

THE
POWER OF
ONE

2018 ANNUAL REPORT



Heartland
FINANCIAL USA, INC.

CORPORATE PROFILE

Founded in 1981, Heartland Financial USA, Inc. is a multibank holding company with assets of over \$11 billion offering uniquely different banking solutions for business and personal clients.

Heartland's independent community banks are in the states of Iowa, Illinois, Wisconsin, New Mexico, Arizona, Montana, Colorado, Minnesota, Kansas, Missouri, Texas and California, with 119 banking locations as of February 27, 2019, serving 91 communities.

The Heartland Vision is to differentiate itself by highlighting its unique position as a community-based commercial banking organization supported by a strong retail delivery system. As one of the top 100 U.S.-based domestic bank holding companies in terms of performance and asset size, Heartland delivers high-quality financial products and services to clients in the Midwest and Western United States.

COMMERCIAL FULL-SERVICE SOLUTIONS:

- ▶ Commercial Lending
- ▶ Deposit Services
- ▶ Treasury Management Services
- ▶ Commercial Card Program
- ▶ Investment Services
- ▶ Wealth Advisory Services
- ▶ Retirement Plan Services
- ▶ Non-Profit
- ▶ Insurance
- ▶ eBanking

FULL-SERVICE PERSONAL BANKING:

- ▶ Checking
- ▶ Savings
- ▶ Home Loans
- ▶ Personal Loans
- ▶ Credit Cards
- ▶ Insurance
- ▶ Investment Services
- ▶ Wealth Advisory Services
- ▶ eBanking

Heartland's common stock is traded through the NASDAQ Global Select Market System under the symbol "HTLF." Complete information about Heartland Financial USA, Inc. is available at www.htlf.com.



FINANCIAL HIGHLIGHTS

For the years ended December 31, 2018, 2017 and 2016 (dollars in thousands, except per share data)

FOR THE YEAR	2018	2017	2016
<i>Net income</i>	\$ 116,998	\$ 75,272	\$ 80,349
<i>Net income, exclusive of tax charge</i>	116,998	85,668	80,349
<i>Net income available to common stockholders</i>	116,959	75,226	80,108
<i>Cash dividends, common</i>	19,318	14,499	12,578
PER SHARE DATA			
<i>Earnings per common share – diluted</i>	\$ 3.52	\$ 2.65	\$ 3.22
<i>Earnings per common share – diluted, exclusive of tax charge</i>	3.52	3.01	3.22
<i>Cash dividends, common</i>	0.59	0.51	0.50
<i>Book value at December 31</i>	38.44	33.07	28.31
AT YEAR END			
<i>Total assets</i>	\$11,408,006	\$ 9,810,739	\$ 8,247,079
<i>Total loans receivable</i>	7,407,697	6,391,464	5,351,719
<i>Total deposits</i>	9,396,429	8,146,909	6,847,411
<i>Total common stockholders' equity</i>	1,325,175	990,519	739,559
FINANCIAL RATIOS			
<i>Return on average total assets</i>	1.09%	0.83%	0.98%
<i>Return on average stockholders' equity</i>	9.93	8.63	11.80
<i>Net interest margin (GAAP)</i>	4.26	4.04	3.95
<i>Net interest margin, fully tax-equivalent (non-GAAP)¹</i>	4.32	4.22	4.13
<i>Average common stockholders' equity to average total assets</i>	10.93	9.68	8.31
<i>Total capital to risk-adjusted assets</i>	13.72	13.45	14.01
<i>Tier 1 capital ratio</i>	12.16	11.70	11.93
<i>Common equity Tier 1 ratio</i>	10.66	10.07	10.09
<i>Tier 1 leverage ratio</i>	9.73	9.20	9.28

¹ Refer to the "Reconciliation of Annualized Net Interest Margin, Fully Tax-Equivalent (non-GAAP)" table on page 40 of the annual report on Form 10-K.



A key aspect of all Heartland companies is being rooted in the communities they serve. Here, Bruce K. Lee, President and CEO, and Lynn B. Fuller, Executive Operating Chairman, meet at the Greater Dubuque Development Corporation (GDDC) headquarters in Dubuque, Iowa. The GDDC works with public and private entities to fuel economic development, and Dubuque Bank and Trust is one of its greatest supporters.

ONE FOCUS.

At Heartland Financial USA, Inc., we celebrate 2018 as a time of listening and responding like never before. Our strengthened focus on teamwork, partnerships and exploration of innovative solutions has met with tangible success. This annual report is the story of our member banks working together with Heartland—sharing expertise, systems and models of excellence—to harness “The Power of One.”

In March of 2018 we “Reached New Heights” by achieving our goal of \$10 billion in assets. In fact, we had a record-setting year, marshalling resources to achieve our strongest financial performance to date and truly delivering on the value of local relationships supported by united and shared resources:

- Record profits of \$117 million—a 55% increase from 2017
- Record total assets of \$11.4 billion
- Diluted earnings per common share of \$3.52 for the year, an increase of \$0.87 per share or 33% from 2017

Achieving the Power of One isn’t happenstance. It requires strong leadership and succession planning that honors the past and embraces the future. In 2018, Bruce K. Lee, President, took the helm as CEO of Heartland and Lynn B. Fuller became Executive Operating Chairman to oversee mergers and acquisitions and investor relations.

Additional changes included Heartland shareholders voting to expand our Board of Directors from nine to eleven members, which strengthens representation across our growing footprint and also enhances director diversity. We would like to thank John Cox

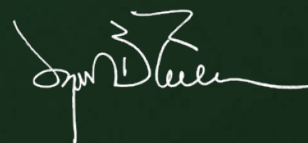
for his dedication and years of service on the Heartland board. We are pleased to welcome Martin Schmitz, Susan Murphy and Jennifer Hopkins as our newest board members.

Perhaps the strongest expression of the Power of One was our growth of total assets in 2018. Through two major acquisitions—Signature Bank based in Minnesota and First Bank & Trust of Texas—the Heartland family welcomed strong teams of experienced bankers dedicated to exceptional customer service. These additions helped us reach a record \$11.4 billion in total assets in 2018. Expansion through organic growth and mergers and acquisitions remains a priority. Our strong focus on growth puts us on track to exceed \$12 billion in total assets by the middle of 2019.

By uniting our organization behind the Power of One concept, all of our entities contribute to the Heartland mission, as well as its values and strengths, to benefit our customers and shareholders. We significantly enhanced the value of shareholder investment in 2018. The Power of One drove our strongest financial performance yet and positions Heartland for even greater success in the years ahead.



BRUCE K. LEE
President and CEO
Heartland Financial
USA, Inc.



LYNN B. FULLER
*Executive Operating
Chairman*
Heartland Financial
USA, Inc.

ONE WORLD.

Helping a small-town company scale global markets

Mystery Ranch® in Bozeman, Montana, is the industry's leading designer and manufacturer of load-bearing backpacks for outdoor enthusiasts, firefighters and the military.

With production facilities in the U.S. and abroad, along with 286 retail outlets, the company's sales and production cycle is not without its challenges. However, by providing the right mix of products and services, Rocky Mountain Bank has been able to do what Mystery Ranch does best—take some weight off its customers' shoulders.

"We got to the point where our needs were too sophisticated for most local banks, and it's unlikely we'd get the attention we need from a large national bank," says Principal and Co-Owner Dana Gleason. "Backed by Heartland, Rocky Mountain Bank has been the perfect fit. We still get to bank locally, and handling requests like foreign wire transfers, large letters of credit and significant funding is well within their capabilities. Questions that used to be met with blank stares at other banks are now met with 'No problem.' The fact that they're willing and able to find solutions to our financial challenges provides immense value."



DANA GLEASON
*Principal and
Co-Owner*
Mystery Ranch



SCOTT SEHNERT
*EVP, Market
President*
Rocky Mountain
Bank



With 50 internal sewers, Mystery Ranch maintains full control of its R&D process, enabling the company to uphold the quality standards that greatly differentiate it from competitors.



“

Our company exists because of its ability to solve problems for a diverse and demanding group of people, which is exactly what Rocky Mountain Bank does for us.”

— DANA GLEASON
Principal and Co-Owner, Mystery Ranch



“

They're good people who want to help us grow our business, and we appreciate that.”

— DAVE DAVIS
President and CEO, Spahn & Rose Lumber Company

ONE PARTNERSHIP.

Improving operations through a team-based approach

On a mission to run a tight ship, Dave Davis, President and CEO of Spahn & Rose Lumber Company in Dubuque, Iowa, needed more than what most banks can provide.

"In our industry, payment terms are tight and margins are tighter—maintaining healthy cash flow can be a challenge. We knew solutions to our problems existed, and Dubuque Bank and Trust was able to offer them," says Davis. After taking the time to develop a deep understanding of Spahn & Rose's business, DB&T's team of experts delivered a comprehensive solution to reduce operating costs and enable growth.

"Their vendor payment and fleet credit card program has been huge. We receive a percentage of our spend as a rebate and improve our cash flow. The payment cards allow us to get vendors' best pricing for early payments, and then we pay DB&T 30 days later. Operationally, we are able to process millions of dollars of payments effortlessly. We also use their 'buy local' program that helps us grow our business and supports our community by offering our customers financing at 0% interest for an entire year. They also have helped us leverage treasury management solutions to take the burden off our operations. It's exactly the kind of partnership we need in a bank."



DAVE DAVIS
President and CEO
Spahn & Rose
Lumber Company



**SPAHN & ROSE
LUMBER CO.**



**LYNN H. "TUT"
FULLER, M.D.**
President and CEO
Dubuque Bank
and Trust



**DUBUQUE
BANK
AND TRUST**



Spahn & Rose Lumber Company is a 115-year-old family-owned company with 24 locations across three states serving everyone from large-scale contractors to DIY homeowners.



“

“We feel very fortunate to have them as a partner. They’re local and their services are top-notch and can compete with any bank—that makes it a really good relationship.”

— DAVE BUHOLZER
VP of Finance and Co-Owner, Klondike Cheese Company



Klondike Cheese Company is a World Championship Cheese Contest winner employing six Master Cheesemakers® and offering five exceptional products.



ONE CULTURE.

Growing together to embrace opportunity

Built by four generations of cheesemakers, the family-owned Klondike Cheese Company is undoubtedly a master of its craft. Klondike's award-winning cheese continues to draw even greater demand—and to help fill it, Wisconsin Bank & Trust delivers on a special recipe of its own.

"Our relationship with Wisconsin Bank & Trust started back in the '80s, and through the years they've continued to provide the innovative financial products we need. We know we can count on their commitment and the continuity of our relationship. In fact, we've worked with great people for over four decades," says VP of Finance and Co-Owner Dave Buholzer. "Whether it's at the bank or a local basketball game, they're always open and genuinely interested in how things are going.

"As opportunities have come up for us to expand, our banker has always been able to support us. We just completed a 40,000-square-foot addition to house our new automated equipment for making Muenster and Havarti cheeses. It's not just the big things—they're there for the small things, too, like cash sweeps and helping us eliminate fraud with positive pay, which help take administrative burden off our staff. Navigating and managing financials in the ag industry, and dairy farming in particular, can be challenging, so we appreciate their knowledge and expertise."



DAVE BUHOLZER
*VP of Finance and
Co-Owner*
Klondike Cheese
Company



RON MARKHAM
Market President
Wisconsin Bank
& Trust



ONE TRUST.



BILL LAFEVER
President

Bill Doran
Company



JEFFREY HULTMAN
President and CEO
Illinois Bank & Trust



SARILYN NEIBER
Commercial Banker
Illinois Bank & Trust



Helping business bloom

Owned and operated by Bill LaFever, the Bill Doran Company has blossomed into one of the country's largest distributors of high-quality, fresh-cut flowers and floral supplies.

On top of sourcing flowers from 20 countries and servicing customers in 31 states from 22 distribution centers, LaFever has diversified the third-generation, family-owned company and now operates several companies ranging from food and service to staffing services. With growth ever on his mind, LaFever found himself needing more than the garden variety of banking services.

"A key aspect of our model is cutting out the middleman and working directly with growers in South America. Not all banks have the experience or systems to handle those business needs," says LaFever. "Partnering with Illinois Bank & Trust has been exceptional. The ability of their treasury management team to streamline our payments, receivables and wire transfers, and provide fraud protection and so much more is invaluable. Plus, when I find new business opportunities, I know they'll support me. They've taken what used to be a stressful process and made it a breeze."



In addition to running the Bill Doran Company, Bill LaFever is president of the Society of American Florists, an association chartered by an Act of Congress in 1884.



“

The people make the difference.
If you meet the team at Illinois
Bank & Trust, I'd bet you'll end
up banking there.”

— BILL LAFEVER
President, Bill Doran Company



“

The team is the most important part of any company, especially a startup. I'm proud Arizona Bank & Trust is on ours.”

— ANDREW LETO

Founder and Executive Chairman, EmergeTMS

EmergeTMS went from zero to \$100M in revenue in twelve months and aims to be a billion-dollar company in its first five years.



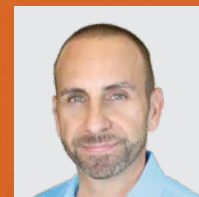
ONE INNOVATION.

Solving modern challenges with forward thinking

After starting and selling a pair of successful multimillion- and billion-dollar companies that each helped revolutionize the transportation logistics industry, Andrew Leto formed his third enterprise, EmergeTMS, the first private-freight marketplace.

Past success aside, in the first five years for startups, 90% of expenses are employee related, and what little profit remains is immediately reinvested in the company. So, Leto found himself facing two significant challenges: managing his tax liability and being able to produce the cash flow required to grow his new venture.

“Tony Hammond at Arizona Bank & Trust gave me my first line of credit back when no one would talk to me. When starting EmergeTMS, I knew he was the guy I wanted on my team.” Taking a holistic approach to Leto’s financial situation, and mindful of the Tax Cuts and Jobs Act, Hammond made a key recommendation. “He suggested an Opportunity Zone strategy, where I’m able to offset capital gains taxes by reinvesting in impoverished areas and creating jobs. Doing so provided a tax credit that pays the salaries of our 80 employees, freeing up resources for us to reinvest and grow. The solution was nothing short of exceptional, which is exactly what I’ve come to expect from the experts at Arizona Bank & Trust.”



ANDREW LETO
*Founder and
Executive
Chairman*
EmergeTMS

Emerge



TONY HAMMOND
*SVP, Commercial
Banking Manager*
Arizona Bank & Trust



ONE FUTURE.

Recognizing the power of female leadership

Female leaders at Heartland come from diverse backgrounds.

Wendy Reynolds was a medical student before she turned business banker. Jennifer Hopkins, who is on the Heartland Board of Directors, was a software engineer who helped lead an IPO. Janet Quick, who has spent over three decades in banking, has seen the wave of inclusion sweep across the industry.

Their individual stories and experiences vary greatly, and therein lies Heartland's strength. This diversity on an individual level creates a more holistic overall perspective—one inclusive of the unique markets and people we serve. Through this diverse input, we enhance our decision-making ability and performance, all to the benefit of customers, employees and shareholders. While each person is unique, they share the common traits that shape our culture.

They're united by talent, ambition and a commitment to our customers and the communities they call home. At Heartland, we value ability, and with that, the courage to speak up, contribute and share expertise so our company can be made stronger. We encourage mentorship and community service, because the sharing of talent, time and treasure is more than a corporate responsibility—it's what drives us. And we celebrate those who set an example for our next generation of leaders.

Today, Heartland is proud to benefit from women in leadership roles. Through their vision, passion and ability to motivate teams, the future of Heartland is stronger than ever.

237

YEARS OF COMBINED
LEADERSHIP
EXPERIENCE

ENGAGED IN

122

MENTORING
RELATIONSHIPS

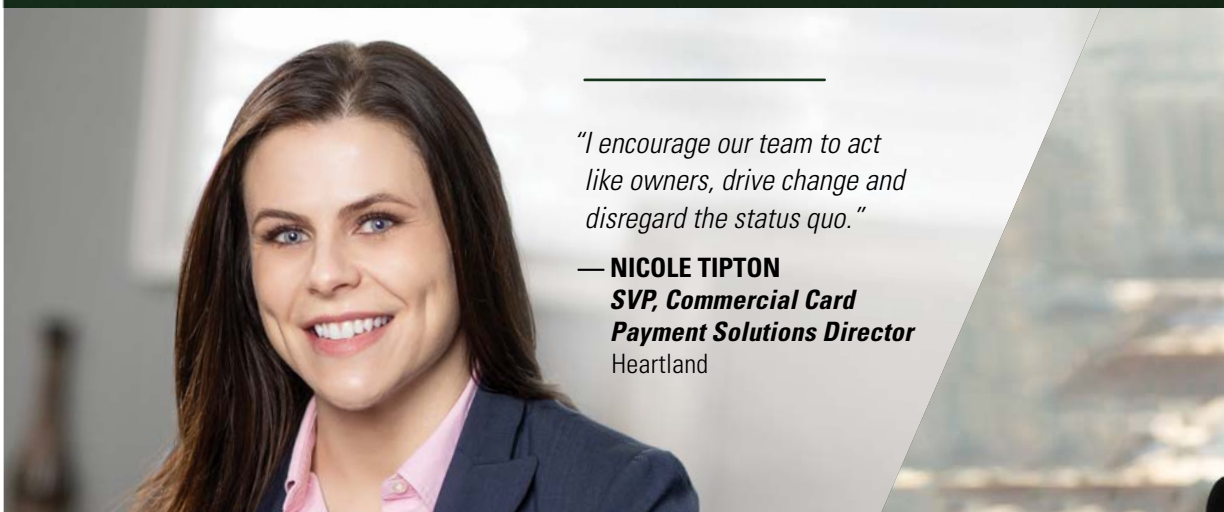
SERVING

35

BOARDS AND
PUBLIC SERVICE
PROJECTS

"I encourage our team to act like owners, drive change and disregard the status quo."

— **NICOLE TIPTON**
SVP, Commercial Card
Payment Solutions Director
Heartland





"The level of young, talented leadership at Heartland is incredible. It allows us to better understand customers and more readily evolve with the changing market."

— **ALLYN PILAND**
EVP, Mortgage President
PrimeWest Mortgage Corp.



JANET QUICK
EVP, Deputy CFO
and Principal Accounting Officer
Heartland

ANGELA KELLEY
SVP, Deputy General Counsel
and Corporate Secretary
Heartland

LAURA HUGHES
EVP, Chief Marketing Officer
Heartland

DEBORAH DETERS
EVP, Chief Human Resources Officer
Heartland

JOANNE SHERWOOD
President and CEO
Citywide Banks

WENDY REYNOLDS
President and CEO
Morrill & Janes Bank and Trust



"As we grow, a key focus will be maintaining the Heartland culture while scaling a more diverse and geographically varied team."

— **JENNIFER HOPKINS**
Heartland Board of Directors (pictured left)

SUSAN MURPHY
Heartland Board of Directors (pictured right)

A CULTURE OF CARING

Giving of time, talent and treasure

Our community banks are rooted and invested in the people they serve.

From mental health and homeless shelters, to diabetes research, breast cancer awareness, urban gardens and nearly everything in between, Heartland organizations, and the employees who make them possible, continuously strive to go beyond their corporate duties and embrace active lives as impactful citizens.

Top right: In July of 2018, 15 Citywide Bank employees volunteered at the Mental Health Center of Denver urban garden complex. The facility offers four acres of gardens as well as an aquaponics greenhouse, and sales of produce at the local farmers' market help fund its health and wellness programs.

Middle right: Arizona Bank & Trust enjoys a long-standing relationship with its local Society of St. Vincent de Paul. This year, its Turkey Tuesday fundraiser helped gather donations to match the bank's \$10,000 commitment, and the effort raised an additional \$23,000 for families in need throughout the Phoenix area.

Bottom right: First Bank & Trust focuses its fundraising efforts on helping cure diabetes. Through six community events organized by the First Bank & Trust team, over \$24,000 was raised for the American Diabetes Association® in 2018.



\$1.9M

TOTAL CHARITABLE
DOLLARS

15.9K

TOTAL VOLUNTEER
HOURS

267

NUMBER OF EMPLOYEES
WHO SERVE ON BOARDS

PILLARS OF GROWTH

Making strategic placements for continued success

Securing our organization's future success is a top priority, which is why we make recruitment, training and succession planning key elements of our corporate strategy. Only by putting the right talent in the right roles can we continue Heartland's legacy of performance.



DAVID PRINCE
EVP, Head of Commercial Banking
Heartland Financial USA, Inc.

In November of 2018, David assumed his new role, in which he is responsible for managing all Heartland's commercial sales development activities, including training and mentoring commercial bankers, business development officers and cash management sales personnel. He has an impressive background and array of experiences across national and regional financial services companies. David has served in leadership roles at National City, GE Capital and most recently, Associated Bank.



JOANNE SHERWOOD
President and CEO
Citywide Banks

Serving Citywide Banks since 2000, Joanne has made significant contributions to the company's continued growth. Having built a solid career and reputation in the banking and financial services industry by focusing on business management, real estate financing, loan portfolio management and leadership development, she is the ideal leader to be promoted to this position. Joanne also serves as the Chair-Elect for the Colorado Bankers Association and is active in numerous local nonprofit organizations.



KEVIN AHERN
EVP, Private Client Services
Heartland Financial USA, Inc.

Kevin joined Heartland in 2016 and was promoted to Executive Vice President, Private Client Services in 2018. He brings over 30 years of proven executive experience in the financial services industry, including commercial banking, investment management and trust, insurance, alternative investments and mergers and acquisitions. His wide-ranging experience will further advance our mission of delivering personalized and innovative financial solutions for our clients as he leads an energized and dedicated team of professionals in managing our complete portfolio of Private Client Services products and services.



WENDY REYNOLDS
President and CEO
Morrill & Janes Bank and Trust

In March of 2018, Wendy was promoted from Senior Vice President and Market President of Citywide Banks in Denver, Colorado, to President and CEO of Morrill & Janes Bank and Trust in Kansas City, Kansas. Bringing over 20 years of commercial and consumer banking experience, she has distinguished herself as a people-oriented collaborator with a proven track record of growing revenue, profits and shareholder value through deep engagement with clients and the community.

STRENGTH IN NUMBERS

Stabilizing against regional economies

The past year saw the strengthening of Heartland's presence in both the northern and southern halves of the country, helping diversify the company's geographic risk profile and propelling it beyond \$11 billion in assets.

In February of 2018, Heartland completed its acquisition of Signature Bancshares, Inc. and its wholly owned subsidiary, Signature Bank. The latter was subsequently merged with Heartland's own Minnesota Bank & Trust, expanding the company's presence in the Twin Cities metro market to two Banking Centers with assets of \$666.6 million as of December 31, 2018.

"We are excited to expand in the vibrant Twin Cities market," says Lynn B. Fuller, Executive Operating Chairman of Heartland. "Signature Bank brought a strong team of experienced bankers focused on providing exceptional customer service. We are pleased Ken Brooks and his team have joined the Minnesota Bank & Trust team to expand and continue our success in the market, while providing the expanded product offerings and innovative delivery channels shared by all of Heartland's family of community banks."

Over 1,000 miles to the south, the purchase of First Bank & Trust Lubbock Bancshares, Inc. and its wholly owned subsidiary First Bank & Trust was completed just three months later. Included with First Bank & Trust was its wholly owned subsidiary offering mortgage lending services, PrimeWest Mortgage Corp. First Bank & Trust had total assets of \$1.11 billion as of December 31, 2018. "We welcome Barry Orr, Greg Garland and the entire First Bank & Trust and PrimeWest teams to Heartland to operate our flagship bank in Texas. With new and expanded products and services, First Bank & Trust will continue to admirably serve the Lubbock and West Texas markets as Heartland's newest billion-dollar charter," says Fuller.



2018 AWARDS



HEARTLAND FINANCIAL USA, INC.



— *Forbes*
Best Bank

- Celebrates 15 years on the Nasdaq
- The Nilson Report:
 - *Commercial Credit Card* has been ranked top 30
 - *P-Card program* three years in a row

FIRST BANK & TRUST

KCBD-NBC Best of the West:

- Best Bank
- Best Mortgage Company
- Best Financial Planning
- Best Ag Lender

WISCONSIN BANK & TRUST

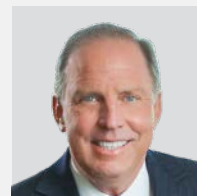
- *BRAVA Magazine* Best Financial Institution in Madison
- *Sheboygan Press* Best of Sheboygan



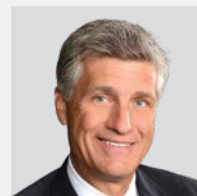
◀ **FIRST BANK & TRUST**

"Joining the Heartland family of banks is a proud step for us and an incredible opportunity for our clients. We are now even better equipped to serve their needs and be of value to their businesses."

— Greg Garland



BARRY ORR
Chairman and CEO
First Bank & Trust



GREG GARLAND
President
First Bank & Trust

◀ **SIGNATURE BANK**

"As our Board of Directors considered our strategic direction in today's complex banking environment, Heartland stood out as an exceptional opportunity. We are delighted to partner with such a well-respected organization."



KENNETH BROOKS
President and CEO
Minnesota Bank & Trust

DUBUQUE BANK AND TRUST

HER Magazine Favorites:
— Top Bank
— Top Insurance Agency

ARIZONA BANK & TRUST

— *Forbes* Best-in-State Bank
— AdvisoryHQ Top Bank in Arizona

NEW MEXICO BANK & TRUST

Rio Rancho Observer's 2018 Readers' Choice Award for Best Bank

CITYWIDE BANKS

Denver Business Journal Top 25 Corporate Philanthropist

ILLINOIS BANK & TRUST

What Rocks Rockford Best of the Rock River Valley Awards for 2018:
— Best Bank
— Best Overall Leadership
— Best Employee Recognition
— Most Philanthropic
— Best Employee Benefits
— Best Overall Company to Work for

IB&T earned placement in the top three for:
— Best Company Party
— Best Workplace Culture

Directors



Lynn B. Fuller
**Executive Operating
Chairman**
Heartland Financial
USA, Inc.
Dubuque, IA



Bruce K. Lee
President and CEO
Heartland Financial
USA, Inc.
Dubuque, IA



Mark C. Falb
Chairman and CEO
Kendall Hunt
Publishing Company
and Westmark
Enterprises, Inc.
Dubuque, IA



Thomas L. Flynn
**Past President
and CEO**
Flynn Ready-Mix
Concrete Co.
Dubuque, IA



Jennifer K. Hopkins
Managing Partner
Crescendo Capital
Partners
Denver, CO



R. Michael McCoy
**Chairman, Ex-Officio
President and CEO**
McCoy Group
Dubuque, IA



Susan G. Murphy
Principal
The Grace
Alliance, LLC
Denver, CO



Kurt M. Saylor
Chairman
Morrill & Janes
Bank and Trust
Company
Merriam, KS



John K. Schmidt
**Senior Vice
President, Chief
Financial Officer**
A.Y. McDonald
Dubuque, IA



Martin J. Schmitz
Chairman
Citywide Banks
Greenwood Village, CO



Duane E. White
**Executive Vice
President and Chief
Product Officer**
Medecision
Minneapolis, MN



Bank and Regional Presidents

From left to right: Jeffrey S. Hultman, Greg Garland, William H. Callahan, Frank E. Walter, Wendy Reynolds, Kevin G. Quinn, Steven E. Ward, Kenneth Brooks, Kevin S. Tenpas, Curtis Chrystal, Barry Orr, Lynn H. "Tut" Fuller, M.D., Joanne C. Sherwood and R. Greg Leyendecker.

Executive Management

Lynn B. Fuller
Executive Operating Chairman

Bruce K. Lee
President and CEO

Kevin W. Ahern
*Executive Vice President,
Private Client Services*

Michael J. Coyle
*Executive Vice President,
Senior General Counsel*

Deborah Deters
*Executive Vice President,
Chief Human Resources Officer*

Brian J. Fox
*Executive Vice President,
Operations*

Lynn H. "Tut" Fuller, M.D.
Executive Vice President

Laura J. Hughes
*Executive Vice President,
Chief Marketing Officer*

R. Greg Leyendecker
*Executive Vice President,
Regional President*

Bryan R. McKeag
*Executive Vice President,
Chief Financial Officer*

J. Daniel Patten
*Executive Vice President,
Finance and Corporate Strategy*

David A. Prince
*Executive Vice President,
Head of Commercial Banking*

Janet M. Quick
*Executive Vice President,
Deputy Chief Financial Officer,
Principal Accounting Officer*

Kevin G. Quinn
*Executive Vice President,
Regional President*

Rodney L. Sloan
*Executive Vice President,
Chief Risk Officer*

Andrew E. Townsend
*Executive Vice President,
Chief Credit Officer*

Steven E. Ward
*Executive Vice President,
Regional President*

Subsidiary Directors and Presidents

► ARIZONA BANK & TRUST

Jerry L. Schwallier,
Board Chair
William H. Callahan,
President and CEO

John D. Benton
Lynn B. Fuller
R. Greg Leyendecker
Paul F. Muscenti
Christian Roe
R. Randy Stolworthy
Dr. Philip To
Frank E. Walter

► CITYWIDE BANKS

Martin J. Schmitz,
Board Chair
Joanne C. Sherwood,
President and CEO

Kevin W. Ahern
Robert Engel
Lynn B. Fuller
Jennifer K. Hopkins
Bruce K. Lee
Susan G. Murphy
Kevin G. Quinn
W. Scott Reichenberg
Mike Zoellner

► DUBUQUE BANK AND TRUST COMPANY

Thomas L. Flynn,
Board Chair
Lynn H. "Tut" Fuller, M.D.,
President and CEO

Chad M. Chandlee
Richard C. Cody
James R. Etheredge
Donnelle M. Fuerste

Lynn B. Fuller
James P. Gantz
Charles D. Glab
Timothy W. Hodge
Douglas J. Horstmann
R. Michael McCoy
James C. Mulgrew
John B. (J.B.) Priest
John K. Schmidt

► FIRST BANK & TRUST

Barry Orr,
Chairman and CEO
Greg Garland,
President

Barry Brown
Bill deTournillon
Lynn B. Fuller
Ricky Green
Bruce K. Lee
R. Bruce Orr
Gary Rothwell

► ILLINOIS BANK & TRUST

Frank E. Walter,
Board Chair
Jeffrey S. Hultman,
President and CEO

Michael K. Broski
Todd B. Colin
John W. Cox, Jr.
Craig A. Erdmier
Damon C. Heim
Martin H. Johnson
Pamela R. Maher
Elizabeth M. Miller
Thomas R. Nelson
Michael J. Rogers
Steven E. Ward
Laurel S. Wurster

► MINNESOTA BANK & TRUST

Steven M. Thul,
Board Chair
Kenneth Brooks,
President and CEO

Timothy S. Clark
Dan Dryer
Lynn B. Fuller
Randy Morgan
Leif Syverson
Steven E. Ward
Duane E. White

► MORRILL & JAMES BANK AND TRUST COMPANY

Kurt M. Saylor,
Chairman
Wendy Reynolds,
President and CEO

Lynn B. Fuller
Rhonda S. McHenry
Kent P. Saylor
Leland M. Walker
Steven E. Ward

► NEW MEXICO BANK & TRUST

Nadyne L. Bicknell,
Board Chair
R. Greg Leyendecker,
President and CEO

Robert W. Eaton
Lynn B. Fuller
Sherman McCorkle
Michael Mechenbier
Ben F. Spencer
Randy Ware

► PREMIER VALLEY BANK

Thomas G. Richards,
Board Chair
Frank E. Walter,
President and CEO

Linda F. East
Lynn B. Fuller
Richard H. Lehman
J. Mike McGowan
J. Todd Mirolla
D. Michael Patrick
Thomas J. Sherman

► ROCKY MOUNTAIN BANK

Wallace E. Anderson,
Board Chair
Kevin S. Tenpas,
President and CEO

Catherine Bergman
Lynn B. Fuller
Pamela K. Mower
Gerald Pearsall
Kevin G. Quinn

► WISCONSIN BANK & TRUST

J. Cory Recknor,
Board Chair
Curtis Chrystal,
President and CEO

John K. Faust
Lynn B. Fuller
Erik A. Huschitt
Ramesh C. Kapur
Jack R. Liebl
Lola L. Roeh
Steven F. Streff
Paul W. Sweeney
Thomas J. Wilkinson

CORPORATE AND INVESTOR INFORMATION

ANNUAL MEETING

The Board of Directors of Heartland Financial USA, Inc. has established Wednesday, May 22, 2019, at 6:00 p.m. Central Daylight Time as the date of the Annual Meeting of Stockholders. We invite all stockholders to attend the meeting, which will be held at the Hotel Julien Dubuque, 200 Main Street, Dubuque, Iowa.

Transfer Agent/Stockholder Services

Inquiries related to stockholder records, stock transfers, changes of ownership, changes of address and dividend payments should be sent to Heartland's transfer agent at the following address: Broadridge Corporate Issuer Solutions, P.O. Box 1342, Brentwood, NY 11717. They may also be contacted by phone at 1.866.741.7520.

Stock Listing

Heartland's common stock is traded on the NASDAQ Global Select Market System under the symbol "HTLF."

Form 10-K and Other Information

The company submits an annual report to the Securities and Exchange Commission on Form 10-K. Stockholders may obtain copies of our Form 10-K without charge by writing to Angela M. Kelley, SVP, Deputy General Counsel and Corporate Secretary, Heartland Financial USA, Inc., 1398 Central Avenue, P.O. Box 778, Dubuque, Iowa 52004-0778. The Form 10-K is also available on the Heartland website under the heading Investor Relations. Securities analysts and other investors seeking additional information about Heartland should contact Bryan R. McKeag, Executive Vice President and Chief Financial Officer, at the above address or call him at 563.589.1994. Additional information is also available at Heartland's website: www.htlf.com.

Dividend Reinvestment and Stock Purchase Plan

Heartland Financial USA, Inc. offers stockholders of record a simple and convenient method of increasing holdings in our company by participating in Heartland's Dividend Reinvestment and Stock Purchase Plan. Participants can directly reinvest dividends and make optional cash purchases to acquire additional shares. They may elect to reinvest dividends on either all or a portion of the shares they hold. Participants may also elect to purchase shares of common stock by making optional cash payments. For additional information regarding the Plan, or to request a copy of the Plan's prospectus, please call Heartland's transfer agent, Broadridge Corporate Issuer Solutions, toll free at 1.866.741.7520.

PROFILE

Mailing Address:
Heartland Financial USA, Inc.
1398 Central Avenue
P.O. Box 778
Dubuque, Iowa 52004-0778
Telephone: 563.589.2100

Independent Auditors

KPMG LLP
Des Moines, Iowa

Corporate Counsel

Dorsey & Whitney LLP
Minneapolis, Minnesota

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2018

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission File Number: 001-15393

HEARTLAND FINANCIAL USA, INC.

(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

42-1405748

(I.R.S. Employer identification number)

1398 Central Avenue, Dubuque, Iowa 52001

(Address of principal executive offices) (Zip Code)

(563) 589-2100

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Class

Common Stock \$1.00 par value

Preferred Share Purchase Rights

Name of Each Exchange on Which Registered

The Nasdaq Global Select Market

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.

Yes ☐ No ☒

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the Registrant has submitted electronically, every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the Registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the Registrant is a shell company (as defined in Exchange Act Rule 12b-2). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant (assuming, for purposes of this calculation only, that the Registrant's directors, executive officers and greater than 10% shareholders are affiliates of the Registrant), based on the last sales price quoted on the Nasdaq Global Select Market on June 30, 2018, the last business day of the registrant's most recently completed second fiscal quarter, was approximately \$1,777,169,199.

As of February 26, 2019, the Registrant had issued and outstanding 34,568,232 shares of common stock, \$1.00 par value per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the 2019 Annual Meeting of Stockholders are incorporated by reference into Part III.

HEARTLAND FINANCIAL USA, INC.
Form 10-K Annual Report
Table of Contents

Part I

[Item 1. Business](#)

A. General Description

B. Market Areas

C. Competition

D. Employees

E. Internet Access

F. Supervision and Regulation

[Item 1A. Risk Factors](#)

[Item 1B. Unresolved Staff Comments](#)

[Item 2. Properties](#)

[Item 3. Legal Proceedings](#)

[Item 4. Mine Safety Disclosures](#)

[Executive Officers](#)

Part II

[Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities](#)

[Item 6. Selected Financial Data](#)

[Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations](#)

[Item 7A. Quantitative and Qualitative Disclosures About Market Risk](#)

[Item 8. Financial Statements and Supplementary Data](#)

[Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure](#)

[Item 9A. Controls and Procedures](#)

[Item 9B. Other Information](#)

Part III

[Item 10. Directors, Executive Officers and Corporate Governance](#)

[Item 11. Executive Compensation](#)

[Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters](#)

[Item 13. Certain Relationships and Related Transactions, and Director Independence](#)

[Item 14. Principal Accountant Fees and Services](#)

Part IV

[Item 15. Exhibits and Financial Statement Schedules](#)

[Item 16. 10-K Summary](#)

[Index of Exhibits](#)

PART I

SAFE HARBOR STATEMENT

This Annual Report on Form 10-K (including information incorporated by reference) contains, and future oral and written statements of Heartland Financial USA, Inc. and its management may contain, forward-looking statements, within the meaning of such term in the Private Securities Litigation Reform Act of 1995, with respect to the financial condition, results of operations, plans, objectives, future performance and business of Heartland. Forward-looking statements, which may be based upon beliefs, expectations and assumptions of Heartland's management and on information currently available to management, are generally identifiable by the use of words such as "believe", "expect", "anticipate", "plan", "intend", "estimate", "may", "will", "would", "could", "should" or other similar expressions. Additionally, all statements in this Annual Report on Form 10-K, including forward-looking statements, speak only as of the date they are made, and Heartland undertakes no obligation to update any statement in light of new information or future events.

Heartland's ability to predict results or the actual effect of future plans or strategies is inherently uncertain. The factors which could have a material adverse effect on the operations and future prospects of Heartland are detailed in the "Risk Factors" section included under Item 1A. of Part I of this Annual Report on Form 10-K. These risks and uncertainties should be considered in evaluating forward-looking statements and undue reliance should not be placed on such statements.

ITEM 1. BUSINESS

A. GENERAL DESCRIPTION

Heartland Financial USA, Inc. (individually referred to herein as "Parent Company" and collectively with all of its subsidiaries and affiliates referred to herein as "Heartland," "we," "us," or "our") is a multi-bank holding company registered under the Bank Holding Company Act of 1956, as amended (the "BHCA"), that was originally formed in the state of Iowa in 1981 and reincorporated in the State of Delaware in 1993. Heartland's headquarters are located at 1398 Central Avenue, Dubuque, Iowa. Our website address is www.htlf.com. You can access, free of charge, our filings with the Securities and Exchange Commission (the "SEC"), including our Annual Report on Form 10-K, our quarterly reports on Form 10-Q, current reports on Form 8-K and any other amendments to those reports, at our website under the Investor Relations tab, or at the SEC website at www.sec.gov. Proxy materials for our upcoming 2019 Annual Shareholders Meeting to be held on May 22, 2019, will be available electronically via a link on our website at www.htlf.com.

At December 31, 2018, Heartland had total assets of \$11.41 billion, total loans held to maturity of \$7.41 billion and total deposits of \$9.40 billion. Heartland's total stockholders' equity as of December 31, 2018, was \$1.33 billion. Net income available to common stockholders for 2018 was \$117.0 million.

Heartland conducts a community banking business through 11 independently chartered community banks (collectively, the "Banks") operating in the states of Iowa, Illinois, Wisconsin, New Mexico, Arizona, Montana, Colorado, Minnesota, Kansas, Missouri, Texas and California. All Banks are members of the Federal Deposit Insurance Corporation (the "FDIC"). Listed below are the Banks, which, as of the date of this Annual Report on Form 10-K, operate a total of 119 banking locations:

- Dubuque Bank and Trust Company, Dubuque, Iowa, is chartered under the laws of the state of Iowa.
- Illinois Bank & Trust, Rockford, Illinois, is chartered under the laws of the state of Illinois.
- Wisconsin Bank & Trust, Madison, Wisconsin, is chartered under the laws of the state of Wisconsin.
- New Mexico Bank & Trust, Albuquerque, New Mexico, is chartered under the laws of the state of New Mexico.
- Rocky Mountain Bank, Billings, Montana, is chartered under the laws of the state of Montana.
- Arizona Bank & Trust, Phoenix, Arizona, is chartered under the laws of the state of Arizona.
- Citywide Banks, Denver, Colorado, is chartered under the laws of the state of Colorado.
- Minnesota Bank & Trust, Edina, Minnesota, is chartered under the laws of the state of Minnesota.
- Morrill & Janes Bank and Trust Company, Merriam, Kansas, is chartered under the laws of the state of Kansas.
- Premier Valley Bank, Fresno, California, is chartered under the laws of the state of California.
- First Bank & Trust, Lubbock, Texas, is chartered under the laws of the state of Texas.

Dubuque Bank and Trust Company also has two wholly-owned non-bank subsidiaries:

- DB&T Insurance, Inc., a multi-line insurance agency, with one wholly-owned subsidiary:
 - Heartland Financial USA, Inc. Insurance Services, a multi-line insurance agency with the primary purpose of providing online insurance products to consumers and small business clients in Bank markets.
- DB&T Community Development Corp., a community development company with the primary purpose of partnering in low-income housing and historic rehabilitation projects.

First Bank & Trust has one wholly-owned mortgage company:

- PrimeWest Mortgage Corporation, a mortgage company with the primary purpose of originating, selling and servicing residential mortgage loans. The loans are primarily sold into the secondary market with mortgage servicing rights retained.

Heartland has two active non-bank subsidiaries as listed below:

- Heartland Community Development Inc., a property management company with the primary purpose of holding and managing certain nonperforming assets acquired from the Banks.
- Citizens Finance Parent Co., a consumer finance company with two wholly-owned companies:
 - Citizens Finance Co., a consumer finance company with offices in Iowa and Wisconsin.
 - Citizens Finance of Illinois Co., a consumer finance company with offices in Illinois.

Prior to December 31, 2018, Heartland decided to exit the consumer finance business and entered into an agreement to sell the loan portfolios of Citizens Finance Co. and Citizens Finance of Illinois Co. The transaction closed on January 11, 2019. The offices in Iowa and Wisconsin closed on February 1, 2019, and the offices in Illinois closed on February 11, 2019.

In addition, as of December 31, 2018, Heartland had trust preferred securities issued through special purpose trust subsidiaries formed for the purpose of offering cumulative capital securities, including Heartland Financial Statutory Trust IV, Heartland Financial Statutory Trust V, Heartland Financial Statutory Trust VI, Heartland Financial Statutory Trust VII, Morrill Statutory Trust I, Morrill Statutory Trust II, Sheboygan Statutory Trust I, CBNM Capital Trust I, Citywide Capital Trust III, Citywide Capital Trust IV, Citywide Capital Trust V, OCGI Statutory Trust III and OCGI Capital Trust IV.

All of Heartland's subsidiaries were wholly owned as of December 31, 2018.

The principal business of our Banks consists of making loans to and accepting deposits from businesses and individuals. Our Banks provide full service commercial and retail banking in their communities. Both our loans and our deposits are generated primarily through strong banking and community relationships, and through management that is actively involved in the community. Our lending and investment activities are funded primarily by core deposits. This stable source of funding is achieved by developing strong banking relationships with customers through value-added product offerings, competitive market pricing, convenience and high-touch personal service. Deposit products, which are insured by the FDIC to the full extent permitted by law, include checking and other demand deposit accounts, NOW accounts, savings accounts, money market accounts, certificates of deposit, individual retirement accounts, health savings accounts and other time deposits. Loan products include commercial and industrial, commercial real estate, small business, agricultural, real estate mortgage, consumer, and credit cards for commercial, business and personal use.

We enhance the customer-centric local services of our Banks with a full complement of value-added services, including wealth management, investment and insurance services. We provide contemporary technology solutions that provide our customers convenient electronic banking services and client access to account information through business and personal online banking, mobile banking, bill payment, remote deposit capture, treasury management services, credit and debit cards and automated teller machines.

Business Model and Operating Philosophy

Heartland's operating philosophy is to maximize the benefits of a community banking model by:

1. Creating strong community ties through customer-centric local bank delivery of products and services.
 - Deeply rooted local leadership and boards
 - Local community knowledge and relationships
 - Local decision-making
 - Independent charters
 - Locally recognized brands
 - Commitment to an exceptional customer experience
2. Providing extensive banking services to increase revenue.
 - Full range of commercial products, including government guaranteed lending and treasury management services
 - Private client services, including investment management, trust, retirement plans and brokerage and investment services
 - Convenient and competitive retail products and services
 - Residential mortgage origination
 - Providing added client value through consultative relationship building
3. Centralizing back-office operations for efficiency.
 - Leverage expertise across all Banks
 - Contemporary technology for account processing and delivery systems
 - Efficient back-office support for loan processing and deposit operations
 - Centralized loan underwriting and collections
 - Centralized loss management and risk analysis
 - Centralized support for other professional services, including human resources, marketing, legal, compliance, finance, administration, internal audit, investment management, customer support and facilities

We believe the personal and professional service we offer to our customers provides an appealing alternative to the service provided by the "megabanks." While we are committed to a community banking philosophy, we believe our size, combined with our robust suite of financial products and services, allows us to effectively compete in our respective market areas. To remain price competitive, we also believe that we must manage expenses and gain economies of scale by centralizing back office support functions. Although each of our Banks operates under the direction of its own board of directors, we have standard operating policies regarding asset/liability management, liquidity management, investment management, and lending and deposit structure management.

Another component of our operating strategy is to encourage all directors, officers and employees to maintain a strong ownership interest in Heartland. We have established ownership guidelines for our directors and executive management and have an employee stock purchase plan available to employees.

We maintain a strong community commitment by encouraging the active participation of our employees, officers and board members in local charitable, civic, school, religious and community development activities.

Acquisition and Branch Optimization Strategy

Our primary objectives are to increase profitability and diversify our market area and asset base by expanding through acquisitions and to grow organically by increasing our customer base in the markets we serve. In the current environment, we are continuing to seek opportunities for growth through acquisitions. Although we are focused on opportunities in our existing and adjacent markets, we would consider acquisitions in new growth markets if they fit our business model, support our customer-centric culture, provide a sufficient return on investment and would be accretive to earnings within the first year of combined operations. We typically consider acquisitions of established financial institutions, primarily commercial banks or thrifts.

In recent years, we have focused on markets with growth potential in the Midwestern and Western regions of the United States. Our strategy is to balance the growth in our Western markets with the stability of our Midwestern markets.

Through acquisition and organic growth, our goal is to reach at least \$1 billion in assets in each state where Heartland operates. As of December 31, 2018, Dubuque Bank and Trust Company, Wisconsin Bank & Trust, New Mexico Bank & Trust, Citywide Banks and First Bank & Trust each have assets over \$1 billion.

Due to changes in the competitive landscape and our customers' banking behaviors, we selectively sold, consolidated and closed branches in 2018. We also entered into an agreement to sell our consumer finance company. These sales, consolidations, and closures are expected to result in the reduction of nine bank branches and fourteen consumer finance offices across our footprint once the sales are completed in the first half of 2019. We anticipate these strategic activities will provide the resources to support our investments in areas that improve our customer experiences and fuel our organic growth. As a result of our ongoing branch optimization, we may complete additional, selective reductions in our branch network in 2019.

The following table provides information about the implementation of Heartland's expansion strategy:

Year	Name	De Novo	Acquisition	Merged Into
1988	Citizens Finance Co.		X	N/A
1989	Key City Bank		X	Dubuque Bank and Trust Company
1991	Farley State Bank		X	Dubuque Bank and Trust Company
1992	Galena State Bank & Trust Co.		X	Illinois Bank & Trust (2015)
1994	First Community Bank		X	Dubuque Bank and Trust Company (2011)
1995	Riverside Community Bank ⁽¹⁾	X		N/A
1997	Cottage Grove State Bank ⁽²⁾		X	N/A
1998	New Mexico Bank & Trust	X		N/A
1999	Bank One Monroe (branch)		X	Wisconsin Bank & Trust
2000	First National Bank of Clovis		X	New Mexico Bank & Trust
2003	Arizona Bank & Trust	X		N/A
2004	Rocky Mountain Bank		X	N/A
2006	Summit Bank & Trust ⁽³⁾	X		N/A
2006	Bank of the Southwest		X	Arizona Bank & Trust
2008	Minnesota Bank & Trust	X		N/A
2009	Elizabeth State Bank		X	Galena State Bank & Trust Co. ⁽⁴⁾
2012	Liberty Bank, FSB (three branches)		X	Dubuque Bank and Trust Company
2012	First National Bank Platteville		X	Wisconsin Bank & Trust
2012	Heritage Bank, N.A.		X	Arizona Bank & Trust
2013	Morrill & Janes Bank and Trust Company		X	N/A
2013	Freedom Bank		X	Illinois Bank & Trust (2014)
2015	Community Bank & Trust (Sheboygan)		X	Wisconsin Bank & Trust
2015	Community Bank (Santa Fe)		X	New Mexico Bank & Trust
2015	First Scottsdale Bank, N.A.		X	Arizona Bank & Trust
2015	Premier Valley Bank		X	N/A
2016	Centennial Bank ⁽³⁾		X	Summit Bank & Trust ⁽³⁾
2017	Founders Community Bank		X	Premier Valley Bank
2017	Citywide Banks		X	Centennial Bank and Trust ⁽⁵⁾
2018	Signature Bank		X	Minnesota Bank & Trust
2018	First Bank & Trust		X	N/A

(1) Riverside Community Bank changed its name to Illinois Bank & Trust in 2014.

(2) Cottage Grove State Bank was renamed Wisconsin Community Bank upon acquisition and subsequently changed its name to Wisconsin Bank & Trust.

(3) Summit Bank & Trust changed its name to Centennial Bank and Trust upon the acquisition of Centennial Bank.

(4) Galena State Bank & Trust Co. was merged into Illinois Bank & Trust in 2015.

(5) Centennial Bank and Trust changed its name to Citywide Banks upon the acquisition of Citywide Banks.

On January 16, 2019, Heartland entered into a definitive merger agreement to acquire Blue Valley Ban Corp., and its wholly-owned subsidiary, Bank of Blue Valley, headquartered in Overland Park, Kansas. As of the announcement date, the transaction, in which all of the issued and outstanding shares of the Blue Valley Ban Corp. stock will be exchanged for shares of Heartland common stock, was valued at approximately \$93.9 million. Simultaneous with the closing of the transaction, Bank of Blue Valley will merge into Heartland's Kansas-based subsidiary, Morrill & Janes Bank and Trust Company, and the combined entity will operate as Bank of Blue Valley. The amount of the merger consideration is subject to fluctuations in the price of Heartland common stock and certain potential adjustments, and the transaction is subject to customary closing conditions. The transaction is expected to close in the second quarter of 2019 with a systems conversion planned for the third quarter of 2019. As of December 31, 2018, Bank of Blue Valley had total assets of approximately \$715.1 million, which included approximately \$561.3 million of gross loans

outstanding, and approximately \$562.6 million of deposits. Because the merger agreement was signed on January 16, 2019, and the transaction is expected to close in the second quarter of 2019, the transaction has no impact on Heartland's 2018 consolidated financial statements.

Primary Business Lines

General

We are engaged in the business of community banking, and operate as a single business segment. Previously, we had operated as two business segments: community banking and retail mortgage banking services. We decided to fully outsource our legacy residential real estate lending business beginning in the fourth quarter of 2018, as more fully described in the section entitled "Residential Real Estate Mortgage Lending," and as a result, the retail mortgage banking services segment was eliminated.

Our Banks provide a wide range of commercial, small business and consumer banking services to businesses, including public sector and non-profit entities, and to individuals. We provide a contemporary menu of traditional and non-traditional service channels including online banking, mobile banking and telephone banking. Our Banks provide a comprehensive suite of banking services comprised of competitively priced deposit and innovative credit offerings, along with treasury management and private client services.

Our bankers actively solicit the business of new companies entering their market areas as well as established companies in their respective business communities. We believe that the Banks are successful in attracting new customers in their markets through professional service, a suite of comprehensive banking products, competitive pricing, innovative credit facilities, convenient locations and proactive communications. Our primary lines of business are described below.

Commercial Banking

Our Banks have a strong commercial loan base generated primarily through business networks and personal relationships in the communities they serve. The current portfolios of the Banks reflect the businesses in those communities and include a wide range of business loans, including lines of credit for working capital and operational purposes and term loans for the acquisition of equipment and real estate. Although most loans are made on a secured basis, loans may be made on an unsecured basis where warranted by the overall financial condition of the borrower. Generally, terms of commercial business loans range from one to five years.

Commercial bankers at the Banks provide a consultative customer-centric approach utilizing the comprehensive suite of banking products and services to deliver tailored solutions to the client in an organized and efficient manner both for the client and the bank. Bankers are trained and experienced in providing consultative solutions to clients to assist them in accomplishing their business strategies and objectives. The suite of banking services used to accompany this approach are developed to be at the highest level in the industry and can be customized to fit the objectives of the client.

Closely integrated with our loan programs is a significant emphasis on treasury management services that enhance our business clients' ability to monitor, accumulate and disburse funds efficiently. Our treasury management has five basic functions:

- collection;
- disbursement;
- management of cash;
- information reporting; and
- fraud detection and prevention.

Our treasury management services suite includes online banking and bill payment, automated clearing house ("ACH") services, wire transfer, zero balance accounts, transaction reporting, lock box services, remote deposit capture, accounts receivable solutions, commercial purchasing cards, merchant credit card services, investment sweep accounts, reconciliation services, foreign exchange and several fraud prevention services, including check and electronic positive pay, and virus/malware protection service.

Many of the businesses in the communities we serve are small to mid-sized businesses, and commercial lending to small businesses has been, and continues to be, an emphasis for the Banks. The table below shows the certifications granted to the Banks from the United States Small Business Administration ("SBA") and United States Department of Agriculture (the "USDA") Rural Development Business and Industry loan program.

Bank	SBA Express Lender	SBA Preferred Lender	SBA Export Express	USDA Certified Lender
Dubuque Bank and Trust Company	X			
Illinois Bank & Trust	X			
Wisconsin Bank & Trust	X	X		X
New Mexico Bank & Trust	X	X	X	
Arizona Bank & Trust	X			
Rocky Mountain Bank	X	X		
Citywide Banks	X			
Minnesota Bank & Trust	X			
Morrill & Janes Bank and Trust Company	X	X	X	
Premier Valley Bank	X	X	X	
First Bank & Trust	X	X		

Our commercial loans are primarily made based on the identified cash flow of the borrower and secondarily on the underlying collateral provided by the borrower. We value the collateral for most of these loans based upon its estimated fair market value and require personal guarantees in most instances. The primary repayment risks of commercial loans are that the cash flow of the borrowers may be unpredictable, and the collateral securing these loans may fluctuate in value.

In order to limit underwriting risk, we are committed to ensuring that all loan personnel are well trained. We use a third-party assessment to assess the credit skills and training needs for our loan personnel, and we have developed specific individualized training. All new lending personnel are expected to complete a similar diagnostic training program. Centralized staff in the credit administration department assists all of the commercial and agricultural lending officers of the Banks in the analysis and underwriting of credit.

In addition to the lending personnel of the Banks reporting to their respective board of directors, we use an internal loan review function to analyze credits of the Banks and provide periodic reports to their boards of directors. To reduce the risk of loss, we have processes to help identify problem loans early, and we aggressively seek resolution of credit problems.

As a result of the economic recession between 2008 and 2011, an internal Special Assets group was formed to focus on resolving assets. Commercial or agricultural loans in a default or workout status are assigned to the Special Assets group. Special Assets personnel are also responsible for marketing repossessed properties and meet with representatives from each Bank on a quarterly basis.

Small Business Banking

In 2013, Heartland established a Small Business Lending Center dedicated to serving the credit needs of small businesses with annual sales generally under \$5 million. The Small Business Lending Center is designed to provide quick turnaround on small business customer credit requests on a wide variety of credit products. We believe that small businesses are an underserved market segment and see additional opportunity in serving this market with competitively priced deposit offerings and convenient electronic banking services, as well as wealth management, retirement plan services and brokerage services. The Banks have designated business bankers and banking center managers that serve the distinct banking needs of this customer segment.

Agricultural Loans

Agricultural loans are emphasized by those Banks with operations in and around rural areas, including Dubuque Bank and Trust Company, Rocky Mountain Bank, Wisconsin Bank & Trust's Monroe and Platteville banking centers, New Mexico Bank & Trust's Clovis banking offices, Morrill & Janes Bank & Trust Company's northeast Kansas banking offices, and First Bank & Trust. Agricultural loans constituted approximately 8% of our total loan portfolio at December 31, 2018. Dubuque Bank and Trust Company, Wisconsin Bank & Trust and Morrill & Janes Bank and Trust Company are designated as Preferred Lenders by the USDA Farm Service Agency (the "FSA"). In making agricultural loans, we have policies designating a primary lending area for

each Bank, in which a majority of its agricultural operating and real estate loans are made. Under this policy, loans in a secondary market area must be secured by real estate.

Agricultural loans, many of which are secured by crops, machinery and real estate, are provided to finance capital improvements and farm operations as well as acquisitions of livestock and machinery. Agricultural loans present unique credit risks relating to adverse weather conditions, loss of livestock due to disease or other factors, declines in market prices for agricultural products and the impact of government regulations. The ultimate repayment of agricultural loans is dependent upon the profitable operation or management of the agricultural entity.

In underwriting agricultural loans, the lending officers of the Banks work closely with their customers to review budgets and cash flow projections for the ensuing crop year. These budgets and cash flow projections are monitored closely during the year and reviewed with the customers at least annually. The Banks also work closely with governmental agencies, including the FSA, to help agricultural customers obtain credit enhancement products such as loan guarantees, interest assistance and crop insurance.

Residential Real Estate Mortgage Lending

Heartland's residential real estate mortgage lending business has experienced low and declining profitability over the past several years, and competitive changes have evolved in the residential real estate lending market, which would have required significant investments in technology and process changes for Heartland to remain competitive. In response, Heartland decided to fully outsource its legacy residential real estate mortgage lending business, which was completed during the fourth quarter of 2018, by entering into arrangements with third parties to offer residential mortgage loans to customers in many of our markets. In addition, with our acquisition in 2018 of First Bank & Trust in Lubbock, Texas, we acquired its wholly owned mortgage subsidiary, PrimeWest Mortgage Corporation. PrimeWest Mortgage Corporation was not included in the outsourcing changes and continues to provide mortgage loans to customers in Texas and has expanded to also serve the mortgage needs of our customers in several of our southwestern markets. Our mortgage servicing unit, which operates as a division of Dubuque Bank and Trust Company, continues to service mortgage loans that were sold into the secondary market prior to the outsourcing of our legacy mortgage lending business. Residential mortgage loans originated after the transition through third parties are not being serviced by us. PrimeWest Mortgage Corporation continues to service the loans it sells into the secondary market. At December 31, 2018, residential real estate mortgage loans serviced, primarily for government sponsored entities ("GSE's"), totaled \$4.10 billion, of which \$648.9 million are serviced by PrimeWest Mortgage Corporation.

Dubuque Bank and Trust Company has been a Ginnie Mae ("GNMA") issuer since 2012 for the GNMA I and II single-family mortgage-backed securities program. As a GNMA issuer, Dubuque Bank and Trust Company is allowed to pool and securitize FHA loans, VA loans, and Department of Agriculture's Rural Development loans. Beginning July 1, 2017, any GNMA government guaranteed residential real estate loans originated by Heartland's banks are sold into the secondary market with servicing released.

Retail Banking

A wide variety of retail banking services are delivered through our 119 banking centers. Services include checking, savings, money market accounts, certificates of deposit, individual retirement accounts ("IRAs"), health savings accounts ("HSAs") and consumer credit cards. Brokerage services, including fixed rate annuity products are also provided in many locations. Consumer lending services of the Banks include a broad array of consumer loans, including motor vehicle, home improvement, home equity lines of credit ("HELOC"), fixed rate home equity and personal lines of credit. Consumer loans typically have shorter terms, lower balances, higher yields and higher risks of default than one- to four-family residential mortgage loans. Consumer loan collections are dependent on the borrower's continuing financial stability, and are therefore more likely to be affected by adverse personal circumstances.

Our Banks continue to enhance our retail customers' banking experience through the addition of secure electronic banking options including on-line account opening and mobile banking. Our retail customers receive high-touch service in our banking center locations and further enjoy the convenience of on-line bill pay, mobile deposit, and 24-hour access to account detail. As technology advances, we are committed to offering our customers the convenience of online and mobile delivery channels with the security they expect.

Private Client Services

Dubuque Bank and Trust Company, Illinois Bank & Trust, Wisconsin Bank & Trust, New Mexico Bank & Trust, Arizona Bank & Trust, Citywide Banks, Minnesota Bank & Trust, Morrill & Janes Bank and Trust Company and First Bank & Trust offer trust and investment services in their respective communities. In the Heartland markets that do not yet warrant a full trust department, the sales and administration of trust and investment services is performed by Dubuque Bank and Trust Company personnel. As of December 31, 2018, total trust assets under management were \$2.38 billion. Collectively, the Banks provide a full complement of trust, investment and financial planning services for individuals and corporations. Heartland also specializes in Retirement Plan Services, offering business clients customized 401(k), 403(b) and Profit Sharing plans.

Heartland has contracted with LPL Financial Institution Services, a division of LPL Financial, to operate independent securities brokerage offices at all of the Banks. Through LPL Financial, Heartland offers a full array of investment services including mutual funds, annuities, retirement products, education savings products, brokerage services, employer sponsored plans and insurance products. A complete line of vehicle, property and casualty, life and disability insurance is also offered by Heartland through DB&T Insurance, Inc. and Heartland Financial USA, Inc. Insurance Services.

B. MARKET AREAS

Heartland is a geographically diversified company with a Midwestern and Western franchise, which balances the risk of regional economic fluctuations. In general, we view our Midwest markets as stable with slower growth prospects and the West as offering greater opportunities for growth accompanied by the potential of wider economic swings. We strive to balance the growth in our Western markets with the stability of our Midwestern markets. The following table sets forth certain information about the offices and total deposits of each of the Banks as of December 31, 2018, (dollars in thousands):

Charter State	Bank Name	Banking Locations	Market Areas Served	Total Bank Deposits
IA	Dubuque Bank and Trust Company	8	Dubuque MSA	\$ 1,214,541
		2	Lee County ⁽¹⁾	
IL	Illinois Bank & Trust	2	Galena	\$ 715,482
		2	Jo Daviess County	
		4	Rockford MSA	
		2	Whiteside County ⁽¹⁾	
WI	Wisconsin Bank & Trust	3	Madison MSA	\$ 927,821
		1	Green Bay MSA	
		7	Sheboygan MSA ⁽²⁾	
		1	Calumet County ⁽²⁾	
		2	Milwaukee County	
		2	Grant County	
		1	Green County	
NM	New Mexico Bank & Trust	9	Albuquerque MSA	\$ 1,307,464
		2	Santa Fe MSA	
		3	Clovis MSA	
		2	Rio Arriba County	
		1	Los Alamos County	
AZ	Arizona Bank & Trust	7	Phoenix MSA	\$ 574,762
MT	Rocky Mountain Bank	2	Billings MSA	\$ 424,700
		2	Flathead County	
		1	Gallatin County	
		1	Ravalli County	
		1	Jefferson County	
		1	Sanders County	
		1	Sheridan County	

Charter State	Bank Name	Banking Locations	Market Areas Served	Total Bank Deposits
CO	Citywide Banks	11	Denver MSA	\$ 1,848,373
		4	Jefferson County	
		2	Arapahoe County	
		2	Boulder County	
		2	Eagle County	
		1	Grand County	
		1	Routt County ⁽³⁾	
		1	Clear Creek County	
		1	Summit County	
MN	Minnesota Bank & Trust	2	Minneapolis/St. Paul MSA	\$ 560,399
KS	Morrill & Janes Bank and Trust Company	4	Kansas City MSA	\$ 489,471
		1	Nemaha County	
		2	Brown County	
		1	Atchison County	
		1	Dallas, TX MSA ⁽⁴⁾	
CA	Premier Valley Bank	1	Fresno MSA	\$ 639,194
		1	Madera County	
		1	Mariposa County	
		4	San Luis Obispo County	
TX	First Bank & Trust	1	Tuolumne County	\$ 861,629
		4	Lubbock, TX MSA	
		2	Lynn County	
		1	Mitchell County	
		1	Scurry County	

(1) Subsequent to December 31, 2018, Heartland entered into an agreement to sell these locations. The transaction is expected to close in the first half of 2019.

(2) Prior to December 31, 2018, Heartland entered into an agreement to sell one location in the Sheboygan MSA and one location in Calumet County. The transaction closed on February 22, 2019.

(3) Prior to December 31, 2018, Heartland entered into an agreement to sell this location. The transaction is expected to close in the first half of 2019.

(4) Subsequent to December 31, 2018, the loans and deposits of this location were transferred to Heartland's First Bank & Trust subsidiary.

Heartland's consumer finance company, Citizens Finance Parent Co., operates two subsidiary companies in the following locations:

Citizens Finance Co. ⁽¹⁾	Citizens Finance of Illinois Co. ⁽¹⁾
• Cedar Rapids, IA	• Aurora, IL
• Davenport, IA	• Crystal Lake, IL
• Des Moines, IA	• Elgin, IL
• Dubuque, IA	• Loves Park, IL
• Appleton, WI	• Peoria, IL
• Madison, WI	• Springfield, IL
• Milwaukee, WI	• Tinley Park, IL

(1) Prior to December 31, 2018, Heartland decided to exit the consumer finance business and entered into an agreement to sell the loan portfolios of Citizens Finance Co. and Citizens Finance of Illinois Co. The transaction closed on January 11, 2019. The offices in Iowa and Wisconsin closed on February 1, 2019, and the offices in Illinois closed on February 11, 2019.

C. COMPETITION

We face direct competition for deposits, loans and other financial related services. To compete effectively, develop our market share, maintain flexibility and keep pace with changing economic and social conditions, we continuously refine and develop our banking products and services. We have found the principal methods of competing in the financial services industry are through personal service, product selection, convenience and technology.

The market areas of the Banks are highly competitive, and our competitors are comprised of other commercial banks, credit unions, thrifts, stock brokers, mutual fund companies, mortgage companies and loan production offices, insurance companies and on-line providers and other non-bank financial service companies. Some of these competitors are local, while others are regional, national or global.

Under the Gramm-Leach-Bliley Act, effective in 2000, securities firms and insurance companies that elect to become financial holding companies may acquire banks and other financial institutions. As a result of the enactment of the Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") in 2010, substantial changes to the regulation of bank holding companies and their subsidiaries have occurred, significantly changing the regulatory environment in which we operate. The Dodd-Frank Act originally mandated certain enhanced prudential standards for bank holding companies with greater than \$50 billion in total consolidated assets as well as company-run stress tests for firms with greater than \$10 billion in assets. On May 24, 2018, the Economic Growth, Regulatory Relief and Consumer Protection Act (the "Economic Growth Act") was signed into law. The Economic Growth Act exempted bank holding companies under \$100 billion in assets from these requirements immediately upon enactment. This change shifts the increased costs of these requirements to bank holding companies with assets of \$100 billion or more, removing a deterrent to merger and acquisition activity by institutions that were approaching \$50 billion in assets.

The financial services industry is also likely to face heightened competition as technological advances enable more companies to provide financial services. These technological advances may diminish the importance of depository institutions and other financial intermediaries in the transfer of funds between parties.

We believe we are positioned to compete for loans effectively through the array and quality of the credit services we provide, and the high-touch, customer-centric way in which we provide them. We invest in building long-lasting customer relationships, and our strategy is to serve our customers above and beyond their expectations through excellence in customer service and providing banking solutions that are tailored to our customers' needs. We believe that our long-standing presence and commitment to the communities we serve and the personal service we emphasize enhance our ability to compete favorably in attracting and retaining consumer and business customers. We continue to attract deposit-oriented customers by offering personal attention, combined with contemporary electronic banking convenience, professional service and competitive interest rates. The breadth of our product suite, coupled with our superior customer service allows us to compete favorably with our larger competitors.

D. EMPLOYEES

At December 31, 2018, Heartland employed 2,045 full-time equivalent employees, none of whom are covered by a collective bargaining agreement.

E. INTERNET ACCESS

Heartland maintains an Investor Relations website at www.htlf.com. We offer our Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and other reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, free of charge from our website.

F. SUPERVISION AND REGULATION

General

Financial institutions, their holding companies, and their affiliates are extensively regulated under federal and state law. As a result, the growth and earnings performance of Heartland may be affected not only by management decisions and general economic conditions, but also by the requirements of federal and state statutes and by the regulations and policies of various bank regulatory authorities. Both the scope of the laws and regulations and the intensity of the supervision to which Heartland is subject have increased in recent years in response to the financial crisis, as well as other factors such as technological and market changes. Regulatory enforcement and fines have also increased across the banking and financial services sector. Many of these changes have occurred as a result of the Dodd-Frank Act and its implementing regulations, most of which are now in place. While the regulatory environment has entered a period of rebalancing of the post financial crisis framework, notably with the passage of the Economic Growth Act, Heartland expects that its business will remain subject to extensive regulation and supervision.

As a bank holding company with subsidiary banks chartered under the laws of eleven different states, Heartland is regulated by the Board of Governors of the Federal Reserve System (the "Federal Reserve"). Each of the Banks is regulated by the FDIC as its principal federal regulator and one of the following as its state regulator: the Arizona State Banking Department (the "Arizona Department"); the California Department of Business Oversight, Division of Financial Institutions (the "California Division"); the Colorado Department of Regulatory Agencies, Division of Banking (the "Colorado Division"); the Illinois Department of Financial and Professional Regulation (the "Illinois DFPR"); the Iowa Superintendent of Banking (the "Iowa Superintendent"); the State Bank Commissioner of Kansas Division of Banking (the "Kansas Division"); the Minnesota Department of Commerce: Division of Financial Institutions (the "Minnesota Division"); the Montana Division of Banking and Financial Institutions (the "Montana Division"); the New Mexico Financial Institutions Division (the "New Mexico FID"); the Texas Department of Banking (the "Texas Division"); and the Division of Banking of the Wisconsin Department of Financial Institutions (the "Wisconsin DFI").

Federal and state laws and regulations generally applicable to financial institutions regulate, among other things, the scope of business, the kinds and amounts of investments, reserve requirements, capital levels, the establishment of branches, mergers and consolidations and the payment of dividends. This system of supervision and regulation establishes a comprehensive framework for the respective operations of Heartland and its subsidiaries and is intended primarily for the protection of the FDIC-insured deposits and depositors, consumers, the stability of the financial system in the United States, and the health of the national economy, rather than stockholders.

Federal and state banking regulators regularly examine Heartland and its subsidiaries to evaluate their financial condition and monitor their compliance with laws and regulatory policies. Following those exams, Heartland and the Banks are assigned supervisory ratings. These ratings are considered confidential supervisory information and disclosure to third parties is not allowed without permission of the issuing regulator. Violations of laws and regulations or deemed deficiencies in risk management practices may be incorporated into these supervisory ratings. A downgrade in these ratings could limit Heartland's ability to pursue acquisitions or conduct other expansionary activities for a period of time, require new or additional regulatory approvals before engaging in certain other business activities or investments, affect a subsidiary bank's deposit insurance assessment rate, and impose additional recordkeeping and corporate governance requirements, as well as generally increase regulatory scrutiny of Heartland.

Banking and other financial services statutes, regulations and policies are continually under review by Congress, state legislatures and federal and state regulatory agencies. In addition to laws and regulations, state and federal bank regulatory agencies may issue policy statements, interpretive letters and similar written guidance applicable to Heartland and its subsidiaries. Any change in the statutes, regulations or regulatory policies including changes in their interpretation or implementation, may have a material effect on the business of Heartland and its subsidiaries.

This section summarizes material elements of the regulatory framework that applies to Heartland and its subsidiaries. It does not describe all of the statutes, regulations and regulatory policies that apply to us, nor does it disclose all of the requirements of the statutes, regulations and regulatory policies requirements that are described.

Economic Growth, Regulatory Relief and Consumer Protection Act

On May 24, 2018, the Economic Growth Act was signed into law. The immediate impact to Heartland of the Economic Growth Act eases various regulatory requirements, which will reduce the cost to comply with the original Dodd-Frank Act. However, management is continuing to evaluate the impact of other changes affected by the Economic Growth Act.

- Among other regulatory changes, the Economic Growth Act amends various sections of the Dodd-Frank Act, providing relief from Dodd-Frank's enhanced prudential standards and regulatory and company-run stress tests. The Federal Reserve has already stated that it will not take action to require bank holding companies with less than \$100 billion in assets to comply with requirements related to resolution planning, liquidity risk management, internal liquidity stress testing, the liquidity coverage ratio, debt-to-equity limits, and capital planning, even before formal revisions to the regulations that implement these requirements. The Dodd-Frank Act originally mandated certain enhanced prudential standards for bank holding companies with greater than \$50 billion in total consolidated assets as well as company-run stress tests for firms with greater than \$10 billion in assets.
- In addition, the Economic Growth Act increased the threshold for requiring a dedicated board risk committee from \$10 billion in total consolidated assets (established under the Dodd-Frank Act) to \$50 billion in total consolidated assets.
- The Economic Growth Act amends the Volcker Rule by narrowing the definition of "banking entity" and revising the statutory provisions related to the naming of covered funds.

- The Economic Growth Act provides that a depository institution must only assign a heightened risk weight to High Volatility Commercial Real Estate exposures as defined in the Economic Growth Act.
- The Economic Growth Act also provides an exemption to the appraisal requirements for certain transactions with values of less than \$400,000 involving real property or an interest in real property that is located in a rural area, as defined in the Act.

Most of the changes required by the Economic Growth Act applicable to bank holding companies with less than \$100 billion in assets were effective upon adoption or have been effectively implemented by interim rules and regulatory policy statements. Furthermore, the Economic Growth Act directs the Federal Reserve to further tailor its supervision and regulation of large bank holding companies with more than \$100 billion in assets.

The federal banking agencies indicated through interagency guidance that the capital planning and risk management practices of institutions with total assets less than \$100 billion would continue to be reviewed through the regular supervisory process, which may offset the impact of the relief from stress testing and risk management requirements provided by the Economic Growth Act.

Heartland

General

Heartland, as the sole shareholder of Dubuque Bank and Trust Company, New Mexico Bank & Trust, Rocky Mountain Bank, Wisconsin Bank & Trust, Illinois Bank & Trust, Arizona Bank & Trust, Citywide Banks, Minnesota Bank & Trust, Morrill & Janes Bank and Trust Company, Premier Valley Bank and First Bank & Trust, is a bank holding company. As a bank holding company, Heartland is registered with, and is subject to regulation, supervision and examination by, the Federal Reserve under the BHCA. In accordance with Federal Reserve policy, Heartland is expected to act as a source of financial and managerial strength to the Banks and to commit resources to support the Banks in circumstances where Heartland might not otherwise do so. In addition, under the Dodd-Frank Act, the FDIC has backup enforcement authority over a depository institution holding company, such as Heartland, if the conduct or threatened conduct of the holding company poses a risk to the Deposit Insurance Fund, although such authority may not be used if the holding company is in sound condition and does not pose a foreseeable and material risk to the insurance fund.

Under the BHCA, Heartland is subject to periodic examination by the Federal Reserve. Supervision and examinations are confidential, and the outcomes of these actions will not be made public. Heartland is also required to file with the Federal Reserve periodic reports of Heartland's operations and such additional information regarding Heartland and its subsidiaries as the Federal Reserve may require.

Acquisitions, Activities and Change in Control

The primary purpose of a bank holding company is to control and manage banks. The BHCA generally requires the prior approval of the Federal Reserve for any merger involving a bank holding company or any acquisition by a bank holding company. Subject to certain conditions (including certain deposit concentration limits established by the BHCA), the Federal Reserve may allow a bank holding company to acquire banks located in any state of the United States. In approving interstate acquisitions, the Federal Reserve is required to give effect to applicable state law limitations on the aggregate amount of deposits that may be held by the acquiring bank holding company and its insured depository institution affiliates in the state in which the target bank is located (provided that those limits do not discriminate against out-of-state depository institutions or their holding companies).

The BHCA generally prohibits Heartland from acquiring direct or indirect ownership or control of more than 5% of the voting shares of any company that is not a bank and from engaging in any business other than that of banking, managing and controlling banks, or furnishing services to banks and their subsidiaries. This general prohibition is subject to a number of exceptions. The principal exception allows bank holding companies to engage in, and to own shares of companies engaged in, certain businesses found by the Federal Reserve to be "so closely related to banking ... as to be a proper incident thereto." This authority permits bank holding companies, such as Heartland, to engage in a variety of banking-related businesses, including consumer finance, equipment leasing, mortgage banking, brokerage and the operation of a computer service bureau (which may engage in software development). Under the Dodd-Frank Act, however, any non-bank subsidiary would be subject to regulation no less stringent than the regulation applicable to the lead bank of the bank holding company. The BHCA generally does not place territorial restrictions on the domestic activities of non-bank subsidiaries of bank holding companies.

Additionally, bank holding companies that meet certain eligibility requirements prescribed by the BHCA may elect to operate as financial holding companies which may engage in, or own shares in companies engaged in, a wider range of nonbanking activities. As of the date of this Annual Report on Form 10-K, Heartland has not applied for approval to operate as a financial holding company.

Federal law also prohibits any person or persons acting in concert from acquiring "control" of an FDIC-insured institution or its holding company without prior notice to the appropriate federal bank regulator or any other company from acquiring "control" without Federal Reserve approval to become a bank holding company. "Control" is conclusively presumed to exist upon the acquisition of 25% or more of the outstanding voting securities of a bank or bank holding company, but may exist at 10% ownership levels for public companies, such as Heartland, and under certain other circumstances. Each of the Banks is generally subject to similar restrictions on changes in control under the law of the state granting its charter.

Capital Requirements

Bank holding companies are required to maintain minimum levels of capital in accordance with Federal Reserve capital adequacy guidelines, separate from and in addition to the capital requirements applicable to subsidiary financial institutions. These quantitative calculations are minimums, and the Federal Reserve, FDIC and applicable state banking regulators may determine that a banking organization, based on its size, complexity or risk profile, must maintain a higher level of capital in order to operate in a safe and sound manner. In addition, if a bank holding company is not well-capitalized, it will have difficulty engaging in acquisition transactions, and, if its capital levels fall below the minimum required levels, a bank holding company, among other things, may be denied approval to acquire or establish additional banks or non-bank businesses.

In general, the regulations of the Federal Reserve and the FDIC as the primary regulator of state banks, separate capital into two components, Tier 1 or "Core" capital and Tier 2 or "Supplementary" capital, and test these capital components based on their ratio to assets and to "risk weighted assets." Beginning January 1, 2015, when the third installment of the Basel Accords ("Basel III") regulatory capital reforms became applicable to Heartland, a third category of capital, "Common Equity Tier 1 capital," has been added. It is tested against risk weighted assets. Tier 1 capital generally consists of (a) common stockholders' equity, qualifying noncumulative preferred stock, and to the extent they do not exceed 25% of total Tier 1 capital, qualifying cumulative perpetual preferred stock and trust preferred securities, and (b) among other things, goodwill and specified intangible assets, credit enhancing strips and investments in unconsolidated subsidiaries. Tier 2 capital includes, to the extent not in excess of Tier 1 capital, the allowance for loan losses, other qualifying perpetual preferred stock, certain hybrid capital instruments and qualifying term subordinated debt. Risk weighted assets include the sum of specific assets of an institution multiplied by risk weightings for each asset class.

Until the implementation of the Basel III requirements, the Federal Reserve's capital guidelines applicable to bank holding companies, like the regulations applicable to subsidiary banks, required holding companies with less than \$10 billion of assets to comply with three capital ratios: (i) a leverage requirement consisting of a minimum ratio of Tier 1 capital to total assets (the "Leverage Ratio") of 3.0% for the most highly-rated banks with a minimum requirement of at least 4.0% for all others; (ii) a risk-based capital requirement consisting of a minimum ratio of Tier 1 capital to total risk-weighted assets (the "Tier1 Capital Ratio") of 4.0% and (iii) a risk-based capital requirement consisting of a minimum ratio of total capital to total risk-weighted assets (the "Total Capital Ratio") of 8.0%. The Basel III regulations, which became effective for Heartland and the Banks on January 1, 2015, (1) increased the minimum Leverage Ratio to 4.0% for all banks, (2) increased the Tier 1 Capital Ratio to 6.0% on January 1, 2015 and increased the Tier 1 Capital Ratio to 8.5% on January 1, 2019, and (3) created a new requirement to maintain a ratio of Common Equity Tier 1 capital ("Common Equity Tier 1 Capital Ratio") to risk-weighted assets of 4.5% as of January 1, 2015, which gradually increased to 7.0% on January 1, 2019. The Basel III Rules require inclusion in Common Equity Tier 1 Capital of the effects of other comprehensive income adjustments, such as gains and losses on securities held to maturity, that are currently excluded from the definition of Tier1 capital, but allow institutions, such as Heartland, to make a one-time election not to include those effects. Heartland and its banks elected not to include the effects of other comprehensive income in Common Equity Tier 1 Capital. Further, under the Basel III rules, if an institution grows beyond \$15 billion in assets and makes an acquisition, its ability to include trust preferred securities in Tier 1 capital is phased out. However, the trust preferred securities issued by Heartland, as a holding company with less than \$15 billion in assets, are grandfathered as Tier 1 capital by the Dodd-Frank Act, until Heartland grows beyond \$15 billion in assets and makes an acquisition.

Additional requirements may be imposed in the future. The Basel Committee has recently finalized a package of revisions to the Basel III framework, unofficially known as Basel IV. The changes are meant to improve the calculation of risk-weighted assets and the comparability of capital ratios. Federal banking regulators are expected to undertake one or more rulemakings in future years to implement these revisions in the United States. The ultimate impact on our capital and liquidity will depend on the final United States rulemakings and implementation process thereafter.

Further, federal law and regulations provide various incentives for financial institutions to maintain regulatory capital at levels in excess of minimum regulatory requirements. For example, a financial institution generally must be "well-capitalized" to engage in acquisitions, and well-capitalized institutions may qualify for exemptions from prior notice or application requirements otherwise applicable to certain types of activities and may qualify for expedited processing of other required notices or applications. Additionally, one of the criteria that determines a bank holding company's eligibility to operate as a financial holding company is a requirement that both the holding company and all of its financial institution subsidiaries be "well-capitalized." Under current

federal regulations, in order to be "well-capitalized" a financial institution must maintain a Total Capital Ratio of 10.0% or greater, a Tier 1 Capital Ratio of 6.0% or greater and a Leverage Ratio of 5.0% or greater. In order to be "well-capitalized" under the new Basel III Rules, a bank or bank holding company will be required to have a Total Capital Ratio of 10.0% or greater, a Tier 1 Capital Ratio of 8.0% or greater, a Leverage Ratio of 5.0% or greater, and a Common Equity Tier 1 Capital Ratio of 6.5% or greater. As of December 31, 2018, Heartland had regulatory capital in excess of the Federal Reserve requirements for well-capitalized bank holding companies.

In addition, in December 2018, the United States federal banking agencies finalized standards that permit bank holding companies and banks to phase-in, for regulatory capital purposes, the day-one impact of the new current expected credit loss accounting standard on retained earnings over a period of three years. For further discussion of the new current expected credit loss accounting standard, see Note 1 of the consolidated financial statements.

Stress Testing

Pursuant to the Dodd-Frank Act and regulations published by the Federal Reserve, institutions with average total consolidated assets greater than \$10 billion were required to conduct an annual "stress test" of capital and consolidated earnings and losses under a base case and two severely adverse stress scenarios provided by bank regulatory agencies. The Economic Growth Act raised the asset threshold for stress testing from \$10 billion to \$100 billion for bank holding companies. As a result Heartland, as well as its Banks, are no longer subject to stress test regulations or any requirement to publish the results of the stress testing. Heartland will continue to perform certain stress tests internally and incorporate the economic models and information developed through its stress testing program into its risk management and business planning activities.

Dividend Payments

Heartland's ability to pay dividends to its stockholders may be affected by both general corporate law consideration, and policies of the Federal Reserve applicable to bank holding companies. As a Delaware corporation, Heartland is subject to the limitations of the Delaware General Corporation Law (the "DGCL"), which allows Heartland to pay dividends only out of its surplus (as defined and computed in accordance with the provisions of the DGCL) or, if Heartland has no such surplus, out of its net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year. In addition, policies of the Federal Reserve suggest that a bank holding company should not pay cash dividends unless its net income available to common stockholders over the past year has been sufficient to fully fund the dividends and the prospective rate of earnings retention appears consistent with its capital needs, asset quality, and overall financial condition. The Federal Reserve also possesses enforcement powers over bank holding companies and their non-bank subsidiaries to prevent or remedy actions that represent unsafe or unsound practices or violations of applicable statutes and regulations. Among these powers is the ability to proscribe the payment of dividends by banks and bank holding companies.

The Banks

General

All of the Banks are state chartered, non-member banks, which means that they are all formed under state law and are not members of the Federal Reserve System. As a result, each Bank is subject to direct regulation by the banking authorities in the state in which it was chartered, as well as by the FDIC as its primary federal regulator.

Dubuque Bank and Trust Company is an Iowa-chartered bank. As an Iowa-chartered bank, Dubuque Bank and Trust Company is subject to the examination, supervision, reporting and enforcement requirements of the Iowa Superintendent, the chartering authority for Iowa banks.

Illinois Bank & Trust is an Illinois-chartered bank. As an Illinois-chartered bank, Illinois Bank & Trust is subject to the examination, supervision, reporting and enforcement requirements of the Illinois DFPR, the chartering authority for Illinois banks.

Wisconsin Bank & Trust is a Wisconsin-chartered bank. As a Wisconsin-chartered bank, Wisconsin Bank & Trust is subject to the examination, supervision, reporting and enforcement requirements of the Wisconsin DFI, the chartering authority for Wisconsin banks.

New Mexico Bank & Trust is a New Mexico-chartered bank. As a New Mexico-chartered bank, New Mexico Bank & Trust is subject to the examination, supervision, reporting and enforcement requirements of the New Mexico FID, the chartering authority for New Mexico banks.

Arizona Bank & Trust is an Arizona-chartered bank. As an Arizona-chartered bank, Arizona Bank & Trust is subject to the examination, supervision, reporting and enforcement requirements of the Arizona Department, the chartering authority for Arizona banks.

Rocky Mountain Bank is a Montana-chartered bank. As a Montana-chartered bank, Rocky Mountain Bank is subject to the examination, supervision, reporting and enforcement requirements of the Montana Division, the chartering authority for Montana banks.

Citywide Banks is a Colorado-chartered bank. As a Colorado-chartered bank, Citywide Banks is subject to the examination, supervision, reporting and enforcement requirements of the Colorado Division, the chartering authority for Colorado banks.

Minnesota Bank & Trust is a Minnesota-chartered bank. As a Minnesota-chartered bank, Minnesota Bank & Trust is subject to the examination, supervision, reporting and enforcement requirements of the Minnesota Division, the chartering authority for Minnesota banks.

Morrill & Janes Bank and Trust Company is a Kansas-chartered bank. As a Kansas-chartered bank, Morrill & Janes Bank and Trust Company is subject to the examination, supervision, reporting and enforcement requirements of the Kansas Division, the chartering authority for Kansas banks.

Premier Valley Bank is a California-chartered bank. As a California-chartered bank, Premier Valley Bank is subject to the examination, supervision, reporting and enforcement requirements of the California Division, the chartering authority for California banks.

First Bank & Trust is a Texas-chartered bank. As a Texas-chartered bank, First Bank & Trust is subject to the examination, supervision, reporting and enforcement requirements of the Texas Division, the chartering authority for Texas banks.

Deposit Insurance

The FDIC is an independent federal agency that insures the deposits, up to \$250,000 per depositor, of federally insured banks and savings institutions and safeguards the safety and soundness of the commercial banking and thrift industries.

As FDIC-insured institutions, the Banks are required to pay deposit insurance premium assessments to the FDIC using a risk-based assessment system based upon average total consolidated assets minus tangible equity of the insured bank.

The Dodd-Frank Act directed that the minimum deposit insurance fund reserve ratio would increase from 1.15% to 1.35% by September 30, 2020, and that the cost of the increase be borne by depository institutions with assets of \$10 billion or more. In addition, all institutions with deposits insured by the FDIC were required to pay assessments to fund interest payments on bonds issued by the Financing Corporation, an agency of the federal government established to recapitalize the predecessor to the Savings Association Insurance Fund. Since December 31, 2013, the assessment rate has been 0.01450% of total deposits. This requirement was met effective September 30, 2018, as a result of the FDIC's reserve ratio exceeding 1.35%.

The Dodd-Frank Act also provides the FDIC with discretion to determine whether to pay rebates to insured depository institutions when its deposit insurance reserves exceed certain thresholds. Previously, the FDIC was required to give rebates to depository institutions equal to the excess once the reserve ratio exceeded 1.50%, and was required to rebate 50% of the excess over 1.35% but not more than 1.50% of insured deposits. In July 2016, the FDIC implemented rules for the reserve ratio requirements of the Dodd-Frank Act. Under the rules, banks with assets of less than \$10 billion will receive assessment credits for the portion of their assessments that contribute to the increase in the reserve ratio from 1.15% to 1.35%. The FDIC will apply the credits each quarter that the bank's reserve ratio is at or above 1.38% to offset the regular deposit insurance assessments.

Supervisory Assessments

Each of the Banks is required to pay supervisory assessments to its respective state banking regulator to fund the operations of that agency. In general, the amount of the assessment is calculated on the basis of each institution's total assets. During 2018, the Banks paid supervisory assessments totaling \$1.2 million.

Capital Requirements

Like Heartland, under current federal regulations, each Bank is required to maintain the minimum Leverage Ratio, Tier 1 Capital Ratio and Total Capital Ratio described under the caption "Heartland-Capital Requirements" above, and effective January 1, 2015, was required to comply with the enhanced capital requirements under the Basel III regulations, as well as the new Common Equity Tier 1 Capital Ratio. The capital requirements described above are minimum requirements and higher capital levels may be required if warranted by the particular circumstances or risk profiles of individual institutions. For example, federal regulators regularly require new institutions to maintain higher capital ratios during the first few years after their formation, and may require additional capital to take adequate account of, among other things, interest rate risk or the risks posed by concentrations of credit, nontraditional activities or securities trading activities.

Federal law also provides the federal banking regulators with broad power to take prompt corrective action to resolve the problems of undercapitalized institutions. The extent of the regulators' powers depends on whether the institution in question is "adequately capitalized," "undercapitalized," "significantly undercapitalized" or "critically undercapitalized," in each case as defined by regulation. Depending upon the capital category to which an institution is assigned, the regulators' corrective powers include: (i) requiring the institution to submit a capital restoration plan; (ii) limiting the institution's asset growth and restricting its activities; (iii) requiring the institution to issue additional capital stock (including additional voting stock) or to be acquired; (iv) restricting transactions between the institution and its affiliates; (v) restricting the interest rate the institution may pay on deposits; (vi) ordering a new election of directors of the institution; (vii) requiring that senior executive officers or directors be dismissed; (viii) prohibiting the institution from accepting deposits from correspondent banks; (ix) requiring the institution to divest certain subsidiaries; (x) prohibiting the payment of principal or interest on subordinated debt; and (xi) ultimately, appointing a receiver for the institution.

As of December 31, 2018: (i) none of the Banks was subject to a directive from its primary federal regulator to increase its capital; (ii) each of the Banks exceeded its minimum regulatory capital requirements under applicable capital adequacy guidelines; (iii) each of the Banks was "well-capitalized," as defined by applicable regulations; and (iv) none of the Banks were subject to a directive to maintain capital higher than the regulatory capital requirements, as discussed below under the caption "Safety and Soundness Standards."

Liability of Commonly Controlled Institutions

Under federal law, institutions insured by the FDIC may be liable for any loss incurred by, or reasonably expected to be incurred by, the FDIC in connection with the default of commonly controlled FDIC-insured depository institutions or any assistance provided by the FDIC to commonly controlled FDIC-insured depository institutions in danger of default. Because Heartland controls each of the Banks, the Banks are commonly controlled for purposes of these provisions of federal law.

Anti-Money Laundering

The Bank Secrecy Act, the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (the "PATRIOT Act") and other related federal laws and regulations require financial institutions, including the Banks, to implement policies and procedures relating to anti-money laundering, customer identification and due diligence requirements and the reporting of certain types of transactions and suspicious activity. In May 2016, the Financial Crimes Enforcement Network published a final rule that requires financial institutions to develop policies, procedures and practices to prevent and deter money laundering. The program must be a written board-approved program that is reasonably designed to identify and verify the identities of beneficial owners of legal entity customers at the time a new account is opened. The program must, at a minimum (1) provide for a system of internal controls to assure ongoing compliance; (2) designate a compliance officer; (3) establish an ongoing employee training program; and (4) implement an independent audit function to test programs. Financial institutions were required to comply with the new rule beginning May 11, 2018. This rule has increased compliance costs for the Banks.

Dividend Payments

The primary source of funds for Heartland is dividends from the Banks. In general, the Banks may only pay dividends either out of their historical net income after any required transfers to surplus or reserves have been made or out of their retained earnings.

The payment of dividends by any financial institution is affected by the requirement to maintain adequate capital pursuant to applicable capital adequacy guidelines and regulations, and a financial institution generally is prohibited from paying any dividends if, following payment thereof, the institution would be undercapitalized. As described above, each of the Banks exceeded its minimum capital requirements under applicable guidelines as of December 31, 2018.

As of December 31, 2018, approximately \$311.3 million was available in retained earnings at the Banks for payment of dividends to Heartland under the regulatory capital requirements to remain well-capitalized. Notwithstanding the availability of funds for dividends, however, the FDIC and state regulators may reduce or prohibit the payment of dividends by the Banks.

Transactions with Affiliates

The Federal Reserve regulates transactions between Heartland and its subsidiaries. Generally, the Federal Reserve Act and Regulation W, as amended by the Dodd-Frank Act, limit lending and other "covered transactions" between the Banks and their affiliates. The aggregate amount of covered transactions a Bank may enter into with an affiliate may not exceed 10% of the capital stock and surplus of the Bank. The aggregate amount of covered transactions with all affiliates may not exceed 20% of the capital stock and surplus of the Bank.

Covered transactions with affiliates are also subject to collateralization requirements and must be conducted on arm's length terms. Covered transactions include (a) a loan or extension of credit by a Bank, including derivative contracts, (b) a purchase of securities issued to a Bank, (c) a purchase of assets by a Bank unless otherwise exempted by the Federal Reserve, (d) acceptance of securities issued by an affiliate to the Bank as collateral for a loan, and (e) the issuance of a guarantee, acceptance or letter of credit by a Bank on behalf of an affiliate.

Insider Transactions

The Banks are subject to certain restrictions imposed by federal law on extensions of credit to Heartland and its subsidiaries, on investments in the stock or other securities of Heartland and its subsidiaries and the acceptance of the stock or other securities of Heartland or its subsidiaries as collateral for loans made by the Banks. Certain limitations and reporting requirements are also placed on extensions of credit by each of the Banks to its directors and officers, to directors and officers of Heartland and its subsidiaries, to principal stockholders of Heartland and to "related interests" of such directors, officers and principal stockholders. In addition, federal law and regulations may affect the terms upon which any person who is a director or officer of Heartland or any of its subsidiaries or a principal stockholder of Heartland may obtain credit from banks with which the Banks maintain correspondent relationships.

Safety and Soundness Standards

The federal banking agencies have adopted guidelines that establish operational and managerial standards to promote the safety and soundness of federally insured depository institutions. The guidelines set forth standards for internal controls, information systems, internal audit systems, loan documentation, credit underwriting, interest rate exposure, asset growth, compensation, fees and benefits, vendor and model risk management, asset quality and earnings. In general, the safety and soundness guidelines prescribe the goals to be achieved in each area, and each institution is responsible for establishing its own procedures to achieve those goals. If an institution fails to comply with any of the standards set forth in the guidelines, the institution's primary federal regulator may require the institution to submit a plan for achieving and maintaining compliance. If an institution fails to submit an acceptable compliance plan, or fails in any material respect to implement a compliance plan that has been accepted by its primary federal regulator, the regulator is required to issue an order directing the institution to cure the deficiency. Until the deficiency cited in the regulator's order is cured, the regulator may restrict the institution's rate of growth, require the institution to increase its capital, restrict the rates the institution pays on deposits or require the institution to take any action the regulator deems appropriate under the circumstances. Noncompliance with the standards established by the safety and soundness guidelines may also constitute grounds for other enforcement action by the federal banking regulators, including cease and desist orders and civil money penalty assessments.

In June 2016, the Federal Reserve Board issued supervisory guidance for assessing risk management for supervised institutions with total consolidated assets of less than \$50 billion ("SR 16-11"). This guidance provides four key areas to evaluate in assessing a risk management system: board and senior management oversight of risk management; policies, procedures and limits; risk monitoring and management information systems and internal controls. In August 2017, the Federal Reserve Board issued proposed guidance addressing supervisory expectations of boards of directors that includes a proposal to further revise and align the supervisory expectations of boards of directors in areas beyond risk management with the board expectations set forth in SR 16-11.

Branching Authority

Each of the Banks has the authority, pursuant to the laws under which it is chartered, to establish branches anywhere in the state in which its main office is located, subject to the receipt of all required regulatory approvals.

Federal law permits state and national banks to merge with banks in other states subject to: (i) regulatory approval; (ii) federal and state deposit concentration limits; and (iii) state law limitations requiring the merging bank to have been in existence for a minimum period of time (not to exceed five years) prior to the merger.

State Bank Investments and Activities

Each of the Banks generally is permitted to make investments and engage in activities directly or through subsidiaries as authorized by the laws of the state under which it is chartered. However, under federal law and FDIC regulations, FDIC-insured state banks are prohibited, subject to certain exceptions, from making or retaining equity investments of a type, or in an amount, that are not permissible for a national bank. Federal law and FDIC regulations also prohibit FDIC-insured state banks and their subsidiaries, subject to certain exceptions, from engaging as principal in any activity that is not permitted for a national bank, unless the bank meets, and continues to meet, its minimum regulatory capital requirements and the FDIC determines the activity would not pose a significant risk to the deposit insurance fund of which the bank is a member.

Incentive Compensation Policies and Restrictions

In July 2010, the federal banking agencies issued guidance that applies to all banking organizations supervised by the agencies. Pursuant to the guidance, to be consistent with safety and soundness principles, Heartland's incentive compensation arrangements

should: (1) appropriately balance risk and financial reward; (2) be compatible with effective controls and risk management; and (3) be supported by strong corporate governance, including active and effective oversight by Heartland's board of directors.

In addition, in March 2011, the federal banking agencies, along with the Federal Housing Finance Agency, and the Securities and Exchange Commission, released a proposed rule intended to ensure that regulated financial institutions design their incentive compensation arrangements to account for risk. In May 2016, financial regulators proposed a rule replacing the 2011 proposed rule. While the proposed 2011 proposed rule was principles-based, the new proposed rule is prescriptive in nature and is intended to prohibit incentive-based compensation arrangements that could encourage inappropriate risk taking by providing excessive compensation or could lead to material financial loss. The new proposed rule would require financial institutions to consider compensation arrangements for "senior executive officers" and "significant risk takers" against several factors, and would require that such arrangements contain both financial and non-financial measures of performance. Until a final rule is issued, it is not clear whether and how this rule will ultimately impact the Banks.

The Volcker Rule and Proprietary Trading

In December 2013, federal banking regulators jointly issued a final rule to implement Section 13 of the BHCA (adopted as part 619 of the Dodd-Frank Act), which prohibits banking entities (including Heartland and the Banks) from engaging in proprietary trading of securities, derivatives and certain other financial instruments for the entity's own account, and prohibits certain interests in, or relationships with, a hedge fund or private equity fund. It also imposes rules regarding compliance programs. Commonly referred to as the "Volcker Rule," the final rule as originally adopted was effective on April 1, 2014 and would have required banking entities to conform their activities to its requirements by July 21, 2015. However, based upon announcements of the Federal Reserve Board in December 2014, certain key elements that require sale of investment in private equity and hedge funds were not effective until July 21, 2017. Heartland did not engage in any significant amount of proprietary trading, as defined in the Volcker Rule, and the impact of the Volcker Rule on Heartland's business activities and investment portfolio was minimal. Heartland has reviewed its investment portfolio to determine if any investments meet the Volcker Rule's definition of covered funds. Based on the review, Heartland determined that the impact related to investments considered to be covered funds did not have a significant effect on its financial condition or results of operations.

In May 2018, the Federal Reserve requested comment on proposals to simplify and tailor the compliance requirements of the Volcker Rule. The Economic Growth Act has already changed some of these requirements, as described in the section of this Annual Report on Form 10-K entitled "Supervision and Regulation." Management will continue to evaluate the impact of the Volcker Rule as regulations implementing these changes are finalized.

Federal Reserve Liquidity Regulations

Federal Reserve regulations, as presently in effect, require depository institutions to maintain non-interest earning reserves against their transaction accounts (primarily NOW and regular checking accounts), as follows: (i) for transaction accounts aggregating \$10.7 million or less, there is no reserve requirement; (ii) for transaction accounts over \$10.7 million and up to \$55.2 million, the reserve requirement is 3% of total transaction accounts; and (iii) for transaction accounts aggregating in excess of \$55.2 million, the reserve requirement is \$1.3 million plus 10% of the aggregate amount of total transaction accounts in excess of \$55.2 million. These reserve requirements are subject to annual adjustment by the Federal Reserve. The Banks are in compliance with the foregoing requirements.

Community Reinvestment Act Requirements

The Community Reinvestment Act imposes a continuing and affirmative obligation on each of the Banks to help meet the credit needs of their respective communities, including low- and moderate-income neighborhoods, in a safe and sound manner. The FDIC and the respective state regulators regularly assess the record of each Bank in meeting the credit needs of its community. Applications for additional acquisitions would be subject to evaluation of the effectiveness of the Banks' in meeting their Community Reinvestment Act requirements.

Consumer Protection

The Consumer Finance Protection Bureau ("CFPB") has undertaken numerous rule-making and other initiatives, including issuing informal guidance and taking enforcement actions against certain financial institutions. The CFPB's rulemaking, examination and enforcement authority has affected and will continue to significantly affect financial institutions involved in the provision of consumer financial products and services.

The CFPB has also been publishing complaints submitted by consumers regarding consumer financial products and services in a publicly-accessible online portal. In June 2015, the CFPB also began publishing complaint narratives from consumers that opted to have their narratives made public. The publication of complaint narratives could affect the Banks in the following ways: (i) complaint data might be used by the CFPB to make decisions regarding regulatory, enforcement or examination issues; and (ii) the publication of such narratives may have a negative effect on the reputation of those institutions that are the subject of complaints.

Mortgage Lending

Mortgage loans held at each of the Banks, which were made prior to the outsourcing of Heartland's legacy mortgage lending business, and mortgage loans originated by PrimeWest Mortgage Corporation are subject to a number of laws and rules affecting residential mortgages, including the Home Mortgage Disclosure Act ("HMDA") and Regulation C and the Real Estate Settlement Procedures Act ("RESPA") and Regulation X. In recent years, the CFPB and other federal agencies have proposed and finalized a number of rules affecting residential mortgages. These rules implement the Dodd-Frank Act amendments to the Equal Credit Opportunity Act, Truth in Lending Act ("TILA") and RESPA. The final rules, among other things, impose requirements regarding procedures to ensure compliance with "ability to repay" requirements, policies and procedures for servicing mortgages, and additional rules and restrictions regarding mortgage loan originator compensation and qualification and registration requirements for individual loan originator employees. These rules also impose new or revised disclosure requirements, including a new integrated mortgage origination disclosure that combines disclosures currently required under TILA and RESPA.

Regulation C requires lenders to report certain information regarding home loans. In October 2015, the CFPB issued a final rule amending Regulation C which, among other things, revises tests for determining what financial institutions and credit transactions are covered under HMDA and imposes reporting requirements for new data points identified in the Dodd-Frank Act or identified by the CFPB as necessary to carry out the purposes of HMDA. The final rule requires more detailed information from lenders and requires lenders to deliver certain information about mortgage loan underwriting and pricing.

In October 2016, federal regulators issued a proposed rule to implement provisions of the Briggert-Waters Flood Insurance Reform Act. Federal law generally requires financial institutions to impose a mandatory purchase requirement for flood insurance for loans secured by certain real property located in areas with special flood hazards. The proposed rule outlines provisions for identifying when private flood insurance policies must be accepted and criteria to apply in determining whether certain types of coverage qualify as "flood insurance" for federal flood insurance law purposes. Until a final rule is issued, it is not clear whether and how this rule will ultimately impact the Banks.

Ability-to-Repay and Qualified Mortgage Rule

Effective on January 10, 2014, Regulation Z was amended to require mortgage lenders, such as PrimeWest Mortgage Corporation, to make a reasonable and good faith determination based on verified and documented information that a consumer applying for a mortgage loan has a reasonable ability to repay the loan according to its terms. Mortgage lenders are required to determine consumers' ability to repay in one of two ways. The first alternative requires the mortgage lender to consider the following eight underwriting factors when making the credit decision: (1) current or reasonably expected income or assets; (2) current employment status; (3) the monthly payment on the covered transaction; (4) the monthly payment on any simultaneous loan; (5) the monthly payment for mortgage-related obligations; (6) current debt obligations, alimony and child support; (7) the monthly debt-to-income ratio or residual income; and (8) credit history. Alternatively, the mortgage lender can originate "qualified mortgages," which are entitled to a presumption that the creditor making the loan satisfied the ability-to-repay requirements. In general, a "qualified mortgage" is a mortgage loan without negative amortization, interest-only payments, balloon payments or terms exceeding 30 years. In addition, to be a qualified mortgage, the points and fees paid by a consumer cannot exceed 3% of the total loan amount. Qualified mortgages that are "higher-priced" (e.g., subprime loans) have a rebuttable presumption of compliance with the ability-to-repay rules, while qualified mortgages that are not "higher-priced" (e.g., prime loans) are given a safe harbor of compliance. The Banks and PrimeWest Mortgage Corporation primarily originate compliant qualified mortgages.

Risk Retention and Qualified Residential Mortgage Rule

In October 2014, the FDIC, the Federal Reserve and four other federal regulatory agencies issued a final rule to implement amendments to the Securities Exchange Act of 1934, as amended, that impose risk retention requirements on asset-backed securities. The final rule generally requires a sponsor of an asset-backed securitization to retain not less than 5% of the credit risk of the underlying asset. Certain securitizations that are comprised of "qualified residential mortgages" are exempt from the risk retention requirements, with qualified residential mortgage defined to be consistent with the definition of qualified mortgages. The final rule for residential securitizations was effective December 24, 2015, and rules for all other categories of covered asset-based securitizations were effective December 24, 2016. The operations of the Banks were not materially impacted by the final rule particularly since the Banks primarily originate qualified residential mortgages.

Data Security

In January 2015, new legislative proposals and administration efforts regarding privacy and cybersecurity were announced which, among other things, propose a national data breach notification standard. Legislation regarding data security with respect to security breach notifications and sharing cybersecurity threat information has also been proposed. In 2015, the Federal Financial Institutions Examination Council ("FFIEC") developed the Cybersecurity Assessment Tool to help institutions identify their risks and determine their preparedness for cybersecurity threats.

In September 2016, the FFIEC issued a revised Information Security booklet. The revised booklet includes updated guidelines for evaluating the adequacy of information security programs (including effective threat identification, assessment and monitoring, and incident identification assessment and response), assurance reports and testing of information security programs.

New laws or guidance with respect to data security could impact card issuers and increase compliance costs related to credit card or debit card products. However, it is currently uncertain what (if any) impact these developments will have on the Banks.

Durbin Amendment

The Dodd-Frank Act included provisions (known as the "Durbin Amendment"), which restrict interchange fees to those which are "reasonable and proportionate" for certain debit card issuers and limits the ability of networks and issuers to restrict debit card transaction routing. The Federal Reserve issued final rules implementing the Durbin Amendment on June 29, 2011. In the final rules, interchange fees for debit card transactions were capped at \$0.21 plus five basis points in order to be eligible for a safe harbor such that the fee is conclusively determined to be reasonable and proportionate. The interchange fee restrictions contained in the Durbin Amendment, and the rules promulgated thereunder, only apply to debit card issuers with \$10 billion or more in total consolidated assets at year-end. Because Heartland's assets exceeded \$10 billion at December 31, 2018, it will be required to comply with the Durbin Amendment effective July 1, 2019. Based on estimated calculations using 2018 debit card volume, the impact of the Durbin Amendment would be approximately \$6.0 million on an annualized basis.

ITEM 1A. RISK FACTORS

In addition to the other information in this Annual Report on Form 10-K, stockholders or prospective investors should carefully consider the following risk factors that may adversely affect our business, financial results or stock price. Additional risks that we currently do not know about or currently view as immaterial may also impair our business or adversely impact our financial results or stock price.

Economic and Market Conditions Risk

Our business and financial results are significantly affected by general business and economic conditions.

Our business activities and earnings are affected by general business conditions in the United States and particularly in the states in which our Banks operate. Factors such as the volatility of interest rates, home prices and real estate values, unemployment, credit defaults, increased bankruptcies, decreased consumer spending and household income, volatility in the securities markets, and the cost and availability of capital have negatively impacted our business in the past and may adversely impact us in the future. Economic deterioration that affects household and/or corporate incomes could result in renewed credit deterioration and reduced demand for credit or fee-based products and services, negatively impacting our performance. In addition, changes in securities market conditions and monetary fluctuations could adversely affect the availability and terms of funding necessary to meet our liquidity needs.

Our business is concentrated in and dependent upon the continued growth and welfare of the various markets that we serve.

We operate in markets in Iowa, Illinois, Wisconsin, Arizona, New Mexico, Montana, Colorado, Minnesota, Kansas, Missouri, Texas and California, and our financial condition, results of operations and cash flows are subject to changes in the economic conditions in those markets. Our success depends upon the business activity, population, income levels, deposits and real estate activity in those areas. Although our customers' business and financial interests may extend well beyond our market areas, adverse economic conditions that affect our specific market area could reduce our growth rate, affect the ability of our customers to repay their loans to us and generally affect our financial condition and results of operations.

Our business and performance is vulnerable to the impact of volatility in debt and equity markets.

As most of our assets and liabilities are financial in nature, our performance is sensitive to the performance of the financial markets. Turmoil and volatility in the financial markets can be a major contributory factor to overall weak economic conditions, including the impaired ability of borrowers and other counterparties to meet obligations to us. Financial market volatility may:

- Affect the value or liquidity of our on-balance sheet and off-balance sheet financial instruments.
- Affect the value of capitalized servicing assets.
- Affect our ability to access capital markets to raise funds. Inability to access capital markets if needed, at cost effective rates, could adversely affect our liquidity and results of operations.
- Affect the value of the assets that we manage or otherwise administer or service for others. Although we are not directly impacted by changes in the value of such assets, decreases in the value of those assets would affect related fee income and could result in decreased demand for our services.

Changes in interest rates and other conditions could negatively impact our results of operations.

As a result of the high percentage of our assets and liabilities that are interest-bearing, changes in interest rates, in the shape of the yield curve or in spreads between different market interest rates, can have a material effect on our financial performance. Our profitability is in part a function of the spread between the interest rates earned on investments and loans and the interest rates paid on deposits and other interest-bearing liabilities. Like most banking institutions, our net interest spread and margin will be affected by general economic conditions and other factors, including fiscal and monetary policies of the Federal Reserve that influence market interest rates, and our ability to respond to changes in such rates. The Federal Reserve began raising rates in late 2015 and 2016 and their benchmark rate and market rates continued to increase during 2017 and 2018, contributing to improvement in our net interest income as the increase in interest we receive on our assets exceeded the increase in interest we were required to pay our depositors. However there is substantial uncertainty regarding the extent to which interest rates may increase in 2019 and future periods and what the future effects of any such increases will be on our interest income and expense.

At any given time, our assets and liabilities may be affected differently by a given change in interest rates. Asset values, especially commercial real estate collateral, securities or other fixed rate earning assets, can decline significantly with relatively minor changes in interest rates. As a result, an increase or decrease in rates, the length of loan terms or the mix of adjustable and fixed rate loans in our portfolio could have a positive or negative effect on our net income, capital and liquidity. We measure interest rate risk under various rate scenarios using specific criteria and assumptions. A summary of this process, along with the results of our net interest income simulations, is presented under the caption "Quantitative and Qualitative Disclosures About Market Risk" included under Item 7A of Part II of this Annual Report on Form 10-K. Although we believe our current level of interest rate sensitivity is reasonable and effectively managed, significant fluctuations in interest rates may have an adverse effect on our business, financial condition and results of operations, and specifically, our net interest income. Also, our interest rate risk modeling techniques and assumptions may not fully predict or capture the impact of actual interest rate changes on our financial condition and results of operations.

We may be adversely impacted by the transition from the London Interbank Offered Rate ("LIBOR") as a reference rate.

We have derivative contracts, borrowings and other financial instruments with attributes that are either directly or indirectly dependent on the LIBOR. In 2017, the United Kingdom Financial Conduct Authority indicated in an announcement that the continuation of LIBOR on the current basis cannot and will not be guaranteed after 2021. United States regulatory authorities have voiced similar support for phasing out LIBOR. The impact of alternatives to LIBOR on the valuations, pricing and operation of our financial instruments is not yet known.

Future impacts of the Tax Cuts and Jobs Act on us and our customers are unknown at present, creating uncertainty and risk related to our customers' future demand for credit and our future results. Additionally, changes in the federal, state or local tax laws may negatively impact our financial performance.

The Tax Cuts and Jobs Act was signed into law in December 2017. Increased economic activity expected to result from the decrease in tax rates on businesses generally could spur additional economic activity that would encourage additional borrowing. At the same time, some customers may elect to use their additional cash flow from lower taxes to fund their existing levels of activity, decreasing borrowing needs. The potential limitation of the federal income tax deductibility of business interest expense for a significant number of our customers effectively increases the cost of borrowing and makes equity or hybrid funding relatively more attractive. This could have a long-term negative impact on business customer borrowing. We realized a significant increase in our after-tax net income available to stockholders in 2018 but there is no guarantee that future years' results will have the same benefit. Some or all of this benefit could be lost to the extent that the banks and financial services companies we compete with elect to lower interest rates and fees and we are forced to respond in order to remain competitive. Additionally, the tax benefits could be repealed as a result of future regulatory actions. There is no assurance that presently anticipated benefits of the Tax Cuts and Jobs Act will be realized in the future.

We are subject to changes in tax law that could increase our effective tax rates. These law changes may be retroactive to previous periods and as a result could negatively affect our current and future financial performance. The Tax Cuts and Jobs Act, the full impact of which is subject to further evaluation and analysis, is likely to have both positive and negative effects on our financial performance. We will continue to monitor the evolving impact of the Tax Cuts and Jobs Act, which may differ from the foregoing description, possibly materially, due to changes in interpretations or in assumptions that we have made, guidance or regulations that may be promulgated, and other actions that we may take as a result of this legislation. Similarly, our customers are likely to experience varying effects from both the individual and business tax provisions of the Tax Cuts and Jobs Act and such effects, whether positive or negative, may have a corresponding impact on our business and the economy as a whole.

Credit Risks

We could suffer material credit losses if we do not appropriately manage our credit risk.

There are many risks inherent in making any loan, including risks of dealing with individual borrowers, risks of nonpayment, risks resulting from uncertainties as to the future value of collateral and risks resulting from changes in economic and industry conditions. We attempt to minimize our credit risk through prudent loan application approval procedures, careful monitoring of the concentration of our loans within specific industries, periodic independent reviews of outstanding loans by our loan review department and appropriate training of our credit administration staff. However, changes in the economy can cause the assumptions that we made at the time of loan origination to change and can cause borrowers to be unable to make payments on their loans. In addition, significant changes in collateral values can cause us to be unable to collect the full value of loans we make. We cannot assure you that our loan approval and monitoring procedures will reduce these credit risks.

We depend on the accuracy and completeness of information about our customers and counterparties.

In deciding whether to extend credit or enter into other transactions, we may rely on information furnished by or on behalf of customers and counterparties, including financial statements, credit reports and other financial information. We may also rely on representations of those customers, counterparties or other third parties, such as independent auditors, regarding the accuracy and completeness of that information. Reliance on inaccurate or misleading financial statements, credit reports or other financial information could cause us to make uncollectible loans or enter into other unfavorable transactions, which could have a material adverse effect on our financial condition and results of operations.

Commercial loans, which involve greater complexities to underwrite and administer, make up a significant portion of our loan portfolio.

Heartland's commercial loans were \$5.73 billion (including \$3.71 billion of commercial real estate loans), or approximately 77%, of our total loan portfolio as of December 31, 2018. Our commercial loans, which tend to be larger and more complex credits than loans to individuals, are primarily made based on the identified cash flow of the borrower and secondarily on the underlying collateral provided by the borrower. Most often, this collateral consists of accounts receivable, inventory, machinery or real estate. In the case of loans secured by accounts receivable, the availability of funds for the repayment of these loans may be substantially dependent on the ability of the borrower to collect amounts due from its customers. The other types of collateral securing these loans may depreciate over time, may be difficult to appraise and may fluctuate in value based on the success of the customer's business and market conditions.

Our loan portfolio has a large concentration of commercial real estate loans, a segment that can be subject to volatile cash flows and collateral values.

Commercial real estate lending is a large portion of our commercial loan portfolio. These loans were \$3.71 billion, or approximately 65%, of our total commercial loan portfolio as of December 31, 2018. The market value of real estate can fluctuate significantly in a short period of time as a result of market conditions in the geographic area in which the real estate is located. Adverse developments affecting real estate values could negatively affect some of our commercial real estate loans, and other developments could increase the credit risk associated with our loan portfolio. Non-owner occupied commercial real estate loans typically are dependent, in large part, on sufficient income from the properties securing the loans to cover operating expenses and debt service. Lot and land development loans have a greater risk of default in a weaker economy because the source of repayment is reliant on the successful and timely sale of lots or land held for resale. Economic events or governmental regulations outside of the control of Heartland or the borrower could negatively impact the future cash flow and market values of the affected properties.

The construction, land acquisition and development loans that are part of our commercial real estate loans present project completion risks, as well as the risks applicable to other commercial real estate loans.

Our commercial real estate loan portfolio includes commercial construction loans, including land acquisition and development loans, which involve additional risks because funds are advanced based upon estimates of costs and the estimated value of the completed project. Because of the uncertainties inherent in estimating construction costs, as well as the market value of the completed project and the effects of governmental regulation on real property, it is difficult to evaluate accurately the total funds required to complete a project and the related loan-to-value ratio. As a result, commercial construction loans often involve the disbursement of substantial funds with repayment dependent, in part, on the success of the ultimate project and the ability of the borrower to sell or lease the property. If our appraisal of the value of the completed project proves to be overstated, we may have inadequate security for the repayment of the loan upon completion of construction of the project.

We may encounter issues with environmental law compliance if we take possession, through foreclosure or otherwise, of the real property that secures a commercial real estate loan.

A significant portion of our loan portfolio is secured by real property. During the ordinary course of business, we may foreclose on and take title to properties securing certain loans. In doing so, there is a risk that hazardous or toxic substances could be found

on these properties. If previously unknown or undisclosed hazardous or toxic substances are discovered, we may be liable for remediation costs, as well as for personal injury and property damage. Environmental laws may require us to incur substantial expenses which may materially reduce the affected property's value or limit our ability to use or sell the affected property. In addition, future laws or more stringent interpretations or enforcement policies with respect to existing laws may increase our exposure to environmental liability. Although we have policies and procedures to perform an environmental review at the time of underwriting a loan secured by real property, and also before initiating any foreclosure action on real property, these reviews may not be sufficient to detect all potential environmental hazards. The remediation costs and any other financial liabilities associated with an environmental hazard could have a material adverse effect on our financial condition and results of operations.

Our agricultural loans are often dependent upon the health of the agricultural industry in the location of the borrower, and the ability of the borrower to repay may be affected by many factors outside of the borrower's control.

At December 31, 2018, agricultural real estate loans totaled \$239.8 million, or approximately 3%, of our total loan portfolio. Payments on agricultural real estate loans are dependent on the profitable operation or management of the farm property securing the loan. The success of a farm may be affected by many factors outside the control of the borrower, including adverse weather conditions that prevent the planting of a crop or limit crop yields (such as hail, drought and floods), loss of livestock due to disease or other factors, declines in market prices for agricultural products (both domestically and internationally) and the impact of government regulations (including changes in price supports, subsidies and environmental regulations). In addition, many farms are dependent on a limited number of key individuals whose injury or death may significantly affect the successful operation of the farm. If the cash flow from a farming operation is diminished, the borrower's ability to repay the loan may be impaired. The primary crops in our market areas are corn, soybeans, peanuts and wheat. Accordingly, adverse circumstances affecting these crops could have a negative effect on our agricultural real estate loan portfolio.

We also originate agricultural operating loans. At December 31, 2018, these loans totaled \$325.6 million, or approximately 4%, of our total loan portfolio. As with agricultural real estate loans, the repayment of operating loans is dependent on the successful operation or management of the farm property. Likewise, agricultural operating loans involve a greater degree of risk than lending on residential properties, particularly in the case of loans that are unsecured or secured by rapidly depreciating assets such as farm equipment or assets such as livestock or crops. The primary livestock in our market areas include dairy cows, hogs and feeder cattle. In these cases, any repossessed collateral for a defaulted loan may not provide an adequate source of repayment of the outstanding loan balance as a result of the greater likelihood of damage to or depreciation in the value of livestock.

We hold one- to four-family first-lien residential mortgage loans in our loan portfolio that may not meet the strict definition of a qualified mortgage.

The residential mortgage loans that we hold in our loan portfolio, which totaled \$673.6 million, or approximately 9% of our total loan portfolio as of December 31, 2018, are primarily to borrowers we believe to be credit worthy based on internal standards and guidelines. Repayment is dependent upon the borrower's ability to repay the loan and the underlying value of the collateral. If we have overestimated or improperly calculated the abilities of the borrowers to repay those loans, default rates could be high, and we could face more legal process and costs in order to enforce collection of the loan obligations. If the value of the collateral is incorrect, we could face higher losses on the loans.

Our allowance for loan losses may prove to be insufficient to absorb losses in our loan portfolio.

We establish our allowance for loan losses in consultation with management of the Banks and maintain it at a level considered appropriate by management to absorb probable loan losses that are inherent in the portfolio. The amount of future loan losses is susceptible to changes in economic, operating and other conditions, including changes in interest rates, which may be beyond our control, and such losses may exceed current estimates. Despite the current stable economic and market conditions, there remains a risk of continued asset and economic deterioration. At December 31, 2018, our allowance for loan losses as a percentage of total loans was 0.84% and as a percentage of total nonperforming loans was approximately 85%. Although we believe that the allowance for loan losses is appropriate to absorb probable losses on any existing loans that may become uncollectible, we cannot predict loan losses with certainty, and we cannot provide assurance that our allowance for loan losses will prove sufficient to cover actual loan losses in the future. Further significant provisions, or charge-offs against our allowance that result in provisions, could have a significant negative impact on our profitability. Loan losses in excess of our reserves may adversely affect our business, financial condition and results of operations.

Liquidity and Interest Rate Risks

Liquidity is essential to our businesses.

We require liquidity to meet our deposit and debt obligations as they come due. Access to liquidity could be impaired by an inability to access the capital markets or unforeseen outflows of deposits. Our ability to meet current financial obligations is a function of our balance sheet structure, ability to liquidate assets and access to alternative sources of funds. Our access to deposits can be impacted by the liquidity needs of our customers as a substantial portion of our deposit liabilities are on demand, while a significant

portion of our assets are loans that cannot be sold in the same timeframe or are securities that may not be readily saleable if there is disruption in capital markets. If we become unable to obtain funds when needed, it could have a material adverse effect on our business, financial condition and results of operations.

The required accounting treatment of loans we acquire through acquisitions, including purchase credit impaired loans, could result in higher net interest margins and interest income in current periods and lower net interest margins and interest income in future periods.

Under United States generally accepted accounting principles ("GAAP"), we are required to record loans acquired through acquisitions, including purchase credit impaired loans, at fair value. Estimating the fair value of such loans requires management to make estimates based on available information and facts and circumstances on the acquisition date. Any discount, which is the excess of the amount of reasonably estimable and probable discounted future cash collections over the purchase price, is accreted into interest income over the weighted average remaining contractual life of the loans. Therefore, our net interest margins may initially increase due to the discount accretion. We expect the yields on the total loan portfolio will decline as our acquired loan portfolios pay down or mature and the corresponding accretion of the discount decreases. We expect downward pressure on our interest income to the extent that the runoff of our acquired loan portfolios is not replaced with comparable high-yielding loans. This could result in higher net interest margins and interest income in current periods and lower net interest margins and interest income in future periods.

Our liability portfolio, including deposits, may subject us to liquidity risk and pricing risk from concentrations.

We strive to maintain a diverse liability portfolio, and we manage deposit portfolio diversification through our asset/liability committee process. However, even with our efforts to maintain diversification, we occasionally accept larger deposit customers, and our typical deposit customers might occasionally carry larger balances. Unanticipated, significant changes in these large balances could affect our liquidity risk and pricing risk, particularly within the deposit portfolio of a single Bank, where the effects of the concentration would be greater than for Heartland as a whole. Our inability to manage deposit concentration risk could have a material adverse effect on our business, financial condition and results of operations.

Revenue from our mortgage lending operations is sensitive to changes in economic conditions, decreased economic activity, a slowdown in the housing market, higher interest rates or new legislation.

We earn revenue from fees we receive for originating mortgage loans through PrimeWest Mortgage Corporation. We earn servicing income for servicing mortgage loans through our servicing units at Dubuque Bank and Trust Company and PrimeWest Mortgage Corporation. Our overall mortgage revenue is highly dependent upon the volume of loans we originate and sell in the secondary market. Mortgage loan production levels are sensitive to changes in economic conditions and activity, strengths or weaknesses in the housing market and interest rate fluctuations. Generally, any sustained period of decreased economic activity or higher interest rates could adversely affect mortgage originations and, consequently, reduce our income from mortgage lending activities.

The value of our mortgage servicing rights can decline during periods of falling interest rates, and we may be required to take a charge against earnings for the decreased value.

A mortgage servicing right ("MSR") is the right to service a mortgage loan for a fee. We capitalize MSRs, primarily at PrimeWest Mortgage Corporation, when we originate mortgage loans and retain the servicing rights after we sell the loans. We carry MSRs at the lower of amortized cost or estimated fair value. Fair value is the present value of estimated future net servicing income, calculated based on a number of variables, including assumptions about the likelihood of prepayment by borrowers. Changes in interest rates can affect prepayment assumptions. When interest rates fall, borrowers are more likely to prepay their mortgage loans by refinancing them at a lower rate. As the likelihood of prepayment increases, the fair value of our MSRs can decrease. Each quarter we evaluate our MSRs for impairment based on the difference between the carrying amount and fair value, and, if temporary impairment exists, we establish a valuation allowance through a charge that negatively affects our earnings.

The derivative instruments that we use to hedge interest rate risk associated with our loans held for sale and rate locks on our mortgage banking business are complex and can result in significant losses.

We typically use derivatives and other instruments, primarily at PrimeWest Mortgage Corporation, to hedge changes in the value of loans held for sale and interest rate lock commitments. We generally do not hedge all of our risk, and we may not be successful in hedging any of the risk. Hedging is a complex process, requiring sophisticated models and constant monitoring, and our hedging models and assumptions may not fully predict or capture market changes. In addition, we may use hedging instruments that may not perfectly correlate with the value or income being hedged. There may be periods where we elect not to use derivatives and other instruments to hedge mortgage banking interest rate risk. We could incur significant losses from our hedging activities.

The market for loans held for sale to secondary purchasers, primarily GSEs, has changed during recent years and further changes could impair the gains we recognize on sale of mortgage loans.

We sell most of the fixed-rate mortgage loans we originate, primarily at PrimeWest Mortgage Corporation, in order to reduce our credit and interest rate risks and to provide funding for additional loans. We rely on GSEs to purchase loans that meet their

conforming loan requirements and on other capital markets investors to purchase loans that do not meet those requirements, which are referred to as "nonconforming" loans. During the past few years investor demand for nonconforming loans has fallen sharply, increasing credit spreads and reducing the ability to sell those loans. In response to the reduced liquidity in the capital markets, we may retain more nonconforming loans. When we retain a loan, not only do we keep the credit risk of the loan, but we also do not receive any sale proceeds that could be used to generate new loans. The absence of these sales proceeds could limit our ability to fund, and thus originate, new mortgage loans, reducing the fees we earn from originating and servicing loans. In addition, we cannot be assured that GSEs will not materially limit their purchases of conforming loans because of capital constraints or changes in their criteria for conforming loans (e.g., maximum loan amount or borrower eligibility). Each of the GSEs to which Heartland sells loans is currently in conservatorship, with its primary regulator, the Federal Housing Finance Agency acting as conservator. We cannot predict if, when or how the conservatorship will end, or any associated changes to the business structure and operations of the GSEs that could result. As noted above, there are various proposals to reform the housing finance market in the U.S., including the role of the GSEs in the housing finance market. The extent and timing of any such regulatory reform regarding the housing finance market and the GSEs, including whether the GSEs will continue to exist in their current form, as well as any effect on Heartland's business and financial results, are uncertain.

Our growth may create the need to raise additional capital in the future, but that capital may not be available when it is needed.

We are required by federal and state regulatory authorities to maintain adequate levels of capital to support our operations. We anticipate that our existing capital resources will satisfy our capital requirements for the foreseeable future. However, from time to time, we raise additional capital to support continued growth, both internally and through acquisitions. Our ability to raise additional capital, if needed, will depend on conditions in the capital markets at that time, which are outside of our control, and on our financial performance. Accordingly, we cannot assure you that we will be able to raise additional capital if needed on terms acceptable to us. If we cannot raise additional capital when needed, our ability to further expand our operations through internal growth and acquisitions could be materially impaired.

We rely on dividends from our subsidiaries for most of our revenue and are subject to restrictions on payment of dividends.

The primary source of funds for Heartland is dividends from the Banks. In general, the Banks may only pay dividends either out of their historical net income after any required transfers to surplus or reserves have been made or out of their retained earnings. The payment of dividends by any financial institution is affected by the requirement to maintain adequate capital pursuant to applicable capital adequacy guidelines and regulations, and a financial institution generally is prohibited from paying any dividends if, following payment thereof, the institution would be undercapitalized. These dividends are the principal source of funds to pay dividends on Heartland's common stock and to pay interest and principal on our debt.

Reduction in the value, or impairment of our investment securities, can impact our earnings and common stockholders' equity.

We maintained a balance of \$2.72 billion, or 24% of our assets, in investment securities at December 31, 2018. Changes in market interest rates can affect the value of these investment securities, with increasing interest rates generally resulting in a reduction of value. Although the reduction in value from temporary increases in market rates does not affect our income until the security is sold, it does result in an unrealized loss recorded in other comprehensive income that can reduce our common stockholders' equity. Further, we must periodically test our investment securities for other-than-temporary impairment in value. In assessing whether the impairment of investment securities is other-than-temporary, we consider the length of time and extent to which the fair value has been less than cost, the financial condition and near-term prospects of the issuer, and the intent and ability to retain our investment in the security for a period of time sufficient to allow for any anticipated recovery in fair value in the near term.

Operational Risks

We have a continuing need for technological change and we may not have the resources to effectively implement new technology.

The financial services industry is undergoing rapid technological changes with frequent introductions of new technology-driven products and services. In addition to being able to better serve customers, the effective use of technology increases efficiency and enables financial institutions to reduce costs. Our future success will depend, in part, upon our ability to address the needs of our customers by using technology to provide products and services that will satisfy customer demands for convenience, as well as to create additional efficiencies in our operations as we continue to grow and expand our market areas. Many of our larger competitors have substantially greater resources to invest in technological improvements. As a result, they may be able to offer additional or superior products to those that we will be able to offer, which would put us at a competitive disadvantage.

Our operations are affected by risks associated with our use of vendors and other third party service providers.

We rely on vendor and third party relationships for a variety of products and services necessary to maintain our day-to-day activities, particularly in the areas of correspondent relationships, operations, treasury management, information technology and security. This reliance exposes us to risks of those third parties failing to perform financially or failing to perform contractually or to our expectations. These risks could include material adverse impacts on our business, such as credit loss or fraud loss, disruption or interruption of business activities, cyber-attacks and information security breaches, poor performance of services affecting our customer relationships and/or reputation, and possibilities that we could be responsible to our customers for legal or regulatory violations committed by those third parties while performing services on our behalf. While we have implemented an active program of oversight to address this risk, there can be no assurance that our vendor and third party relationships will not have a material adverse impact on our business.

Interruption in or breaches of our network security, including the occurrence of a cyber-incident or a deficiency in our cybersecurity measures, may result in a loss of business, reputational damage, increased operating costs, as well as litigation, regulatory sanctions and other liabilities.

We rely heavily on communications and information systems to conduct our business, and as part of our business, we maintain significant amounts of data about our customers and the products they use. As a result, our operations are dependent upon our ability to protect our computer equipment against damage from physical theft, fire, power loss, telecommunications failure or a similar catastrophic event, as well as from security breaches, denial of service attacks, viruses, worms and other disruptive problems caused by hackers.

Denial of service attacks have been launched against a number of large financial institutions and several large retailers have disclosed substantial cybersecurity breaches affecting debit and credit card accounts of their customers. We have experienced cybersecurity incidents in the past, none of which have been significant. However, we anticipate that, as we grow, we could experience additional and potentially more serious incidents.

We make significant investments in various technology to identify and prevent intrusions into our information systems. Although we, with the help of third-party service providers, intend to continue to implement security technology and establish operational procedures to protect our computer systems, there can be no assurance that these security measures will be successful. We have policies and procedures designed to prevent or limit the effect of a failure, interruption or security breach of our information systems and perform regular audits using both internal and outside resources.

Information security risks continue to increase due to new technologies, the increasing use of the Internet and telecommunication technologies, including mobile devices, to conduct financial and other business transactions, and the increased sophistication and activities of organized crime, perpetrators of fraud, hackers, and others. Specifically, advances in computer capabilities, new discoveries in the field of cryptography or other developments could result in a compromise or breach of the algorithms we and our third-party service providers use to encrypt and protect customer transaction data.

The occurrence of any failure, interruption, or security breach of our information systems could result in violations of privacy and other laws, damage our reputation, result in a loss of customer business, subject us to additional regulatory scrutiny or expose us to civil litigation, any of which could have a material adverse effect on our financial condition and results of operations.

The potential for business interruption exists throughout our organization.

Integral to our performance is the continued efficacy of our technical systems, operational infrastructure, relationships with third parties and the vast array of associates and key executives in our day-to-day and ongoing operations. Failure by any or all of these resources subjects us to risks that may vary in size, scale and scope. These risks include, but are not limited to, operational or technical failures, ineffectiveness or exposure due to interruption in third party support, as well as the loss of key individuals or failure on the part of key individuals to perform properly. These risks are heightened during necessary data system changes or conversions and system integrations of newly acquired entities. Although management has established policies and procedures to address such failures, the occurrence of any such event could have a material adverse effect on our business, which, in turn, could have a material adverse effect on our financial condition and results of operations.

We are subject to risks from employee errors, customer or employee fraud and data processing system failures and errors.

Employee errors and employee or customer misconduct could subject us to financial losses or regulatory sanctions and seriously harm our reputation. Misconduct by our employees could include hiding unauthorized activities from us, improper or unauthorized activities on behalf of our customers or improper use of confidential information. It is not always possible to prevent employee errors and misconduct, and the precautions we take to prevent and detect this activity may not be effective in all cases. Employee errors could also subject us to financial claims for negligence. We maintain a system of internal controls and insurance coverage to mitigate against operational risks, including data processing system failures and errors and customer or employee fraud. Should

our internal controls fail to prevent or detect an occurrence, or if any resulting loss is not insured or exceeds applicable insurance limits, it could have a material adverse effect on our business, financial condition and results of operations.

Our market and growth strategy relies heavily on our management team, and the unexpected loss of key managers may adversely affect our operations.

Much of our success to date has been influenced strongly by our ability to attract and to retain senior management experienced in banking and financial services and familiar with the communities in our different market areas. Because our service areas are spread over such a wide geographical area, our management headquartered in Dubuque, Iowa, is dependent on the effective leadership and capabilities of the management in our local markets for the continued success of Heartland. Our ability to retain executive officers, the current management teams and loan officers of our operating subsidiaries will continue to be important to the successful implementation of our strategy and could be difficult during times of low unemployment. It is also critical, as we grow, to be able to attract and retain qualified additional management and loan officers with the appropriate level of experience and knowledge about our market area to implement our community-based operating strategy. The unexpected loss of services of any key management personnel, or the inability to recruit and retain qualified personnel in the future, could have an adverse effect on our business, financial condition and results of operations.

New lines of business, products and services are essential to our ability to compete but may subject us to additional risks.

We continually implement new lines of business and offer new products and services within existing lines of business to offer our customers a competitive array of products and services. There can be substantial risks and uncertainties associated with these efforts, particularly in instances where the markets for such products and services are still developing. In developing and marketing new lines of business and/or new products or services, we may invest significant time and resources. Initial timetables for the introduction and development of new lines of business and/or new products or services may not be achieved, and price and profitability targets may not prove feasible. External factors, such as compliance with regulations, competitive alternatives, and shifting market preferences, may also impact the successful implementation of a new line of business or a new product or service. Furthermore, any new line of business and/or new product or service could have a significant impact on the effectiveness of our system of internal controls. Failure to successfully manage these risks in the development and implementation of new lines of business or new products or services could have a material adverse effect on our business, financial condition and results of operations.

Our models may be improper or ineffective.

The processes we use to estimate our inherent loan losses and to measure the fair value of financial instruments, as well as the processes used to estimate the effects of changing interest rates and other market measures on our financial condition and results of operations, depends upon the use of analytical and forecasting models. These models could reflect assumptions that may not be accurate, particularly in times of market stress or other unforeseen circumstances. Even if these assumptions are adequate, the models may prove to be inadequate or inaccurate because of other flaws in their design or their implementation. If the models we use for interest rate risk and asset-liability management are inadequate, we may incur increased or unexpected losses upon changes in market interest rates or other market measures. If the models we use for determining our probable loan losses are inadequate, the allowance for loan losses may not be appropriate to support future charge-offs. If the models we use to measure the fair value of financial instruments are inadequate, the fair value of such financial instruments may fluctuate unexpectedly or may not accurately reflect what we could realize upon sale or settlement of such financial instruments. Any such failure in our analytical or forecasting models could have a material adverse effect on our business, financial condition and results of operations.

Our internal controls may be ineffective.

Management regularly reviews and updates our internal controls, disclosure controls and procedures and corporate governance policies and procedures. Any system of controls, however well designed and operated, is based in part on certain assumptions and can provide only reasonable, not absolute, assurances that the objectives of the controls are met. Any failure or circumvention of our controls and procedures or failure to comply with regulations related to controls and procedures could have a material adverse effect on our business, financial condition and results of operation.

We have recorded goodwill as a result of acquisitions, and if it becomes impaired, our earnings could be significantly impacted.

Under current accounting standards, goodwill is not amortized but, instead, is subject to impairment tests on at least an annual basis or more frequently if an event occurs or circumstances change that reduce the fair value of a reporting unit below its carrying amount. Although we do not anticipate impairment charges, if we conclude that some portion of our goodwill may be impaired, a non-cash charge for the amount of such impairment would be recorded against earnings. A goodwill impairment charge could be caused by a decline in our stock price or occurrence of a triggering event that compounds the negative results in an unfavorable quarter. At December 31, 2018, we had goodwill of \$391.7 million, representing approximately 30% of stockholders' equity.

The FASB has recently issued an accounting standard update that will result in a significant change in how we recognize credit losses and may have a material impact on our results of operations, financial condition or liquidity.

In June 2016, the Financial Accounting Standards Board ("FASB") issued an accounting standard update, "Financial Instruments-Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments," which replaces the current "incurred loss" model for recognizing credit losses with an "expected loss" model referred to as the Current Expected Credit Loss ("CECL") model. Under the CECL model, we will be required to present certain financial assets carried at amortized cost, such as loans held for investment and held-to-maturity debt securities, at the net amount expected to be collected. The measurement of expected credit losses is to be based on information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. This measurement will take place at the time the financial asset is first added to the balance sheet and periodically thereafter. This differs significantly from the incurred loss model required under current GAAP, which delays recognition until it is probable a loss has been incurred. Accordingly, we expect that the adoption of the CECL model will materially affect how we determine our allowance for loan losses and could require us to significantly increase our allowance. Moreover, the CECL model may create more volatility in the level of our allowance for loan losses. If we are required to materially increase our level of allowance for loan losses for any reason, such increase could adversely affect our business, financial condition and results of operations.

The new CECL standard will become effective for us for fiscal years beginning after December 15, 2019 and for interim periods within those fiscal years. We are currently evaluating the impact the CECL model will have on our accounting, but we expect to recognize a one-time cumulative-effect adjustment to our allowance for loan losses as of the beginning of the first reporting period in which the new standard is effective, consistent with regulatory expectations set forth in interagency guidance issued at the end of 2016. At this time, we cannot yet determine the magnitude of any such one-time cumulative adjustment or of the overall impact of the new standard on our results of operations, financial position and liquidity.

We have substantial deferred tax assets that could require a valuation allowance and a charge against earnings if we conclude that the tax benefits represented by the assets are unlikely to be realized.

Our consolidated balance sheet reflected approximately \$47.1 million of deferred tax assets at December 31, 2018, that represents differences in the timing of the benefit of deductions, credits and other items for accounting purposes and the benefit for tax purposes. To the extent we conclude that the value of this asset is not more likely than not to be realized, we would be obligated to record a valuation allowance against the asset, impacting our earnings during the period in which the valuation allowance is recorded. Assessing the need for, or the sufficiency of, a valuation allowance requires management to evaluate all available evidence, both negative and positive. Positive evidence necessary to overcome the negative evidence includes whether future taxable income in sufficient amounts and character within the carryback and carryforward periods is available under the tax law. When negative evidence (e.g., cumulative losses in recent years, history of operating losses or tax credit carryforwards expiring unused) exists, more positive evidence than negative evidence will be necessary. If the positive evidence is not sufficient to exceed the negative evidence, a valuation allowance for deferred tax assets is established. The creation of a substantial valuation allowance could have a significant negative impact on our reported results in the period in which it is recorded. The impact of the impairment of Heartland's deferred tax assets could have a material adverse effect on our business, results of operations and financial condition.

Strategic and External Risks

The soundness of other financial institutions could adversely affect our liquidity and operations.

Our ability to engage in routine funding transactions could be adversely affected by the actions and commercial soundness of other financial institutions. Financial services institutions are interrelated as a result of trading, clearing, counterparty or other relationships. We have exposure to many different counterparties, and we routinely execute transactions with counterparties in the financial industry, including brokers and dealers, commercial banks, investment banks, and other institutional clients. As a result, defaults by, or even rumors or questions about, one or more financial services institutions, or the financial services industry generally, have led to market-wide liquidity problems and could lead to losses or defaults by Heartland or the Banks or by other institutions. Many of these transactions expose us to credit risk in the event of default of our counterparty or client. In addition, our credit risk may be exacerbated when the collateral held by us cannot be realized upon or is liquidated at prices not sufficient to recover the full amount of the financial instrument exposure due us. There is no assurance that any such losses would not materially and adversely affect our results of operations.

We may experience difficulties in managing our growth and our growth strategy involves risks that may negatively impact our net income.

As part of our general growth strategy, we recently acquired several banks and may acquire additional banks that we believe provide a strategic and geographic fit with our business. We cannot predict the number, size or timing of acquisitions. To the extent that we grow through acquisitions, we cannot assure you that we will be able to adequately and profitably manage this growth. Acquiring other banks and businesses will involve risks commonly associated with acquisitions, including:

- potential exposure to unknown or contingent liabilities of the banks and businesses we acquire;
- exposure to potential asset quality issues of the acquired bank or related business;
- difficulty and expense of integrating the operations and personnel of banks and businesses we acquire;
- potential disruption to our business;
- potential restrictions on our business resulting from the regulatory approval process;
- inability to realize the expected revenue increases, costs savings, market presence and/or other anticipated benefits;
- potential diversion of our management's time and attention; and
- the possible loss of key employees and customers of the banks and businesses we acquire.

In addition to acquisitions, we may expand into additional communities or attempt to strengthen our position in our current markets by undertaking additional *de novo* bank formations or branch openings. Based on our experience, we believe that it generally takes three years or more for new banking facilities to first achieve operational profitability, due to the impact of organization and overhead expenses and the start-up phase of generating loans and deposits. To the extent that we undertake additional branching and *de novo* bank and business formations, we are likely to continue to experience the effects of higher operating expenses relative to operating income from the new operations, which may have an adverse effect on our levels of reported net income, return on average equity and return on average assets.

We face intense competition in all phases of our business and competitive factors could adversely affect our business.

The banking and financial services business in our markets is highly competitive and is currently undergoing significant change. Our competitors include large regional banks, local community banks, online banks, thrifts, securities and brokerage companies, mortgage companies, insurance companies, finance companies, money market mutual funds, credit unions and other non-bank financial service providers, and increasingly these competitors provide integrated financial services over a broad geographic area. Some of our competitors may also have access to governmental programs that impact their position in the marketplace favorably. Increased competition in our markets may result in changes in our business model, sales of certain assets or business units, decreases in the amounts of our loans and deposits, reduced spreads between loan rates and deposit rates or loan terms that are more favorable to the borrower. Any of these results could have a material adverse effect on our ability to grow and remain profitable.

Legal, Compliance and Reputational Risks

Government regulation can result in limitations on our growth strategy.

We operate in a highly regulated environment and are subject to supervision and regulation by a number of governmental regulatory agencies, including the Federal Reserve, the FDIC, the CFPB, Housing and Urban Development ("HUD") and the various state agencies where we have a bank presence. Regulations adopted by these agencies, which are generally intended to provide protection for depositors and customers rather than for the benefit of stockholders, govern a comprehensive range of matters relating to ownership and control of our shares, our acquisition of other companies and businesses, our ability to offer new products, our ability to obtain financing and other aspects of our strategy.

We are subject to extensive and evolving government regulation and supervision, which can increase the cost of doing business and lead to enforcement actions.

Federal and state banking laws impose a comprehensive system of supervision, regulation and enforcement on the operations of FDIC-insured institutions, their holding companies and affiliates that is intended primarily for the protection of the FDIC-insured deposits and depositors of banks, rather than shareholders. These laws, and the regulations of the bank regulatory agencies issued under them, affect, among other things, the scope of our business, the kinds and amounts of investments that we and the Banks may make, reserve requirements, required capital levels relative to assets, the nature and amount of collateral for loans, the establishment of branches, our ability to merge, consolidate and acquire, dealings with our and the Banks' insiders and affiliates and our payment of dividends.

While it is anticipated that the current administration will not increase the regulatory burden on community banks and may further reduce some of the burdens associated with implementation of the Dodd-Frank Act beyond those enacted in the Economic Growth Act, the ongoing impact of the administration is impossible to predict with any certainty, and changes in existing regulations and their enforcement may require modification to Heartland's existing regulatory compliance and risk management infrastructure.

We have experienced heightened regulatory requirements and scrutiny following the global financial crisis and as a result of the Dodd-Frank Act. Although the reforms primarily targeted systemically important financial service providers, their influence filtered down in varying degrees to community banks over time and the reforms have caused our compliance and risk management processes, and the costs thereof, to increase. The Dodd-Frank Act established the CFPB with broad authority to administer and

enforce a new federal regulatory framework of consumer financial regulation, changing the base for deposit insurance assessments, introducing regulatory rate-setting for interchange fees charged to merchants for debit card transactions, enhancing the regulation of consumer mortgage banking, changing the methods and standards for resolution of troubled institutions, and changing the Tier 1 regulatory capital ratio calculations for bank holding companies.

The Board of Governors of the Federal Reserve System regulates the supply of money and credit in the United States. Its fiscal and monetary policies determine, in a large part, our cost of funds for lending and investing and the return that can be earned on those loans and investments, both of which affect our net interest margin. Federal Reserve Board policies can also materially affect the value of financial instruments that we hold, such as debt securities and mortgage servicing rights. Recent changes in the laws and regulations that apply to us have been significant. Further dramatic changes in statutes, regulations or policies could affect us in substantial and unpredictable ways, including limiting the types of financial services and products that we offer and/or increasing the ability of non-banks to offer competing financial services and products.

More stringent requirements related to capital and liquidity may limit our ability to return earnings to stockholders or operate or invest in our business.

The Federal Reserve has adopted capital adequacy guidelines that are used to assess the adequacy of capital in supervising a bank holding company. The federal banking agencies implemented final rules to establish a new comprehensive regulatory capital framework with a phase-in period beginning on January 1, 2015, and ending on January 1, 2019. The final Basel III rules and changes required by the Dodd-Frank Act substantially amended the regulatory risk-based capital rules applicable to Heartland. Under Basel III, the fully-phased in capital conservation buffer is 2.50% above the minimum capital requirement.

Additional requirements may be imposed in the future. The Basel Committee has recently finalized a package of revisions to the Basel III framework, unofficially known as Basel IV. The changes are meant to improve the calculation of risk-weighted assets and the comparability of capital ratios. Federal banking regulators are expected to undertake one or more rulemakings in future years to implement these revisions in the United States. The ultimate impact on our capital and liquidity will depend on the final United States rulemakings and implementation process thereafter.

We are subject to additional regulatory requirements because our total assets exceed \$10 billion, and these additional requirements could have an adverse effect on our financial condition or results of operations.

Various federal banking laws and regulations, including rules adopted by the Federal Reserve pursuant to the requirements of the Dodd-Frank Act, impose heightened requirements on certain large banks and bank holding companies. Most of these rules apply primarily to bank holding companies with at least \$50 billion in total consolidated assets, but certain rules also apply to banks and bank holding companies with at least \$10 billion in total consolidated assets.

Effective July 1, 2019, which is expected to be the fourth consecutive quarter (and any applicable phase-in period) where our total average consolidated assets equals or exceeds \$10 billion, we will, among other requirements:

- be subject to comply with the Durbin Amendment, which will reduce interchange income
- calculate our FDIC deposits assessment base using a performance score and loss-severity score system; and
- be subject to more frequent regulatory examinations.

We may be required to repurchase mortgage loans or reimburse investors and others as a result of breaches in contractual representations and warranties.

We sell residential mortgage loans to various parties, including GSEs and other financial institutions that purchase mortgage loans for investment or private label securitization. The agreements under which we sell mortgage loans and the insurance or guaranty agreements with the FHA and VA contain various representations and warranties regarding the origination and characteristics of the mortgage loans, including ownership of the loan, compliance with loan criteria set forth in the applicable agreement, validity of the lien securing the loan, absence of delinquent taxes or liens against the property securing the loan, and compliance with applicable origination laws. We may be required to repurchase mortgage loans, indemnify the investor or insurer, or reimburse the investor or insurer for credit losses incurred on loans in the event of a breach of contractual representations or warranties that is not remedied within a period (usually 90 days or less) after we receive notice of the breach. Contracts for mortgage loan sales to the GSEs include various types of specific remedies and penalties that could be applied to inadequate responses to repurchase requests. Similarly, the agreements under which we sell mortgage loans require us to deliver various documents to the investor, and we may be obligated to repurchase any mortgage loan as to which the required documents are not delivered or are defective. We establish a mortgage repurchase liability related to the various representations and warranties that reflect management's estimate of losses for loans which we have a repurchase obligation. Our mortgage repurchase liability represents management's best estimate of the probable loss that we may expect to incur for the representations and warranties in the contractual provisions of our sales of mortgage loans. Because the level of mortgage loan repurchase losses depends upon economic factors, investor demand strategies

and other external conditions that may change over the life of the underlying loans, the level of the liability for mortgage loan repurchase losses is difficult to estimate and requires considerable management judgment. If economic conditions and the housing market deteriorate or future investor repurchase demand and our success at appealing repurchase requests differ from past experience, we could experience increased repurchase obligations and increased loss severity on repurchases, requiring additions to the repurchase liability.

Litigation and enforcement actions could result in negative publicity and could adversely impact our business and financial results.

We face significant legal and regulatory risks in our business, and the volume of claims and amount of damages and penalties claimed in litigation and governmental proceedings against financial institutions have increased in recent years. Reputation risk, or the risk to our earnings and capital from the resulting negative publicity, is inherent to our business. Current public uneasiness with the United States banking system heightens this risk, as banking customers often transfer news regarding consumer fraud, financial difficulties or even failure of some institutions, to fear of fraud, financial difficulty or failure of even the most secure institutions. In this climate, any negative news may become cause for curtailment of business relationships, withdrawal of funds or other actions that can have a compounding effect, and could adversely affect our operations. Substantial legal liability or significant governmental action against us could materially impact our business and financial results. Also, the resolution of a litigation or regulatory matter could result in additional accruals or exceed established accruals for a particular period, which could materially impact our results from operations for that period.

Risks of Owning Stock in Heartland

Our stock price can be volatile.

Our stock price can fluctuate widely in response to a variety of factors, including: actual or anticipated variations in our quarterly operating results; recommendations by securities analysts; acquisitions or business combinations; capital commitments by or involving Heartland or our Banks; operating and stock price performance of other companies that investors deem comparable to us; new technology used or services offered by our competitors; new reports relating to trends, concerns and other issues in the financial services industry; and changes in government regulations. General market fluctuations, industry factors and general economic and political conditions and events have caused a decline in our stock price in the past, and these factors, as well as, interest rate changes, continued unfavorable credit loss trends, or unforeseen events such as terrorist attacks could cause our stock price to be volatile regardless of our operating results.

Stockholders may experience dilution as a result of future equity offerings and acquisitions.

In order to raise capital for future acquisitions or for general corporate purposes, we may offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at a price per share that may be lower than the current price. In addition, investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, may be higher or lower than the price paid by existing stockholders.

Certain banking laws and the Heartland Stockholder Rights Plan may have an anti-takeover effect.

Certain federal banking laws, including regulatory approval requirements, could make it more difficult for a third party to acquire Heartland, even if doing so would be perceived to be beneficial to Heartland's stockholders. In addition, Heartland's Amended and Restated Rights Agreement (the "Rights Plan") causes it to be difficult for any person to acquire 15% or more of Heartland's outstanding stock (with certain limited exceptions) without the permission of our board of directors. The combination of these provisions may inhibit a non-negotiated merger or other business combination, which, in turn, could adversely affect the market price of Heartland's common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

As of December 31, 2018, Heartland had no unresolved staff comments.

ITEM 2. PROPERTIES

The following table is a listing of Heartland's principal operating facilities and the home offices of each of the Banks and of Citizens Finance Parent Co. as of December 31, 2018:

Name and Main Facility Address	Main Facility Square Footage	Main Facility Owned or Leased	Number of Locations
Heartland Financial USA, Inc. 1398 Central Avenue Dubuque, IA 52001	65,000	Owned	3
Dubuque Bank and Trust Company 1398 Central Avenue Dubuque, IA 52001	65,500	Owned	10
Illinois Bank & Trust 6855 E. Riverside Blvd. Rockford, IL 60114	8,000	Owned	10
Wisconsin Bank & Trust 8240 Mineral Point Road Madison, WI 53719	19,000	Owned	17
New Mexico Bank & Trust 320 Gold NW Albuquerque, NM 87102	11,400	Lease term through 2021	17
Arizona Bank & Trust 2036 E. Camelback Road Phoenix, AZ 85016	14,000	Owned	7
Rocky Mountain Bank 2615 King Avenue West Billings, MT 59102	16,600	Owned	9
Citywide Banks 1800 Larimer Street Suite 100 Denver, CO 80202	8,700	Lease term through 2030	25
Minnesota Bank & Trust 7701 France Avenue South, Suite 110 Edina, MN 55435	6,100	Lease term through 2023	2
Morrill & Janes Bank and Trust Company 6740 Antioch Road Merriam, KS 66204	7,500	Owned	9
Premier Valley Bank 255 East River Park Circle, Suite 180 Fresno, CA 93720	17,600	Lease term through 2023	8
First Bank & Trust ⁽¹⁾ 9816 Slide Road Lubbock, TX 79424	64,500	Owned	15
Citizens Finance Parent Co. ⁽²⁾ 2200 John F. Kennedy Road, Suite 103 Dubuque, IA 52002	5,900	Lease term through 2019	14

(1) Includes PrimeWest Mortgage Corporation loan production offices.

(2) The consumer finance loan portfolios of the Citizens Finance companies were sold on January 11, 2019, and the locations were closed in the first quarter of 2019.

The corporate office of Heartland is located in Dubuque Bank and Trust Company's main office. A majority of the support functions provided to the Banks by Heartland are performed in two leased facilities: one located at 1301 Central Avenue in Dubuque, Iowa, which is leased from Dubuque Bank and Trust Company, and the other located at 700 Locust Street, Suites 300 and 400 in Dubuque, Iowa, which is leased from an unrelated third party.

For information on obligations related to our leased facilities, see Note 15 "Commitments and Contingent Liabilities" of the consolidated financial statements.

ITEM 3. LEGAL PROCEEDINGS

There are no material pending legal proceedings to which Heartland or its subsidiaries are a party at December 31, 2018, other than ordinary routine litigation incidental to their respective businesses. While the ultimate outcome of current legal proceedings cannot be predicted with certainty, it is the opinion of management that the resolution of these legal actions should not have a material effect on Heartland's consolidated financial position or results of operations.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable

EXECUTIVE OFFICERS

The names and ages of the executive officers of Heartland, the position held by these officers with Heartland, and the positions held with Heartland subsidiaries as of December 31, 2018, are set forth below:

Name	Age	Position with Heartland and Subsidiaries and Principal Occupation
Lynn B. Fuller	69	Executive Operating Chairman and Director of Heartland; Vice Chairman of Dubuque Bank and Trust Company, Wisconsin Bank & Trust, New Mexico Bank & Trust, Arizona Bank & Trust, Rocky Mountain Bank, Citywide Banks, Minnesota Bank & Trust, Morrill & Janes Bank and Trust Company, Premier Valley Bank and First Bank & Trust; Director of Heartland Financial USA, Inc. Insurance Services
Bruce K. Lee	58	Chief Executive Officer, President and Director of Heartland; Director of Citywide Banks and First Bank & Trust; President of Heartland Financial USA, Inc. Insurance Services
Bryan R. McKeag	58	Executive Vice President, Chief Financial Officer of Heartland; Treasurer of Citizens Finance Parent Co.; Director of Heartland Financial USA, Inc. Insurance Services
Andrew E. Townsend	52	Executive Vice President, Chief Credit Officer of Heartland
Brian J. Fox	70	Executive Vice President, Operations, of Heartland
David A. Prince	49	Executive Vice President, Commercial Banking, of Heartland
Janet M. Quick	53	Executive Vice President, Deputy Chief Financial Officer, Principal Accounting Officer of Heartland
Rodney L. Sloan	59	Executive Vice President, Chief Risk Officer of Heartland
Deborah K. Deters	54	Executive Vice President, Chief Human Resources Officer, of Heartland
Michael J. Coyle	73	Executive Vice President, Senior General Counsel, of Heartland; Secretary of Heartland Financial USA, Inc. Insurance Services
Lynn H. Fuller	35	President and Chief Executive Officer of Dubuque Bank and Trust Company

Lynn B. Fuller was named Executive Operating Chairman of Heartland in 2018. Mr. Fuller has been a Director of Heartland and of Dubuque Bank and Trust Company since 1984 and was the Chief Executive Officer of Heartland from 1999 to 2018. He was President of Heartland from 1987 to 2015. Mr. Fuller has been a Director of Wisconsin Bank & Trust since 1997, New Mexico Bank & Trust since 1998, Arizona Bank & Trust since 2003, Rocky Mountain Bank since 2004, Citywide Banks since 2006, Minnesota Bank & Trust since 2008, Heritage Bank, N.A. from 2012 until its merger with Arizona Bank & Trust in 2013, Morrill & Janes Bank and Trust Company since 2013. In 2015, he was named Director of Heartland Financial USA, Inc. Insurance Services and Premier Valley Bank. In 2018, Mr. Fuller was named a Director of First Bank & Trust. He was a Director of Galena State Bank & Trust Co. from 1992 to 2004 and of Illinois Bank & Trust from 1995 until 2004. Mr. Fuller joined Dubuque Bank and Trust Company in 1971 as a consumer loan officer and was named Dubuque Bank and Trust Company's Executive Vice President and Chief Executive Officer in 1985. Mr. Fuller was President of Dubuque Bank and Trust Company from 1987 until 1999 at which time he was named Chief Executive Officer of Heartland. Mr. Fuller is the father of Lynn H. Fuller, President and Chief Executive Officer of Dubuque Bank and Trust Company.

Bruce K. Lee was named Chief Executive Officer of Heartland in 2018. Mr. Lee joined Heartland in 2015 as President and was elected a Director of Heartland in 2017. Mr. Lee was a Director of Rocky Mountain Bank from 2015 to 2018. Mr. Lee has been a Director of Heartland Financial USA, Inc. Insurance Services in 2015. In 2017, Mr. Lee was named a Director of Citywide Banks, and in 2018, he was named a Director of First Bank & Trust. Prior to joining Heartland, Mr. Lee held various leadership positions at Fifth Third Bancorp from 2001 to 2013, serving most recently as Executive Vice President, Chief Credit Officer from 2011 to 2013. Mr. Lee previously served as President and CEO of a Fifth Third affiliate bank in Ohio where he managed sales and service functions for retail, commercial, residential mortgage, and investments as well as finance, human resources, and

marketing. Prior to Fifth Third, Mr. Lee served as an Executive Vice President and board member for Capital Bank, a community bank located in Sylvania, Ohio.

Bryan R. McKeag joined Heartland in 2013 as Executive Vice President, Chief Financial Officer. Mr. McKeag was named Director of Heartland Financial USA, Inc. Insurance Services in 2015. Prior to joining Heartland, Mr. McKeag served as Executive Vice President, Corporate Controller and Principal Accounting Officer with Associated Banc-Corp in Green Bay, Wisconsin. Prior to Associated Banc-Corp, Mr. McKeag spent 9 years in various finance positions at JP Morgan and 9 years in public accounting at KPMG in Minneapolis. He is an inactive holder of the certified public accountant certification.

Andrew E. Townsend was named Executive Vice President, Chief Credit Officer, of Heartland in 2016. Mr. Townsend joined Dubuque Bank and Trust Company in 1993 as a Loan Review Officer and was selected to join Galena State Bank as Executive Vice President, Head of Lending in 1996. In 2003, Mr. Townsend assumed the position of President and CEO of Galena State Bank and joined the bank's board of directors. He was named Deputy Chief Credit Officer of Heartland in 2013. Prior to joining Heartland, he worked at Bank One in the loan review area and had also been an examiner for the Iowa Division of Banking.

Brian J. Fox joined Heartland in 2010 as Executive Vice President, Operations. From 2008 until joining Heartland, Mr. Fox served as Chief Information Officer of First Olathe Bancshares in Overland Park, Kansas. For the eight years prior to joining First Olathe Bancshares, Mr. Fox drew on his 30 years of experience at various banking organizations to provide consulting services to over 100 community banks as Senior Consultant at Vitex, Inc. His areas of responsibility have included strategic planning, credit administration, loan workouts, information technology, project management, mortgage banking, deposit operations and loan operations.

David A. Prince joined Heartland in 2018 as Executive Vice President, Commercial Banking. Prior to joining Heartland, Mr. Prince was the Commercial Banking Group Executive Vice President at Associated Banc-Corp., headquartered in Green Bay, Wisconsin from 2010 until joining Heartland. Mr. Prince has served in leadership roles at GE Capital Commercial Finance and National City Bank and has extensive commercial lending experience.

Janet M. Quick was named Executive Vice President, Deputy Chief Financial Officer and Principal Accounting Officer in January 2016. Ms. Quick had served as Senior Vice President, Deputy Chief Financial Officer since July 2013. Ms. Quick has been with Heartland since 1994, serving in various audit, finance and accounting positions. Prior to joining Heartland, Ms. Quick was with Hawkeye Bancorporation in the corporate finance area. She is an active holder of the certified public accountant certification.

Rodney L. Sloan was named Executive Vice President, Chief Risk Officer in August 2011. Mr. Sloan previously served as Senior Vice President, Credit Administration of Heartland since January 2011. Prior to joining Heartland, he served in various roles with Old Second Bancorp in Aurora, Illinois from 1990 to 2011. Mr. Sloan oversees all facets of the enterprise-wide risk management program and provides executive leadership to the compliance, loan review and BSA/AML functions at Heartland.

Deborah K. Deters joined Heartland in 2017 as Executive Vice President, Chief Human Resource Officer. Ms. Deters most recently served as the Senior Vice President and Chief Human Resources Officer at HUB International, LTD., based in Chicago, Illinois from 2009 until joining Heartland. While at HUB she was named the organization's first Chief Human Resources Officer and transformed its Human Resources function while supporting the company's growth from 4,000 to over 10,000 employees. Prior to HUB International, LTD., Ms. Deters held several positions over 17 years with Bally Entertainment, finishing as Senior Vice President, Chief Human Resource Officer of Bally Total Fitness.

Michael J. Coyle joined Heartland in 2009 as Executive Vice President, Senior General Counsel. He served as Corporate Secretary from 2013 to 2018. In 2015, Mr. Coyle was named Secretary of Heartland Financial USA, Inc. Insurance Services. Prior to joining Heartland, Mr. Coyle was an attorney with the Dubuque, Iowa based law firm of Fuerste, Carew, Coyle, Juergens & Sudmeier, P.C. for 38 years, including 35 years as a senior partner. He has extensive experience in corporate and contract law.

Lynn H. Fuller was named President and Chief Executive Officer of Dubuque Bank and Trust Company in 2017. Mr. Fuller joined Heartland in 2014 as Executive Vice President, Corporate Director of Retail. In 2016, Mr. Fuller assumed the position of Market President of Dubuque Bank and Trust Company, and in 2017, Mr. Fuller was named President and Chief Executive Officer of Dubuque Bank and Trust Company. He serves on the board of Dubuque Bank and Trust Company. Prior to joining Heartland, from 2010 to 2013, Mr. Fuller was a Case Team Leader at Bain & Company in Chicago, Illinois. He led his team in providing expert advice on client issues and industry topics and recommended solutions.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Heartland's common stock was held by approximately 3,000 stockholders of record as of February 21, 2019, and approximately 19,000 additional stockholders held shares in street name. The common stock of Heartland has been quoted on the Nasdaq Stock Market since May 2003 under the symbol "HTLF" and is a Nasdaq Global Select Market security.

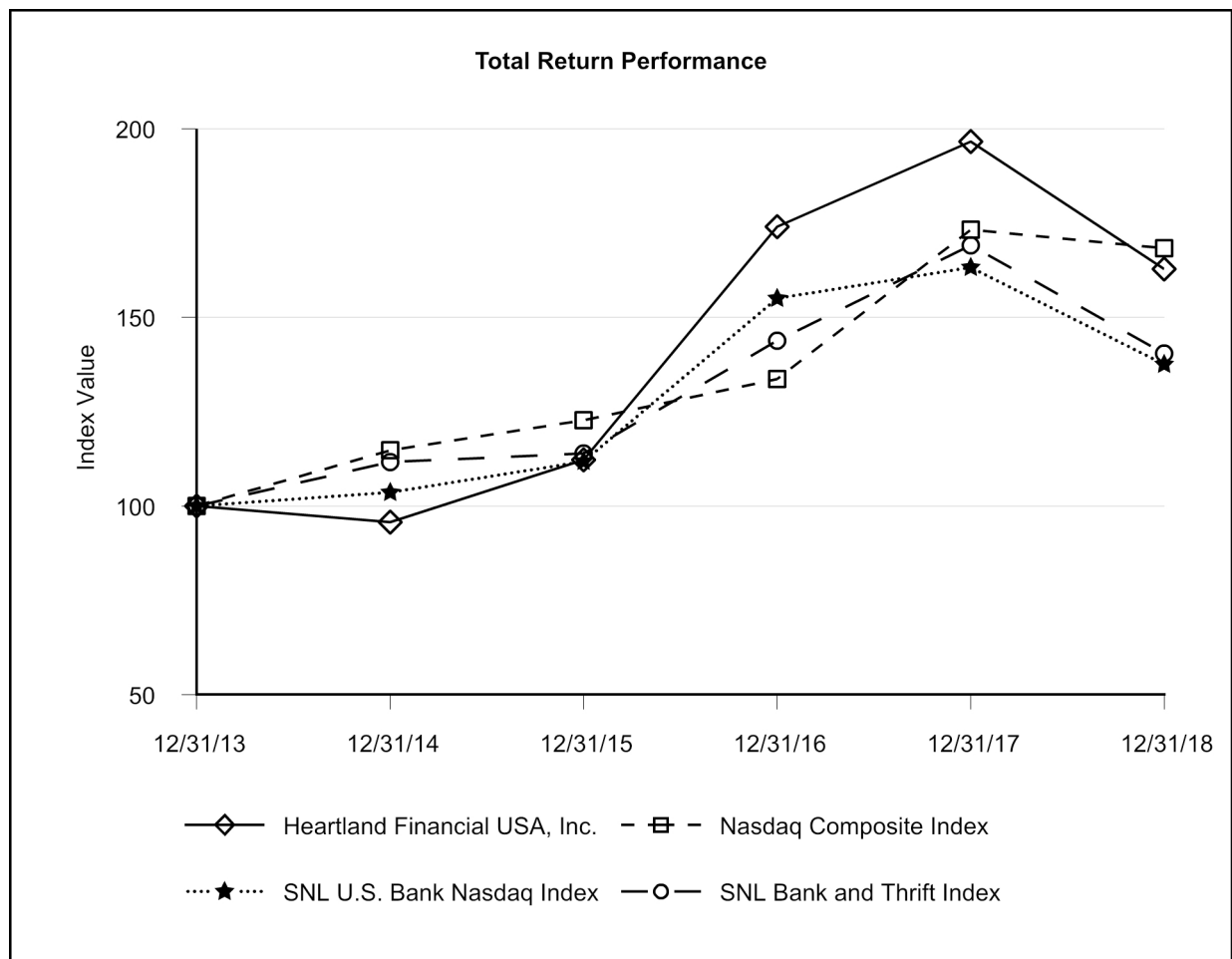
Effective January 24, 2008, Heartland's board of directors authorized management to acquire and hold up to 500,000 shares of common stock as treasury shares at any one time. Heartland and its affiliated purchasers made no purchases of its common stock during the year ended December 31, 2018.

The following table and graph show a five-year comparison of cumulative total returns for Heartland, the Nasdaq Composite Index, the SNL U.S. Bank Nasdaq Index and the SNL Bank and Thrift Index, in each case assuming investment of \$100 on December 31, 2013, and reinvestment of dividends. The table and graph were prepared at our request by S&P Global Market Intelligence.

Cumulative Total Return Performance						
	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018
Heartland Financial USA, Inc.	\$ 100.00	\$ 95.67	\$ 112.17	\$ 174.05	\$ 196.62	\$ 162.83
Nasdaq Composite Index	100.00	114.75	122.74	133.62	173.22	168.30
SNL U.S. Bank NASDAQ Index	100.00	103.57	111.80	155.02	163.20	137.56
SNL Bank and Thrift Index	100.00	111.63	113.89	143.78	169.07	140.45

COMPARISON OF FIVE YEAR CUMULATIVE TOTAL RETURN* ASSUMES \$100 INVESTED ON DECEMBER 31, 2013

* Total return assumes reinvestment of dividends



ITEM 6. SELECTED FINANCIAL DATA

The following tables contain selected historical financial data for Heartland for the years ended December 31, 2018, 2017, 2016, 2015 and 2014. The selected historical consolidated financial information set forth below is qualified in its entirety by reference to, and should be read in conjunction with, Heartland's consolidated financial statements and notes thereto, included elsewhere in this Annual Report on Form 10-K, and Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations."

SELECTED FINANCIAL DATA

(Dollars in thousands, except per share data)

	For the Years Ended December 31,				
	2018	2017	2016	2015	2014
STATEMENT OF INCOME DATA					
Interest income	\$ 465,820	\$ 363,658	\$ 326,479	\$ 265,968	\$ 237,042
Interest expense	51,866	33,350	31,813	31,970	33,969
Net interest income	413,954	330,308	294,666	233,998	203,073
Provision for loan losses	24,013	15,563	11,694	12,697	14,501
Net interest income after provision for loan losses	389,941	314,745	282,972	221,301	188,572
Noninterest income	109,160	102,022	113,601	110,685	82,224
Noninterest expenses	353,888	297,675	279,668	251,046	215,800
Income taxes	28,215	43,820	36,556	20,898	13,096
Net income ⁽¹⁾	116,998	75,272	80,349	60,042	41,900
Preferred dividends and discount	(39)	(58)	(292)	(817)	(817)
Interest expense on convertible preferred debt	—	12	51	—	—
Net income available to common stockholders	\$ 116,959	\$ 75,226	\$ 80,108	\$ 59,225	\$ 41,083

PER COMMON SHARE DATA

Net income – diluted	\$ 3.52	\$ 2.65	\$ 3.22	\$ 2.83	\$ 2.19
Cash dividends	\$ 0.59	\$ 0.51	\$ 0.50	\$ 0.45	\$ 0.40
Dividend payout ratio	16.76%	19.25%	15.53%	15.90%	18.26%
Book value per common share (GAAP)	\$ 38.44	\$ 33.07	\$ 28.31	\$ 25.92	\$ 22.40
Tangible book value per common share (non-GAAP) ⁽²⁾	\$ 25.70	\$ 23.99	\$ 22.55	\$ 20.60	\$ 20.57
Weighted average shares outstanding-diluted	33,213,148	28,425,652	24,873,430	20,929,385	18,741,921
Tangible common equity ratio (non-GAAP) ⁽³⁾	8.08%	7.53%	7.28%	6.09%	6.16%

Reconciliation of Tangible Book Value Per Common Share (non-GAAP)⁽⁴⁾

Common stockholders' equity (GAAP)	\$ 1,325,175	\$ 990,519	\$ 739,559	\$ 581,475	\$ 414,619
Less goodwill	391,668	236,615	127,699	97,852	35,583
Less core deposit intangibles and customer relationship intangibles, net	47,479	35,203	22,775	22,020	8,948
Tangible common stockholders' equity (non-GAAP)	\$ 886,028	\$ 718,701	\$ 589,085	\$ 461,603	\$ 370,088
Common shares outstanding, net of treasury stock	34,477,499	29,953,356	26,119,929	22,435,693	18,511,125
Common stockholders' equity (book value) per share (GAAP)	\$ 38.44	\$ 33.07	\$ 28.31	\$ 25.92	\$ 22.40
Tangible book value per common share (non-GAAP)	\$ 25.70	\$ 23.99	\$ 22.55	\$ 20.57	\$ 19.99

Reconciliation of Tangible Common Equity Ratio (non-GAAP)⁽⁵⁾

Total assets (GAAP)	\$ 11,408,006	\$ 9,810,739	\$ 8,247,079	\$ 7,694,754	\$ 6,051,812
Less goodwill	391,668	236,615	127,699	97,852	35,583
Less core deposit intangibles and customer relationship intangibles, net	47,479	35,203	22,775	22,020	8,948
Total tangible assets (non-GAAP)	\$ 10,968,859	\$ 9,538,921	\$ 8,096,605	\$ 7,574,882	\$ 6,007,281
Tangible common equity ratio (non-GAAP)	8.08%	7.53%	7.28%	6.09%	6.16%

(1) For a discussion of the impact of recent acquisitions on our net income, see Item 7. "Management's Discussion and Analysis of Financial Condition."

(2) Refer to the "Reconciliation of Tangible Book Value Per Common Share (non-GAAP)" table.

(3) Refer to the "Reconciliation of Tangible Common Equity Ratio (non-GAAP)" table.

(4) Tangible book value per common share is total common stockholders' equity less goodwill and core deposit and customer relationship intangibles, net, divided by common shares outstanding, net of treasury. This amount is a non-GAAP financial measure but has been included as it is considered to be a critical metric with which to analyze and evaluate the financial condition and capital strength of Heartland. This measure should not be considered a substitute for operating results determined in accordance with GAAP.

(5) The tangible common equity ratio is total common stockholders' equity less goodwill and core deposit intangibles, net divided by total assets less goodwill and core deposit intangibles, net. This ratio is a non-GAAP financial measure but has been included as it is considered to be a critical metric with which to analyze and evaluate the financial condition and capital strength of Heartland. This measure should not be considered a substitute for operating results determined in accordance with GAAP.

SELECTED FINANCIAL DATA (Continued)

(Dollars in thousands, except per share data)

	As of and For the Years Ended December 31,				
	2018	2017	2016	2015	2014
BALANCE SHEET DATA					
Investments	\$ 2,715,388	\$ 2,492,866	\$ 2,131,086	\$ 1,878,994	\$ 1,706,953
Loans held for sale	119,801	44,560	61,261	74,783	70,514
Total loans receivable ⁽¹⁾	7,407,697	6,391,464	5,351,719	5,001,486	3,878,003
Allowance for loan losses	61,963	55,686	54,324	48,685	41,449
Total assets	11,408,006	9,810,739	8,247,079	7,694,754	6,051,812
Total deposits ⁽²⁾	9,396,429	8,146,909	6,847,411	6,405,823	4,768,022
Long-term obligations	274,905	285,011	288,534	263,214	395,705
Preferred equity	—	938	1,357	81,698	81,698
Common stockholders' equity	1,325,175	990,519	739,559	581,475	414,619
EARNINGS PERFORMANCE DATA					
Return on average total assets	1.09%	0.83%	0.98%	0.88%	0.70%
Return on average common equity (GAAP)	9.93	8.63	11.80	11.92	10.62
Return on average tangible common equity (non-GAAP) ⁽³⁾	14.79	11.45	15.15	13.90	12.04
Net interest margin (GAAP)	4.26	4.04	3.95	3.80	3.77
Net interest margin, fully tax-equivalent (non-GAAP) ⁽⁴⁾	4.32	4.22	4.13	3.97	3.96
Efficiency ratio, fully tax equivalent ⁽⁵⁾	63.54%	65.40%	66.25%	69.16%	71.61%
Earnings to fixed charges:					
Excluding interest on deposits	8.59x	7.69x	7.27x	5.20x	3.98x
Including interest on deposits	3.65	4.30	4.38	3.33	2.50
ASSET QUALITY RATIOS					
Nonperforming assets to total assets	0.69%	0.76%	0.91%	0.67%	0.74%
Nonperforming loans to total loans	0.98	0.99	1.20	0.79	0.65
Net loan charge-offs to average loans	0.25	0.24	0.11	0.12	0.39
Allowance for loan losses to total loans	0.84	0.87	1.02	0.97	1.07
Allowance for loan losses to nonperforming loans	85.27	87.82	84.37	122.77	165.33
CONSOLIDATED CAPITAL RATIOS					
Average equity to average assets	10.94%	9.69%	8.53%	8.55%	8.00%
Average common equity to average assets	10.93	9.68	8.31	7.35	6.60
Total capital to risk-adjusted assets	13.72	13.45	14.01	13.74	15.73
Tier 1 capital	12.16	11.70	11.93	11.56	12.95
Common Equity Tier 1 ⁽⁶⁾	10.66	10.07	10.09	8.23	—
Tier 1 leverage	9.73	9.20	9.28	9.58	9.75
Reconciliation of Return on Average Tangible Common Equity (non-GAAP)⁽⁷⁾					
Net income available to common stockholders (GAAP)	\$ 116,959	\$ 75,226	\$ 80,108	\$ 59,225	\$ 41,083
Average common stockholders' equity (GAAP)	\$ 1,177,346	\$ 871,683	\$ 678,989	\$ 496,877	\$ 386,844
Less average goodwill	340,352	184,554	125,724	56,781	35,688
Less average other intangibles, net	46,206	30,109	24,553	14,153	10,022
Average tangible common equity (non-GAAP)	\$ 790,788	\$ 657,020	\$ 528,712	\$ 425,943	\$ 341,134
Annualized return on average common equity (GAAP)	9.93%	8.63%	11.80%	11.92%	10.62%
Annualized return on average tangible common equity (non-GAAP)	14.79%	11.45%	15.15%	13.90%	12.04%

SELECTED FINANCIAL DATA (Continued)

(Dollars in thousands, except per share data)

	As of and For the Years Ended December 31,				
	2018	2017	2016	2015	2014
Reconciliation of Annualized Net Interest Margin, Fully Tax-Equivalent (non-GAAP)⁽⁸⁾					
Net Interest Income (GAAP)	\$ 413,954	\$ 330,308	\$ 294,666	\$ 233,998	\$ 203,073
Plus tax-equivalent adjustment ⁽⁹⁾	6,228	15,139	12,919	10,216	10,298
Net interest income - tax-equivalent (non-GAAP)	<u>\$ 420,182</u>	<u>\$ 345,447</u>	<u>\$ 307,585</u>	<u>\$ 244,214</u>	<u>\$ 213,371</u>
Average earning assets	<u>\$ 9,718,106</u>	<u>\$ 8,181,914</u>	<u>\$ 7,455,217</u>	<u>\$ 6,152,090</u>	<u>\$ 5,384,275</u>
Net interest margin (GAAP)	4.26%	4.04%	3.95%	3.80%	3.77%
Net interest margin, fully tax-equivalent (non-GAAP)	4.32%	4.22%	4.13%	3.97%	3.96%
Reconciliation of Non-GAAP Measure-Efficiency Ratio⁽¹⁰⁾					
Net Interest Income (GAAP)	\$ 413,954	\$ 330,308	\$ 294,666	\$ 233,998	\$ 203,073
Plus tax-equivalent adjustment ⁽⁸⁾	6,228	15,139	12,919	10,216	10,298
Net interest income - tax-equivalent (non-GAAP)	420,182	345,447	307,585	244,214	213,371
Noninterest income	109,160	102,022	113,601	110,685	82,224
Securities gains, net	(1,085)	(6,973)	(11,340)	(13,143)	(3,668)
Unrealized gain on equity securities, net	(212)	—	—	—	—
Impairment loss on securities	—	—	—	769	—
Gain on extinguishment of debt	—	(1,280)	—	—	—
Adjusted income	<u>\$ 528,045</u>	<u>\$ 439,216</u>	<u>\$ 409,846</u>	<u>\$ 342,525</u>	<u>\$ 291,927</u>
Total noninterest expenses	\$ 353,888	\$ 297,675	\$ 279,668	\$ 251,046	\$ 215,800
Less:					
Core deposit intangibles and customer relationship intangibles amortization	9,355	6,077	5,630	2,978	2,223
Partnership investment in tax credit projects	4,233	1,860	1,051	4,357	2,436
Loss on sales/valuations of assets, net	2,208	2,475	1,478	6,821	2,105
Restructuring expenses	2,564	—	—	—	—
Adjusted noninterest expenses	<u>\$ 335,528</u>	<u>\$ 287,263</u>	<u>\$ 271,509</u>	<u>\$ 236,890</u>	<u>\$ 209,036</u>
Efficiency ratio, fully tax-equivalent (non-GAAP)	63.54%	65.40%	66.25%	69.16%	71.61%

(1) Excludes loans held for sale.

(2) Excludes deposits held for sale.

(3) Refer to the "Reconciliation of Return on Average Tangible Common Equity (non-GAAP)" table.

(4) Refer to the "Reconciliation of Annualized Net Interest Margin, Fully Tax-Equivalent (non-GAAP)" table.

(5) Refer to the "Reconciliation of Non-GAAP Measure-Efficiency Ratio (non-GAAP)" table.

(6) Prior to the adoption of Basel III requirements effective January 1, 2015, the common equity Tier 1 capital ratio was not a capital standard required by bank regulatory agencies.

(7) Return on average tangible common equity is net income available to common stockholders divided by average common stockholders' equity less goodwill and core deposit intangibles and customer relationship intangibles, net. This financial measure is included as it is considered to be a critical metric to analyze and evaluate the financial condition and capital strength of Heartland. This measure should not be considered a substitute for operating results determined in accordance with GAAP.

(8) Annualized net interest margin, fully tax-equivalent is a non-GAAP measure, which adjusts net interest income for the tax-favored status of certain loans and securities. Management believes this measure enhances the comparability of net interest income arising from taxable and tax-exempt sources. This measure should not be considered a substitute for operating results determined in accordance with GAAP.

(9) Computed on a tax-equivalent basis using an effective tax rate of 21% beginning January 1, 2018, and 35% for all prior periods.

(10) Efficiency ratio, fully tax-equivalent, expresses noninterest expenses as a percentage of fully tax-equivalent net interest income and noninterest income. This efficiency ratio is presented on a tax-equivalent basis, which adjusts net interest income and noninterest expenses for the tax favored status of certain loans, securities and tax credit projects. Management believes the presentation of this non-GAAP measure provides supplemental useful information for proper understanding of the financial results of Heartland as it enhances the comparability of income and expenses arising from taxable and nontaxable sources and excludes specific items, as noted in the table. This measure should not be considered a substitute for operating results determined in accordance with GAAP.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Management's discussion and analysis of the consolidated financial condition and results of operations of Heartland as of the dates and for the periods indicated is presented below. This discussion should be read in conjunction with the Selected Financial Data, the consolidated financial statements and the notes thereto and other financial data appearing elsewhere in this Annual Report on Form 10-K. The consolidated financial statements include the accounts of Heartland and its subsidiaries, all of which are wholly-owned.

CRITICAL ACCOUNTING POLICIES

The preparation of financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, income and expenses. These estimates are based upon historical experience and on various other assumptions that management believes are reasonable under the circumstances. Among other things, the estimates form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. Refer to Note 1, "Summary of Significant Accounting Policies," for further discussion on Heartland's critical accounting policies.

The estimates and judgments that management believes have the most effect on Heartland's reported financial position and results of operations are as follows:

Allowance For Loan Losses

The process utilized by Heartland to estimate the allowance for loan losses is considered a critical accounting policy for Heartland. The allowance for loan losses represents management's estimate of identified and unidentified probable losses in the existing loan portfolio. Therefore, the accuracy of this estimate could have a material impact on Heartland's earnings. The allowance for loan losses is determined using factors that include the overall composition of the loan portfolio, general economic conditions, types of loans, loan collateral values, past loss experience, loan delinquencies and probable losses from identified substandard and doubtful credits.

Our allowance for loan losses methodology includes the establishment of a dual risk rating system, which allows the utilization of a probability of default and loss given default for commercial and agricultural loans in the calculation of the allowance for loan losses. Heartland's allowance for loan losses methodology also utilizes a loss emergence period, which represents the average amount of time from the point that a loss is incurred to the point at which the loss is confirmed. The loss rates used in the allowance calculation are periodically re-evaluated and adjusted to reflect changes in historical loss levels or other risks. In addition to the allowance methodology, our software also has the ability to perform stress testing and migration analysis on various portfolio segments.

For loans individually evaluated and determined to be impaired, the allowance is allocated on a loan-by-loan basis as deemed necessary. These estimates reflect consideration of one of the following impairment measurement methods as of the evaluation date:

- the present value of expected future cash flows discounted at the loan's effective interest rate; or
- the fair value of the collateral if the loan is collateral dependent.

All other loans, including individually evaluated loans determined not to be impaired, are segmented into groups of loans with similar risk characteristics for evaluation and analysis. Loss rates for various collateral types of commercial and agricultural loans are based upon the realizable value historically received on the various types of collateral. For smaller commercial and agricultural loans, residential real estate loans and consumer loans, a historic loss rate is established for each group of loans based upon a twelve-quarter weighted moving average loss rate. The appropriateness of the allowance for loan losses is monitored on an ongoing basis by the loan review staff, senior management and the boards of directors of each Bank.

There can be no assurances that the allowance for loan losses will be adequate to cover all probable loan losses, but management believes that the allowance for loan losses was appropriate at December 31, 2018. While management uses available information to provide for loan losses, the ultimate collectability of a substantial portion of the loan portfolio and the need for future additions to the allowance will be based on changes in economic conditions. Should the economic climate deteriorate, borrowers may experience difficulty, and the level of nonperforming loans, charge-offs, and delinquencies could rise and require further increases

in the provision for loan losses. In addition, various regulatory agencies, as an integral part of their examination process, periodically review the allowance for loan losses carried by the Banks. Such agencies may require us to make additional provisions to the allowance based upon their judgment about information available to them at the time of their examinations.

Business Combinations, Goodwill and Core Deposit Intangibles

We record all assets and liabilities purchased in an acquisition, including intangibles, at fair value. Determining the fair value of assets and liabilities acquired often involves estimates based on third-party valuations, such as appraisals, or internal valuations based on discounted cash flow analyses or other valuation techniques that may include the use of estimates. Goodwill and indefinite-lived assets are not amortized but are subject, at a minimum, to annual tests for impairment. In certain situations, interim impairment tests may be required if events occur or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Core deposit intangibles assets are amortized over their estimated useful lives using straight-line and accelerated methods and are subject to impairment if events or circumstances indicate a possible inability to realize the carrying amount.

The initial recognition of loans, goodwill and core deposit intangibles and subsequent impairment analysis require us to make subjective judgments concerning estimates of how the acquired assets will perform in the future using valuation methods, including discounted cash flow analyses. Additionally, estimated cash flows may extend beyond five years and, by their nature, are difficult to determine over an extended timeframe. Events and factors that may significantly affect the estimates include, among others, competitive forces, customer behaviors, changes in revenue growth trends, cost structures, technology, changes in discount rates and market conditions. In determining the reasonableness of cash flow estimates, Heartland reviews historical performance of the underlying assets or similar assets in an effort to assess and validate assumptions utilized in its estimates.

OVERVIEW

Heartland is a multi-bank holding company providing banking, mortgage, wealth management, investments, insurance and consumer finance services to individuals and businesses. As of the date of this Annual Report on Form 10-K, Heartland has eleven banking subsidiaries with 119 locations in Iowa, Illinois, Wisconsin, New Mexico, Arizona, Montana, Colorado, Minnesota, Kansas, Missouri, Texas and California. Our primary objectives are to increase profitability and diversify our market area and asset base by expanding through acquisitions and to grow organically by increasing our customer base in the markets we serve.

Our results of operations depend primarily on net interest income, which is the difference between interest income from interest earning assets and interest expense on interest bearing liabilities. Noninterest income, which includes service charges and fees, loan servicing income, trust income, brokerage and insurance commissions, securities gains and gains on sale of loans held for sale and income on bank owned life insurance also affects our results of operations. Our principal operating expenses, aside from interest expense, consist of the provision for loan losses, salaries and employee benefits, occupancy and equipment costs, professional fees, FDIC insurance premiums, advertising, core deposit intangibles and customer relationship intangibles amortization and other real estate and loan collection expenses.

2018 Overview

Net income recorded for 2018 was \$117.0 million compared to \$75.3 million recorded in 2017, an increase of \$41.7 million or 55%. Net income available to common stockholders was \$117.0 million, or \$3.52 per diluted common share, for the year ended December 31, 2018, compared to \$75.2 million, or \$2.65 per diluted common share, earned during the prior year. Return on average common equity was 9.93% and return on average assets was 1.09% for 2018, compared to 8.63% and 0.83%, respectively, for 2017.

The financial impact of the following transactions are included in the results of operations for the year ended December 31, 2018, but not in the results of operations for the year ended December 31, 2017:

- On February 23, 2018, Heartland completed the acquisition of Signature Bancshares, Inc., parent company of Signature Bank, headquartered in Minnetonka, Minnesota. Under the terms of the definitive merger agreement, Heartland acquired Signature Bancshares, Inc. in a transaction valued at approximately \$61.4 million, of which \$7.8 million was cash, and the remainder was settled by delivery of 1,000,843 shares of Heartland common stock. Simultaneous with the close, Signature Bank merged into Heartland's wholly-owned Minnesota Bank & Trust subsidiary, and the combined entity operates under the Minnesota Bank & Trust brand name. The transaction included, at fair value, total assets of \$427.1 million, including \$324.5 million of gross loans held to maturity, and deposits of \$357.3 million. On the closing date, Heartland provided Signature Bancshares, Inc. the funds necessary to repay outstanding subordinated debt of \$5.9 million.

- On May 18, 2018, Heartland completed the acquisition of Lubbock, Texas based First Bank Lubbock Bancshares, Inc., parent company of First Bank & Trust, and PrimeWest Mortgage Corporation, which is a wholly-owned subsidiary of First Bank & Trust. Under the terms of the definitive merger agreement, Heartland acquired First Bank Lubbock Bancshares, Inc. in a transaction valued at approximately \$189.9 million, of which \$5.5 million was cash, and the remainder was settled by delivery of 3,350,664 shares of Heartland common stock. On the closing date, in addition to this merger consideration, Heartland provided First Bank Lubbock Bancshares, Inc. the funds necessary to repay outstanding debt of \$3.9 million, and Heartland assumed \$8.2 million of trust preferred securities at fair value. Immediately after the close of the transaction, Heartland paid \$13.3 million to the holders of First Bank Lubbock Bancshares, Inc.'s stock appreciation rights. The transaction included, at fair value, total assets of \$1.12 billion, including \$681.1 million of gross loans held to maturity, and deposits of \$893.8 million. Upon closing of the transaction, First Bank & Trust became a wholly-owned subsidiary of Heartland and continues to operate under its current name and management team as Heartland's eleventh state-chartered bank.
- In 2018, Heartland recorded \$2.6 million of restructuring expenses related to its legacy retail mortgage lending operation. The restructuring projects were primarily related to fully outsourcing all aspects of its legacy mortgage lending business and included a workforce reduction of approximately 100 employees and the discontinuation of several information systems. Because of the significant reduction in infrastructure and employees, retail mortgage lending is no longer considered a separate business segment as of January 1, 2018. Heartland has partnered with third-party providers to offer residential mortgage loans to customers in many of its markets. PrimeWest Mortgage Corporation continues to serve customers in Texas and has expanded to serve customers in Heartland's Southwestern markets.
- During 2018, Heartland expanded its ongoing branch optimization process, which resulted in the closure of a branch at Dubuque Bank and Trust Company, Arizona Bank & Trust, Rocky Mountain Bank and Citywide Banks. Additionally, Heartland entered into agreements to sell two branches at Wisconsin Bank & Trust, two branches at Illinois Bank & Trust, and one branch at Citywide Banks. The sales are expected to close in the first half of 2019.
- During the fourth quarter of 2018, Heartland decided to exit the consumer finance business and entered into an agreement to sell the loan portfolios of its consumer finance subsidiaries, Citizens Finance Co. and Citizens Finance of Illinois Co. (collectively, "Citizens"). The loan portfolios had a fair value of \$67.2 million and were classified as held for sale as of December 31, 2018. The transaction closed on January 11, 2019, and all of the Citizens' locations closed in February 2019.

The pending branch sales and the sale of the Citizens portfolios resulted in the reclassification of \$96.0 million of loans and \$106.4 million of deposits as held for sale as of December 31, 2018.

Total assets of Heartland were \$11.41 billion at December 31, 2018, an increase of \$1.60 billion or 16% from \$9.81 billion at year-end 2017. Included in this increase, at fair value, were \$427.1 million of assets acquired in the Signature Bancshares, Inc. transaction and \$1.12 billion of assets acquired in the First Bank Lubbock Bancshares, Inc. transaction. Exclusive of these transactions, total assets increased \$52.8 million or 1% since December 31, 2017. Securities represented 24% of Heartland's total assets at December 31, 2018, compared to 25% at year-end 2017.

Total loans held to maturity were \$7.41 billion at December 31, 2018, compared to \$6.39 billion at year-end 2017, an increase of \$1.02 billion or 16%. Excluding \$96.0 million of loans that were classified as held for sale in conjunction with the pending branch sales and the Citizens transaction and \$1.01 billion of loans acquired in 2018, total loans held to maturity increased \$106.7 million or 2% since year-end 2017.

Total deposits were \$9.40 billion as of December 31, 2018, compared to \$8.15 billion at year-end 2017, an increase of \$1.25 billion or 15%. This increase included \$1.25 billion of deposits, at fair value, acquired in the Signature Bancshares, Inc. and First Bank Lubbock Bancshares, Inc. transactions. As of December 31, 2018, Heartland had \$106.4 million of deposits classified as held for sale in conjunction with the pending branch sales. Exclusive of these transactions, total deposits increased \$104.8 million or 1% since year-end 2017.

Common stockholders' equity was \$1.33 billion at December 31, 2018, compared to \$990.5 million at year-end 2017. Book value per common share was \$38.44 at December 31, 2018, compared to \$33.07 at year-end 2017. Heartland's unrealized gains and losses on securities available for sale, net of applicable taxes, were at an unrealized loss of \$32.5 million at December 31, 2018, compared to an unrealized loss of \$24.3 million at December 31, 2017.

2017 Overview

Net income recorded for 2017 was \$75.3 million compared to \$80.3 million recorded in 2016, a decrease of \$5.1 million or 6%. Net income available to common stockholders was \$75.2 million, or \$2.65 per diluted common share, for the year ended

December 31, 2017, compared to \$80.1 million, or \$3.22 per diluted common share, earned during 2016. Return on average common equity was 8.63% and return on average assets was 0.83% for 2017, compared to 11.80% and 0.98%, respectively, for 2016.

In response to the enactment of the Tax Cuts and Jobs Act on December 22, 2017, which reduced the corporate federal tax rate from a graduated maximum 35% to a flat 21%, Heartland recorded a \$10.4 million non-cash charge to income tax expense to adjust the value of its deferred tax assets and liabilities. Excluding this charge to income tax expense, net income available to common stockholders for 2017 was \$85.6 million or \$3.01 per diluted common share.

On July 7, 2017, Heartland completed the acquisition of Citywide Banks of Colorado, Inc., parent company of Citywide Banks, headquartered in Aurora, Colorado. Simultaneous with the close, Citywide Banks merged into Heartland's Centennial Bank and Trust subsidiary. The aggregate consideration was approximately \$211.2 million, of which \$58.6 million was cash, and the remainder was settled by delivery of 3,216,161 shares of Heartland common stock. The combined entity operates as Citywide Banks. As of the close date, Citywide Banks of Colorado, Inc. had, at fair value, total assets of \$1.49 billion, including \$985.4 million in net loans outstanding, and \$1.21 billion of deposits. The systems conversion for this transaction occurred on October 13, 2017.

On February 28, 2017, Heartland completed the acquisition of Founders Bancorp, parent company of Founders Community Bank, based in San Luis Obispo, California. Based on Heartland's closing common stock price of \$49.55 per share as of February 28, 2017, the aggregate consideration was \$31.0 million, with 30% of the consideration paid in cash and 70% by delivery of Heartland common stock. Simultaneous with the closing of the transaction, Founders Community Bank merged into Heartland's Premier Valley Bank subsidiary. As of the close date, Founders Bancorp had, at fair value, total assets of \$213.9 million, total loans of \$96.4 million and total deposits of \$181.5 million. The systems conversion for this transaction occurred two weeks after the closing.

Total assets were \$9.81 billion at December 31, 2017, an increase of \$1.56 billion or 19% since year-end 2016. Included in this increase, at fair value, were \$213.9 million of assets acquired in the Founders Bancorp transaction and \$1.49 billion of assets acquired in the Citywide Banks of Colorado, Inc. transaction. Exclusive of these transactions, total assets decreased \$144.0 million or 2%. Securities represented 25% of total assets at December 31, 2017, compared to 26% at year-end 2016.

Total loans held to maturity were \$6.39 billion at December 31, 2017, compared to \$5.35 billion at year-end 2016, an increase of \$1.04 billion or 19%. This increase included \$1.08 billion of total loans held to maturity, at fair value, acquired in the Founders Bancorp and Citywide Banks of Colorado, Inc. transactions. Exclusive of these transactions, total loans held to maturity decreased \$42.1 million or 1% during 2017.

Total deposits were \$8.15 billion as of December 31, 2017, compared to \$6.85 billion at year-end 2016, an increase of \$1.30 billion or 19%. This increase included \$1.39 billion of deposits, at fair value, acquired in the Founders Bancorp and Citywide Banks of Colorado, Inc. transactions. Exclusive of these transactions, total deposits decreased \$92.0 million or 1% during 2017.

RECENT DEVELOPMENTS

Regulatory Developments

Heartland's total assets exceeded \$10.0 billion as of June 30, 2018. Various federal banking laws and regulations, including rules adopted by the Federal Reserve pursuant to the requirements of the Dodd-Frank Act, impose heightened requirements on certain large banks and bank holding companies. Under the Dodd-Frank Act as originally adopted, most of these rules applied primarily to bank holding companies with at least \$50 billion in total consolidated assets, but certain rules also apply to banks and bank holding companies with at least \$10 billion in total consolidated assets. For example, the Durbin Amendment, which is expected to be effective for Heartland on July 1, 2019, restricts interchange fees to those which are "reasonable and proportionate" for certain debit card issuers and limits the ability of networks and issuers to restrict debit card transaction routing. In the final rules, interchange fees for debit card transactions were capped at \$0.21 plus five basis points in order to be eligible for a safe harbor such that the fee is conclusively determined to be reasonable and proportionate. Based on calculations using 2018 debit card volume, the Durbin Amendment would reduce of Heartland's debit card income by approximately \$6.0 million annually.

The Economic Growth Act represents modest reform to the regulation of the financial services industry primarily through certain amendments of the Dodd-Frank Act, in part through increases in the dollar threshold at which certain requirements apply. As amended by the Economic Growth Act, the threshold for required stress testing under the Dodd-Frank Act increased from \$10 billion in total consolidated assets to \$100 billion in total consolidated assets. In addition, the threshold for requiring a dedicated board risk committee under the Dodd-Frank Act increased from \$10 billion in total consolidated assets to \$50 billion in total consolidated assets. The Economic Growth Act included additional regulatory relief, much of which benefited banks with less

than \$10 billion in consolidated assets. Certain of the provisions amended by the Economic Growth Act took effect immediately, while others require that the agencies jointly amend their rulemakings. Of those provisions that require further regulatory action, most of those applicable to bank holding companies with less than \$100 billion in total consolidated assets have become effective through the adoption of interim final rules and regulatory policy statements. The federal banking agencies indicated through interagency guidance that the capital planning and risk management practices of institutions with total assets less than \$100 billion would continue to be reviewed through the regular supervisory process, which may offset the impact of the changes regarding stress testing and risk management from the Economic Growth Act.

Other provisions of the Dodd-Frank Act, such as the Durbin Amendment, which restricts interchange fees, remain in place.

Management has been in the process of preparing for the requirements under the Dodd-Frank Act over the past several quarters, including additions to staff, enhancing risk management processes and investing to upgrade information systems and technology. However, the potential impacts of the Economic Growth Act are currently under evaluation by management.

For more information on the regulatory developments impacting Heartland's business, see the section entitled, "Supervision and Regulation" in this Annual Report on Form 10-K.

Blue Valley Ban Corp. Merger Agreement

On January 16, 2019, Heartland entered into a definitive merger agreement to acquire Blue Valley Ban Corp., and its wholly-owned subsidiary, Bank of Blue Valley, headquartered in Overland Park, Kansas. As of the announcement date, the transaction, in which all of the issued and outstanding shares of the Blue Valley Ban Corp. stock will be exchanged for shares of Heartland common stock, was valued at approximately \$93.9 million. Simultaneous with the closing of the transaction, Bank of Blue Valley will merge into Heartland's Kansas-based subsidiary, Morrill & Janes Bank and Trust Company, and the combined entity will operate as Bank of Blue Valley. The amount of the merger consideration is subject to fluctuations in the price of Heartland common stock and certain potential adjustments, and the transaction is subject to customary closing conditions. The transaction is expected to close in the second quarter of 2019 with a systems conversion planned for the third quarter of 2019. As of December 31, 2018, Bank of Blue Valley had total assets of approximately \$715.1 million, which included approximately \$561.3 million of gross loans outstanding, and approximately \$562.6 million of deposits. Because the merger agreement was signed on January 16, 2019, and the transaction is expected to close in the second quarter of 2019, the transaction has no impact on Heartland's 2018 consolidated financial statements.

Sale of First Community Bank branches

On January 23, 2019, Heartland's Iowa-based subsidiary, Dubuque Bank and Trust Company, announced the sale of two branch locations, which operate as First Community Bank, in Keokuk, Iowa. The loans and deposits associated with this transaction totaled approximately \$13.7 million and \$82.1 million, respectively, as of the announcement date.

RESULTS OF OPERATIONS

Net Interest Income

Net interest income is the difference between interest income earned on earning assets and interest expense paid on interest bearing liabilities. As such, net interest income is affected by changes in the volume and yields on earning assets and the volume and rates paid on interest bearing liabilities. Net interest margin is the ratio of net interest income to average earning assets.

Net interest margin, expressed as a percentage of average earning assets, was 4.26% (4.32% on a fully tax-equivalent basis) during 2018, compared to 4.04% (4.22% on a fully tax-equivalent basis) during 2017 and 3.95% (4.13% on a fully tax-equivalent basis) during 2016. The Tax Cuts and Jobs Act that passed on December 22, 2017, reduced the corporate federal tax rate from a graduated maximum 35% to a flat 21%. With the new 21% corporate federal tax rate, the conversion factor to a fully tax-equivalent basis decreased in 2018. The decline had no impact on net interest income but caused net interest margin on a fully tax-equivalent basis to decrease.

Our success in maintaining net interest margin has been the result of an increase in average earning assets and a favorable deposit mix. Also contributing to our ability to maintain net interest margin has been the amortization of purchase accounting discounts associated with acquisitions completed since 2015. For the years ended December 31, 2018, 2017 and 2016, our net interest margin included 22 basis points, 18 basis points and 15 basis points, respectively, of purchase accounting discount amortization. The sale of the Citizens' loan portfolios is expected to negatively impact net interest margin by approximately 10 to 15 basis points in future years.

See "Analysis of Average Balances, Tax-Equivalent Yields and Rates" for a description of our use of net interest income on a fully tax-equivalent basis, which is not defined by GAAP, and a reconciliation of annualized net interest margin on a fully tax-equivalent basis to GAAP.

Interest income increased \$102.2 million or 28% to \$465.8 million in 2018 and increased \$37.2 million or 11% from \$363.7 million in 2017. The tax-equivalent adjustments for income taxes saved on the interest earned on nontaxable securities and loans were \$6.2 million in 2018 and \$15.1 million in 2017. With these adjustments, interest income on a tax-equivalent basis was \$472.0 million during 2018, an increase of \$93.3 million or 25%, and \$378.8 million during 2017, an increase of \$39.4 million or 12% from \$339.4 million in 2016.

The average interest rate earned on total average earning assets was 4.86% during 2018 compared to 4.63% during 2017 and 4.55% during 2016. The overall tax-equivalent yield earned on the securities portfolio was 2.95% in 2018 compared to 3.06% in 2017 and 2.90% in 2016, a decrease of 11 basis points in 2018 and an increase of 16 basis points in 2017. The overall tax-equivalent yield earned on the loan portfolio was 5.60% in 2018 compared to 5.33% in 2017 and 5.20% in 2016, an increase of 27 basis points in 2018 and an increase of 13 basis points in 2017. The percentage of average loans, which are typically the highest yielding asset, to total average earning assets was 73% during 2018 compared to 71% during 2017 and 73% during 2016.

The increases in interest income during both 2018 and 2017 were primarily due to growth in average earning assets, which totaled \$9.72 billion during 2018 compared to \$8.18 billion during 2017 and \$7.46 billion during 2016, and recent increases in market interest rates. The increase in average earning assets was \$1.54 billion or 19% for 2018 and \$726.7 million or 10% for 2017. A majority of the growth in average earning assets during both years was attributable to the acquisitions completed during 2018 and 2017.

Interest expense increased \$18.5 million or 56% during 2018 to \$51.9 million compared to \$33.4 million during 2017 and increased \$1.5 million or 5% during 2017 from \$31.8 million during 2016. The average interest rate paid on Heartland's interest bearing deposits and borrowings was 0.83% in 2018 compared to 0.61% in 2017 and 0.60% in 2016. Average savings balances, as a percentage of total average interest bearing deposits, was 82% during 2018 and 2017 compared to 79% during 2016. The average interest rate paid on savings deposits was 0.53% during 2018 compared to 0.27% during 2017 and 0.22% during 2016. The increase in 2018 in the average rate paid on interest bearing deposits is primarily attributable to recent market interest rate increases.

Net interest income totaled \$414.0 million during 2018, an increase of \$83.6 million or 25% from the \$330.3 million recorded during 2017. Net interest income increased \$35.6 million or 12% during 2017 from the \$294.7 million recorded during 2016. After the tax-equivalent adjustment discussed above, net interest income on a fully tax-equivalent basis increased \$74.7 million or 22% during 2018 and \$37.9 million or 12% during 2017. Management believes net interest margin in dollars will continue to increase as the amount of earning assets grows.

We attempt to manage our balance sheet to minimize the effect that a change in interest rates has on our net interest margin. We plan to continue to work toward improving both our earning assets and funding mix through targeted organic growth strategies, which we believe will result in additional net interest income. We believe our net interest income simulations reflect a well-balanced and manageable interest rate posture. Item 7A of this Annual Report on Form 10-K contains additional information about the results of our most recent net interest income simulations. Note 12, "Derivative Financial Instruments" to the consolidated financial statements contains a detailed discussion of the derivative instruments we have utilized to manage interest rate risk.

The following table provides certain information relating to our average consolidated balance sheets and reflects the yield on average earning assets and the cost of average interest bearing liabilities for the years indicated, in thousands. Dividing income or expense by the average balance of assets or liabilities derives such yields and costs. Average balances are derived from daily balances, and nonaccrual loans and loans held for sale are included in each respective loan category. Assets with tax favorable treatment are evaluated on a tax-equivalent basis assuming a federal income tax rate of 21% beginning January 1, 2018, and 35% for all prior periods. Tax favorable assets generally have lower contractual pre-tax yields than fully taxable assets. A tax-equivalent yield is calculated by adding the tax savings to the interest earned on tax favorable assets and dividing by the average balance of the tax favorable assets. Deposits held for sale are included in each respective deposit category.

ANALYSIS OF AVERAGE BALANCES, TAX EQUIVALENT YIELDS AND RATES⁽¹⁾

	For the Year Ended December 31,								
	2018			2017			2016		
	Average Balance	Interest	Rate	Average Balance	Interest	Rate	Average Balance	Interest	Rate
Earning Assets									
Securities:									
Taxable	\$ 1,999,321	\$ 54,131	2.71 %	\$ 1,629,936	\$ 38,365	2.35 %	\$ 1,466,062	\$ 32,858	2.24 %
Nontaxable ⁽¹⁾	439,894	17,873	4.06	617,267	30,305	4.91	465,178	23,208	4.99
Total securities	2,439,215	72,004	2.95	2,247,203	68,670	3.06	1,931,240	56,066	2.90
Interest bearing deposits with the Federal Reserve Bank and other banks and other short-term investments	197,562	3,698	1.87	136,555	1,547	1.13	78,503	396	0.50
Federal funds sold	430	—	—	5,932	42	0.71	9,464	12	0.13
Loans: ⁽²⁾									
Commercial and commercial real estate ⁽¹⁾	5,401,683	289,379	5.36	4,256,158	211,316	4.96	3,846,285	190,101	4.94
Residential mortgage	692,310	32,047	4.63	655,515	30,242	4.61	738,634	30,168	4.08
Agricultural and agricultural real estate ⁽¹⁾	549,346	28,331	5.16	498,032	23,651	4.75	480,221	22,576	4.70
Consumer	496,900	37,250	7.50	437,356	35,194	8.05	422,972	32,636	7.72
Fees on loans	9,339	—	—	8,135	—	—	7,443	—	—
Less: allowance for loan losses	(59,340)	—	—	(54,837)	—	—	(52,102)	—	—
Net loans	7,080,899	396,346	5.60	5,792,224	308,538	5.33	5,436,010	282,924	5.20
Total earning assets	9,718,106	472,048	4.86 %	8,181,914	378,797	4.63 %	7,455,217	339,398	4.55 %
Nonearning Assets	1,054,191			827,711			717,359		
Total Assets	\$ 10,772,297			\$ 9,009,625			\$ 8,172,576		
Interest Bearing Liabilities⁽³⁾									
Savings	\$ 4,779,977	\$ 25,123	0.53 %	\$ 4,044,032	\$ 11,107	0.27 %	\$ 3,680,535	\$ 8,000	0.22 %
Time, \$100,000 and over	499,409	4,789	0.96	377,090	3,016	0.80	424,802	3,178	0.75
Other time deposits	559,360	5,755	1.03	525,165	4,156	0.79	577,908	4,761	0.82
Short-term borrowings	142,295	1,696	1.19	190,040	678	0.36	298,734	1,202	0.40
Other borrowings	272,545	14,503	5.32	290,398	14,393	4.96	284,540	14,672	5.16
Total interest bearing liabilities	6,253,586	51,866	0.83 %	5,426,725	33,350	0.61 %	5,266,519	31,813	0.60 %
Noninterest Bearing Liabilities⁽³⁾									
Noninterest bearing deposits	3,265,532			2,643,945			2,130,536		
Accrued interest and other liabilities	75,224			66,248			78,028		
Total noninterest bearing liabilities	3,340,756			2,710,193			2,208,564		
Stockholders' Equity	1,177,955			872,707			697,493		
Total Liabilities and Stockholders' Equity	\$ 10,772,297			\$ 9,009,625			\$ 8,172,576		
Net interest income, fully tax-equivalent (non-GAAP)⁽¹⁾		\$ 420,182			\$ 345,447			\$ 307,585	
Net interest spread⁽¹⁾			4.03%			4.02%			3.95%
Net interest income, fully tax-equivalent (non-GAAP) to total earning assets⁽⁴⁾			4.32%			4.22%			4.13%
Interest bearing liabilities to earning assets	64.35%			66.33%			70.64%		
Reconciliation of net interest margin, fully tax-equivalent (non-GAAP)⁽⁵⁾									
Net interest income (GAAP)		\$ 413,954			\$ 330,308			\$ 294,666	
Plus tax-equivalent adjustment ⁽¹⁾		6,228			15,139			12,919	
Net interest income, fully tax-equivalent (non-GAAP)		\$ 420,182			\$ 345,447			\$ 307,585	
Average earning assets	\$ 9,718,106			\$ 8,181,914			\$ 7,455,217		
Net interest margin (GAAP)			4.26 %			4.04 %			3.95 %
Net interest margin, fully tax-equivalent (non-GAAP)			4.32 %			4.22 %			4.13 %

(1) Computed on a tax-equivalent basis using an effective tax rate of 21% beginning January 1, 2018, and 35% for all prior periods.

(2) Nonaccrual loans and loans held for sale are included in the average loans outstanding.

(3) Includes deposits held for sale.

(4) Net interest margin, fully tax-equivalent is a non-GAAP measure, which adjusts net interest income for the tax-favored status of certain loans and securities. Management believes this measure enhances the comparability of net interest income arising from taxable and tax exempt sources. This measure should not be considered a substitute for operating results determined in accordance with GAAP.

The following table presents the dollar amount of changes in interest income and interest expense for the major components of interest earning assets and interest bearing liabilities, in thousands. It quantifies the changes in interest income and interest expense related to changes in the average outstanding balances (volume) and those changes caused by fluctuating interest rates. For each category of interest earning assets and interest bearing liabilities, information is provided on changes attributable to (i) changes in volume, calculated by multiplying the difference between the average balance for the current period and the average balance for the prior period by the rate for the prior period, and (ii) changes in rate, calculated by multiplying the difference between the rate for the current period and the rate for the prior period by the average balance for the prior period. The unallocated change has been allocated pro rata to volume and rate variances.

ANALYSIS OF CHANGES IN NET INTEREST INCOME⁽¹⁾

	For the Years Ended December 31,					
	2018 Compared to 2017			2017 Compared to 2016		
	Change Due to			Change Due to		
	Volume	Rate	Net	Volume	Rate	Net
EARNING ASSETS / INTEREST INCOME						
Investment securities:						
Taxable	\$ 9,480	\$ 6,286	\$ 15,766	\$ 3,800	\$ 1,707	\$ 5,507
Nontaxable ⁽¹⁾	(7,770)	(4,662)	(12,432)	7,472	(375)	7,097
Interest bearing deposits	874	1,277	2,151	429	722	1,151
Federal funds sold	(20)	(22)	(42)	(6)	36	30
Loans ⁽¹⁾⁽²⁾	71,484	16,324	87,808	18,860	6,754	25,614
TOTAL EARNING ASSETS	74,048	19,203	93,251	30,555	8,844	39,399
LIABILITIES / INTEREST EXPENSE						
Interest bearing deposits ⁽³⁾ :						
Savings	2,328	11,688	14,016	847	2,260	3,107
Time, \$100,000 and over	1,099	674	1,773	(372)	210	(162)
Other time deposits	285	1,314	1,599	(423)	(182)	(605)
Short-term borrowings	(209)	1,227	1,018	(400)	(124)	(524)
Other borrowings	(914)	1,024	110	298	(577)	(279)
TOTAL INTEREST BEARING LIABILITIES	2,589	15,927	18,516	(50)	1,587	1,537
NET INTEREST INCOME	\$ 71,459	\$ 3,276	\$ 74,735	\$ 30,605	\$ 7,257	\$ 37,862

(1) Computed on a tax-equivalent basis using an effective tax rate of 21% beginning January 1, 2018, and 35% for all prior periods.

(2) Nonaccrual loans and loans held for sale are included in average loans outstanding.

(3) Includes deposits held for sale.

Provision For Loan Losses

A provision for loan losses is charged to expense to provide, in Heartland management's opinion, an appropriate allowance for loan losses. In determining that the allowance for loan losses is appropriate, management uses factors that include the overall composition of the loan portfolio, general economic conditions, types of loans, loan collateral values, past loss experience, loan delinquencies, substandard credits and doubtful credits. Given the size of Heartland's loan portfolio, the level of organic loan growth, acquired loans that move out of the purchase accounting pool, changes in credit quality and the variability that can occur in the factors considered when determining the appropriateness of the allowance for loan losses, Heartland's provision for loan losses will vary from year to year. For additional details on the specific factors considered, refer to the discussion under the captions "Critical Accounting Policies" and "Allowance For Loan Losses" in this Annual Report on Form 10-K. Heartland believes the allowance for loan losses as of December 31, 2018, was at a level commensurate with the overall risk exposure of the loan portfolio. However, if economic conditions should become more unfavorable, certain borrowers may experience difficulty and the level of nonperforming loans, charge-offs and delinquencies could rise and require further increases in the provision for loan losses.

The provision for loan losses was \$24.0 million during 2018 compared to \$15.6 million during 2017 and \$11.7 million during 2016. Loans covered by the allowance totaled \$5.73 billion as of December 31, 2018, compared to \$4.89 billion as of December 31, 2017, and \$4.40 billion as of December 31, 2016.

The provision expense increase of \$8.5 million or 54% during 2018 was impacted by the approximately \$854.3 million increase in the loans covered by the allowance. Additionally, two impaired commercial loans from acquired portfolios totaling \$5.8 million

required provision expense of \$4.0 million. The provision expense recorded in 2017 was significantly impacted by charge-offs related to one agricultural relationship and one commercial relationship, which totaled \$3.1 million. During 2016, a recovery of \$2.3 million was recorded on a previously charged-off loan. There were no similar recoveries recorded in 2018 or 2017.

Provision expense at Citizens Finance Parent Co. totaled \$2.2 million in 2018, \$4.8 million in 2017 and \$4.4 million in 2016. In 2018, Heartland recorded a \$953,000 reduction to provision expense associated with the reclassification of the Citizens' loan portfolios to held for sale.

The allowance for loan losses at December 31, 2018, was 0.84% of loans and 85.27% of nonperforming loans compared to 0.87% of loans and 87.82% of nonperforming loans at December 31, 2017, and 1.02% of loans and 84.37% of nonperforming loans at December 31, 2016.

Noninterest Income

The table below summarizes Heartland's noninterest income for the years indicated, in thousands:

NONINTEREST INCOME

	For the Years Ended December 31,			% Change	
	2018	2017	2016	2018/2017	2017/2016
Service charges and fees	\$ 48,706	\$ 39,183	\$ 31,590	24%	24 %
Loan servicing income	7,292	5,636	4,501	29	25
Trust fees	18,393	15,818	14,845	16	7
Brokerage and insurance commissions	4,513	4,033	3,869	12	4
Securities gains, net	1,085	6,973	11,340	(84)	(39)
Unrealized gain on equity securities, net	212	—	—	100	—
Gains on sale of loans held for sale	21,450	22,251	39,634	(4)	(44)
Valuation allowance on servicing rights	(46)	21	(33)	(319)	164
Income on bank owned life insurance	2,793	2,772	2,275	1	22
Other noninterest income	4,762	5,335	5,580	(11)	(4)
Total Noninterest Income	<u>\$ 109,160</u>	<u>\$ 102,022</u>	<u>\$ 113,601</u>	7%	(10)%

Noninterest income was \$109.2 million in 2018 compared to \$102.0 million in 2017, an increase of \$7.1 million or 7%. This increase is the result of higher service charges and fees and trust fees, the effect of which was partially offset by reduced securities gains, net. During 2017, noninterest income was \$102.0 million compared to \$113.6 million in 2016, a decrease of \$11.6 million or 10%. This decrease reflected lower net gains on sale of loans held for sale and net securities gains, the effect of which was partially offset by higher service charges and fees.

Service Charges and Fees

The following table summarizes the changes in service charges and fees for the years ended indicated, in thousands:

	For the Years Ended December 31,			% Change	
	2018	2017	2016	2018/2017	2017/2016
Service charges and fees on deposit accounts	\$ 11,291	\$ 9,570	\$ 8,314	18%	15%
Overdraft fees	10,796	9,365	8,300	15	13
Customer service fees	327	288	208	14	38
Credit card fee income	11,893	7,968	4,866	49	64
Debit card income	14,396	11,984	9,873	20	21
Other service charges	3	8	29	(63)	(72)
Total service charges and fees	<u>\$ 48,706</u>	<u>\$ 39,183</u>	<u>\$ 31,590</u>	24%	24%

Service charges and fees increased \$9.5 million or 24% from 2017 to 2018 and \$7.6 million or 24% from 2016 to 2017. Service charges on checking and savings accounts totaled \$11.3 million during 2018 compared to \$9.6 million during 2017 and \$8.3 million during 2016. Overdraft fees totaled \$10.8 million during 2018, \$9.4 million during 2017 and \$8.3 million during 2016. Interchange revenue from activity on bank debit cards, along with surcharges on ATM activity, resulted in debit card income of

\$14.4 million during 2018, \$12.0 million during 2017 and \$9.9 million during 2016. These increases are primarily attributable to a larger demand deposit customer base, a portion of which is attributable to acquisitions completed in 2018 and 2017.

Heartland has focused on expanding its card payment solutions for businesses, particularly with its expense management service that provides business customers the ability to more efficiently manage their card-based spending. Fees for these services totaled \$11.9 million in 2018, \$8.0 million in 2017 and \$4.9 million in 2016. Based on estimated calculations using 2018 debit card volume, Heartland estimates the impact of the Durbin Amendment, which Heartland expects to be subject to on July 1, 2019, will reduce debit card income by approximately \$6.0 million on an annualized basis.

Loan Servicing Income

The following tables show the changes in loan servicing income for the years indicated, in thousands:

	For the Years Ended December 31,			% Change	
	2018	2017	2016	2018/2017	2017/2016
Commercial and agricultural loan servicing fees ⁽¹⁾	\$ 3,229	\$ 3,118	\$ 2,846	4%	10%
Residential mortgage servicing fees ⁽²⁾	9,931	11,567	12,147	(14)	(5)
Mortgage servicing rights amortization	(5,868)	(9,049)	(10,492)	(35)	(14)
Total loan servicing income	\$ 7,292	\$ 5,636	\$ 4,501	29%	25%

(1) Includes servicing fees for commercial, commercial real estate, agricultural and agricultural real estate loans and amortization of capitalized commercial servicing rights.

(2) Heartland's mortgage servicing portfolio totaled \$4,095,025, \$3,558,090 and \$4,308,580 as of December 31, 2018, 2017 and 2016, respectively.

Loan servicing income includes the fees collected for the servicing of commercial, agricultural, and mortgage loans, which are dependent upon the aggregate outstanding balance of these loans, rather than quarterly production and sale of these loans. Loan servicing income totaled \$7.3 million for 2018 compared to \$5.6 million for 2017 and \$4.5 million for 2016. Loan servicing income related to the servicing of commercial and agricultural loans totaled \$3.2 million during 2018 compared to \$3.1 million during 2017 and \$2.8 million during 2016.

Fees collected for the servicing of mortgage loans, primarily for GSEs, were \$9.9 million during 2018 compared to \$11.6 million during 2017 and \$12.1 million during 2016. Heartland sold its GNMA servicing portfolio in the third quarter of 2017, which negatively impacted residential mortgage servicing income in the second half of 2017 as well as for the year ended December 31, 2018. Any GNMA government guaranteed residential real estate loans originated after July 1, 2017 by the Banks are sold into the secondary market with servicing released. Heartland acquired the right to service mortgage loans with the First Bank Lubbock Bancshares, Inc. transaction that closed on May 18, 2018, and the servicing fee income recorded in 2018 related to this portfolio totaled \$1.0 million. Included in and offsetting loan servicing income is the amortization of capitalized servicing rights, which was \$5.9 million during 2018 compared to \$9.0 million during 2017 and \$10.5 million during 2016. The decrease in amortization of servicing rights in 2018 as compared to 2017 and 2016 was primarily due to decreased prepayment speeds of mortgage loans.

The portfolio of mortgage loans serviced by Heartland, primarily for GSEs, totaled \$4.10 billion at December 31, 2018, compared to \$3.56 billion at December 31, 2017, and \$4.31 billion at December 31, 2016. The increase in the mortgage servicing portfolio in 2018 was primarily attributable to the servicing portfolio acquired during the year, which totaled \$648.9 million at December 31, 2018. The decrease in the mortgage servicing portfolio in 2017 was primarily attributable to the sale of the GNMA servicing portfolio previously discussed. Note 8, "Goodwill, Core Deposit Intangibles and Other Intangible Assets," to the consolidated financial statements contains a discussion of our servicing rights.

Trust Fees

Trust fees increased \$2.6 million or 16% to \$18.4 million for 2018 compared to \$15.8 million for 2017. For the year ended December 31, 2017, trust fees increased \$973,000 or 7% from \$14.8 million in 2016. A large portion of trust fees are based upon the market value of trust assets under management, which totaled \$2.38 billion as of December 31, 2018, compared to \$2.31 billion as of December 31, 2017.

Net Gains on Sale of Loans Held for Sale

The following table shows the activity related to the net gains on sales of loans held for sale for the years indicated, in thousands:

	As of and For the Years Ended December 31,		
	2018	2017	2016
Total Residential Mortgage Loan Applications	\$ 983,297	\$ 1,061,149	\$ 1,597,031
Residential Mortgage Loans Originated	\$ 762,752	\$ 762,979	\$ 1,165,301
Residential Mortgage Loans Sold	\$ 682,907	\$ 709,845	\$ 1,108,079
Percentage of residential mortgage loans originated for refinancing	24%	32%	40%
Net gains on sales of residential mortgage loans	\$ 20,871	\$ 21,657	\$ 37,800
Net gains on sale of commercial and agricultural loans ⁽¹⁾	\$ 579	\$ 594	\$ 1,834
Gains on sale of loans held for sale	\$ 21,450	\$ 22,251	\$ 39,634

(1) Includes net gains on sale of commercial, commercial real estate and agricultural and agricultural real estate loans.

Net gains on sale of loans held for sale totaled \$21.5 million during 2018 compared to \$22.3 million during 2017 and \$39.6 million during 2016. These gains result primarily from the gain or loss on sales of mortgage loans into the secondary market, related fees and fair value marks on the associated derivatives. Heartland has experienced weakened demand for mortgage loan refinancings as interest rates have increased, as opposed to a low interest rate environment that existed in prior years, which encouraged mortgage loan refinancings. Mortgage loan applications were \$983.3 million during 2018 compared to \$1.06 billion during 2017 and \$1.60 billion during 2016. The percentage of residential mortgage loans that represented refinancings was 24% during 2018 compared to 32% during 2017 and 40% during 2016. The volume of residential mortgage loans sold totaled \$682.9 million during 2018 compared to \$709.8 million during 2017 and \$1.11 billion during 2016.

Due to changes in Heartland's legacy mortgage lending business, net gains on sales of residential mortgage loans will only reflect PrimeWest Mortgage Corporation mortgage production in 2019. Assuming there are no significant changes in the current interest rate environment, management expects net gains on sales of residential mortgage loans to be \$15 million to \$16 million in 2019 with normal seasonal patterns.

Net gains on sale of loans held for sale also includes gains on the sale of commercial, commercial real estate, agricultural and agricultural real estate loans, which totaled \$579,000 during 2018 compared to \$594,000 during 2017 and \$1.8 million during 2016.

Securities Gains, Net

Securities gains totaled \$1.1 million during 2018 compared to \$7.0 million during 2017 and \$11.3 million during 2016. During 2017, the remaining three private label Z tranche securities with a book value of \$57,000 were sold for a gain of \$2.8 million. There were no similar sales in 2018, and Heartland's securities portfolio was in a net unrealized loss position during 2018.

Other Noninterest Income

Other noninterest income was \$4.8 million during 2018 compared to \$5.3 million during 2017 and \$5.6 million during 2016, a decrease of \$573,000 or 11% during 2018 and a decrease of \$245,000 or 4% during 2017. Included in other noninterest income during 2017 was \$464,000 related to recoveries on acquired loans that had been charged off prior to the acquisition dates and \$1.3 million was associated with a gain on extinguishment of debt. Included in noninterest income in 2016 was a \$1.2 million gain associated with a partnership investment, a \$602,000 reimbursement from a customer for loan workout expenses that had been incurred and paid in prior years and a \$517,000 recovery on a loan charged-off at Premier Valley Bank prior to acquisition. There were no similar items recorded in 2018.

Noninterest Expenses

The following table summarizes Heartland's noninterest expenses for the years indicated, in thousands:

NONINTEREST EXPENSES

	For the Years Ended December 31,			% Change	
	2018	2017	2016	2018/2017	2017/2016
Salaries and employee benefits	\$ 196,118	\$ 171,407	\$ 163,547	14%	5%
Occupancy	25,328	22,244	20,398	14	9
Furniture and equipment	12,529	11,061	10,245	13	8
Professional fees	39,811	32,879	27,676	21	19
FDIC insurance assessments	3,699	3,595	4,185	3	(14)
Advertising	9,565	7,229	6,448	32	12
Core deposit intangibles and customer relationship intangibles amortization	9,355	6,077	5,630	54	8
Other real estate and loan collection expenses	3,038	2,461	2,443	23	1
Loss on sales/valuations of assets, net	2,208	2,475	1,478	(11)	67
Restructuring expenses	2,564	—	—	100	—
Other noninterest expenses	49,673	38,247	37,618	30	2
Total Noninterest Expenses	<u>\$ 353,888</u>	<u>\$ 297,675</u>	<u>\$ 279,668</u>	19%	6%

Noninterest expenses totaled \$353.9 million in 2018 compared to \$297.7 million in 2017, a \$56.2 million or 19% increase, with the most significant increases in salaries and employee benefits, professional fees, advertising, restructuring expenses and other noninterest expenses. Noninterest expenses totaled \$297.7 million in 2017 compared to \$279.7 million in 2016, an \$18.0 million or 6% increase, with the most significant increases in salaries and employee benefits, professional fees and loss on sales/valuations of assets, net.

Salaries and Employee Benefits

The largest component of noninterest expense, salaries and employee benefits, increased \$24.7 million or 14% to \$196.1 million in 2018 and \$7.9 million or 5% to \$171.4 million in 2017. These increases were primarily attributable to the additional salaries and employee benefits for employees of the acquired entities. Full-time equivalent employees totaled 2,045 on December 31, 2018, compared to 2,008 on December 31, 2017, and 1,864 on December 31, 2016.

Professional Fees

Professional fees increased \$6.9 million or 21% to \$39.8 million during 2018 and \$5.2 million or 19% to \$32.9 million during 2017. These increases were primarily attributable to the services provided to Heartland by third-party advisors, including services performed in connection with mergers and acquisitions, model validation expenses and advisory services associated with the increased level of regulation resulting from Heartland having assets over \$10 billion.

Advertising

Advertising expense increased \$2.3 million or 32% to \$9.6 million during 2018 and \$781,000 or 12% to \$7.2 million during 2017. Advertising expense for First Bank & Trust totaled \$805,000 for 2018. For the year ended December 31, 2018, digital advertising expense totaled \$792,000, which was an increase of \$571,000 or 258% from \$221,000 recorded for the year ended December 31, 2017.

Net Losses on Sales/Valuations of Assets

Net losses on sales/valuations of assets totaled \$2.2 million during 2018 compared to \$2.5 million during 2017 and \$1.5 million during 2016. Write-downs and losses of \$1.3 million related to three other real estate properties were recorded in 2018. Included in net losses on sales/valuations of assets costs during 2017 were write-downs and losses totaling approximately \$900,000 related to the disposal of assets acquired in the Citywide Banks of Colorado, Inc. transaction.

Other Noninterest Expenses

Other noninterest expenses were \$49.7 million during 2018, \$38.2 million during 2017 and \$37.6 million during 2016. Included in other noninterest expenses were write-downs on partnership investments which qualified tax credits totaling \$4.2 million in 2018, \$1.9 million in 2017 and \$1.1 million in 2016.

Restructuring Expenses

In the first quarter of 2018, Heartland recorded \$2.6 million of restructuring expenses related to its mortgage lending operation. The restructuring projects were primarily related to outsourcing the loan application processing, underwriting and loan closing functions. The restructuring expenses consisted of severance and retention costs related to the workforce reduction and contract buyouts associated with the discontinued use of several information systems. Management expects to record restructuring expenses of approximately \$2 million to \$3 million in 2019 related to the completion of the sale of Citizens and the outsourcing of Heartland's legacy mortgage lending business.

Excluding the items noted above, increases in all other noninterest expense categories for the years ended December 31, 2018, and 2017, were primarily attributable to the acquisitions completed since 2016.

Efficiency Ratio

One of Heartland's top priorities has been to improve its efficiency ratio, on a fully tax-equivalent basis, with the goal of reducing it to the low 60% range. The efficiency ratio, fully tax-equivalent, improved during 2018 to 63.54% compared to 65.40% for 2017 and 66.25% for 2016. Management has taken actions to improve its efficiency ratio, including restructuring its mortgage lending operations and optimizing bank branch locations. Additionally, systems conversions of newly acquired entities are completed as soon as possible after the closing of the transaction in order to optimize cost savings. Management expects the efficiency ratio will show variability from year to year as a result of acquisition activities and also from the seasonality and related revenue and expense mismatches that are inherent in the residential mortgage business.

See "Selected Financial Data" in Item 6 of this Annual Report on Form 10-K for a description of the calculation of the efficiency ratio on a fully tax-equivalent basis, which is a non-GAAP financial measure.

Income Taxes

Heartland's effective tax rate was 19.4% for 2018 compared to 36.8% for 2017 and 31.3% for 2016. The lower effective tax rate for 2018 when compared to 2017 and 2016 was primarily the result of the reduced corporate federal tax rate. The Tax Cuts and Jobs Act, which among other provisions, reduced the federal corporate tax rate to 21% from the maximum rate of 35% effective January 1, 2018. In response to the Tax Cuts and Jobs Act, Heartland recorded a \$10.4 million non-cash charge to income tax expense in 2017 to adjust the value of its deferred tax assets and liabilities.

Included in Heartland's effective tax rate were solar energy tax credits totaling \$2.9 million for 2018 and \$449,000 for 2017, federal historic tax rehabilitation tax credits totaling \$713,000 for 2017, and federal low-income housing tax credits totaling \$1.2 million for each year ended December 31, 2018, 2017 and 2016. Heartland's effective tax rate is also affected by the level of tax-exempt interest income which, as a percentage of pre-tax income, was 16.1% during 2018, 23.6% during 2017 and 20.5% during 2016. The tax-equivalent adjustment for this tax-exempt interest income was \$6.2 million during 2018, \$15.1 million during 2017 and \$12.9 million during 2016.

FINANCIAL CONDITION

Heartland's total assets were \$11.41 billion at December 31, 2018, an increase of \$1.60 billion or 16% since December 31, 2017. Included in this increase, at fair value, were \$427.1 million of assets acquired in the Signature Bancshares, Inc. transaction and \$1.12 billion of assets acquired in the First Bank Lubbock Bancshares, Inc. transaction. Heartland's total assets were \$9.81 billion at December 31, 2017, an increase of \$1.56 billion or 19% since December 31, 2016. Included in this increase, at fair value, were \$213.9 million of assets acquired in the Founders Bancorp transaction and \$1.49 billion of assets acquired in the Citywide Banks of Colorado, Inc. transaction.

Lending Activities

Heartland has certain lending policies and procedures in place that are designed to provide for an acceptable level of credit risk. The board of directors reviews and approves these policies and procedures on a regular basis. A reporting system supplements the review process by providing management and the board with frequent reports related to loan production, loan quality, concentrations of credit, loan delinquencies and nonperforming loans and potential problem loans.

The commercial and commercial real estate loan portfolio includes a wide range of business loans, including lines of credit for working capital and operational purposes and term loans for the acquisition of equipment and real estate. Although most loans are made on a secured basis, loans may be made on an unsecured basis where warranted by the overall financial condition of the borrower. Terms of commercial business loans generally range from one to five years. Commercial loans are primarily made based on the identified cash flow of the borrower and secondarily on the underlying collateral provided by the borrower. The collateral for most of these loans is based upon a discount from its market value. The primary repayment risks of commercial loans are that the cash flow of the borrowers may be unpredictable, and the collateral securing these loans may fluctuate in value. Heartland seeks to minimize these risks in a variety of ways. The underwriting analysis includes credit verification, analysis of global cash flows, appraisals and a review of the financial condition of the borrower. Personal guarantees are frequently required as a tertiary form of repayment. In addition, when underwriting loans for commercial real estate, careful consideration is given to the property's operating history, future operating projections, current and projected occupancy, location and physical condition. Heartland also utilizes government guaranteed lending through the U.S. Small Business Administration and the USDA Rural Development Business and Industry Program to assist customers with longer-term funding and to reduce risk.

Agricultural loans, many of which are secured by crops, machinery and real estate, are provided to finance capital improvements and farm operations as well as acquisitions of livestock and machinery. Agricultural loans present unique credit risks relating to adverse weather conditions, loss of livestock due to disease or other factors, declines in market prices for agricultural products and the impact of government regulations. The ultimate repayment of agricultural loans is dependent upon the profitable operation or management of the agricultural entity. In underwriting agricultural loans, lending personnel work closely with their customers to review budgets and cash flow projections for the ensuing crop year. These budgets and cash flow projections are monitored closely during the year and reviewed with the customers at least annually. Lending personnel also work closely with governmental agencies, including the Farm Service Agency, to help agricultural customers obtain credit enhancement products such as loan guarantees or interest assistance.

Heartland originates first-lien, adjustable-rate and fixed-rate, one-to-four-family residential real estate loans for the construction, purchase or refinancing of a single family residential property. These loans are principally collateralized by owner-occupied properties and are amortized over 10 to 30 years. Heartland typically sells longer-term, low-rate, residential mortgage loans in the secondary market with servicing rights retained. This practice allows Heartland to better manage interest rate risk and liquidity risk. The Heartland banks participate in lending programs sponsored by U.S. government agencies such as Veterans Administration and Federal Home Administration when justified by market conditions.

Consumer lending includes motor vehicle, home improvement, home equity and small personal credit lines. Consumer loans typically have shorter terms, lower balances, higher yields and higher risks of default than one- to four-family first-lien residential mortgage loans. Consumer loan collections are dependent on the borrower's continuing financial stability, and are therefore more likely to be affected by adverse personal circumstances. Risk is reduced through underwriting criteria, which include credit verification, appraisals, a review of the borrower's financial condition and personal cash flows. A security interest, with title insurance when necessary, is taken in the underlying real estate.

Heartland's major source of income is interest on loans. The table below presents the composition of Heartland's loan portfolio at the end of the years indicated, in thousands:

LOAN PORTFOLIO

	As of December 31,									
	2018		2017		2016		2015		2014	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Loans receivable held to maturity:										
Commercial	\$ 2,020,231	27.26%	\$ 1,646,606	25.76%	\$ 1,287,265	24.04%	\$ 1,279,214	25.56%	\$ 1,036,080	26.72%
Commercial real estate	3,711,481	50.08	3,163,269	49.48	2,538,582	47.42	2,326,360	46.50	1,707,060	44.02
Agricultural and agricultural real estate	565,408	7.63	511,588	8.00	489,318	9.14	471,870	9.43	423,827	10.93
Residential mortgage	673,603	9.09	624,279	9.76	617,924	11.54	539,555	10.78	380,341	9.81
Consumer	440,158	5.94	447,484	7.00	420,613	7.86	386,867	7.73	330,555	8.52
Gross loans receivable held to maturity	7,410,881	100.00%	6,393,226	100.00%	5,353,702	100.00%	5,003,866	100.00%	3,877,863	100.00%
Unearned discount	(1,624)		(556)		(699)		(488)		(90)	
Deferred loan fees	(1,560)		(1,206)		(1,284)		(1,892)		(1,028)	
Total net loans receivable held to maturity	\$ 7,407,697		\$ 6,391,464		\$ 5,351,719		\$ 5,001,486		\$ 3,876,745	
Loans covered under loss share agreements:										
Commercial and commercial real estate	\$ —	—%	\$ —	—%	\$ —	—%	\$ —	—%	\$ 54	4.29%
Agricultural and agricultural real estate	—	—	—	—	—	—	—	—	—	—
Residential mortgage	—	—	—	—	—	—	—	—	1,204	95.71
Consumer	—	—	—	—	—	—	—	—	—	—
Total loans covered under loss share agreements	—	—%	—	—%	—	—%	—	—%	1,258	100.00%
Allowance for loan losses	(61,963)		(55,686)		(54,324)		(48,685)		(41,449)	
Loans receivable, net	\$ 7,345,734		\$ 6,335,778		\$ 5,297,395		\$ 4,952,801		\$ 3,836,554	

Loans held for sale totaled \$119.8 million at December 31, 2018, which includes \$96.0 million of loans to be sold in conjunction with the pending branch sales and Citizens' loan portfolios, and \$23.8 million of primarily residential mortgage loans. Loans held for sale totaled \$44.6 million at December 31, 2017, and \$61.3 million at December 31, 2016, which is primarily affected by mortgage loan origination activity.

The table below sets forth the remaining maturities of loans by category, including loans held for sale and excluding unearned discount and deferred loan fees, as of December 31, 2018, in thousands:

MATURITY AND RATE SENSITIVITY OF LOANS⁽¹⁾

	One Year or Less	Over 1 Year Through 5 Years		Over 5 Years		Total
		Fixed Rate	Floating Rate	Fixed Rate	Floating Rate	
Commercial	\$ 871,744	\$ 417,238	\$ 245,819	\$ 308,362	\$ 182,105	\$ 2,025,268
Commercial real estate	782,431	1,127,412	585,048	198,576	1,031,171	3,724,638
Residential real estate	104,043	38,833	63,050	166,099	327,617	699,642
Agricultural and agricultural real estate	285,350	174,114	30,603	33,573	43,932	567,572
Consumer	143,275	67,286	43,478	33,757	225,766	513,562
Total	\$ 2,186,843	\$ 1,824,883	\$ 967,998	\$ 740,367	\$ 1,810,591	\$ 7,530,682

(1) Maturities based upon contractual dates.

Total loans held to maturity were \$7.41 billion at December 31, 2018, compared to \$6.39 billion at year-end 2017, an increase of \$1.02 billion or 16%. Excluding \$96.0 million of loans that were classified as held for sale in conjunction with the pending branch sales and the Citizens transaction and \$1.01 billion of loans acquired from Signature Bancshares, Inc. and First Bank Lubbock Bancshares, Inc. in 2018, total loans held to maturity increased \$106.7 million or 2% since year-end 2017. Total loans held to maturity were \$6.39 billion at December 31, 2017, compared to \$5.35 billion at year-end 2016, an increase of \$1.04 billion or 19%. This increase includes \$1.08 billion of total loans held to maturity, at fair value, acquired in the Founders Bancorp and Citywide Banks of Colorado, Inc. transactions. Exclusive of these transactions, total loans held to maturity decreased \$42.1 million or less than 1% since year-end 2016.

The commercial and commercial real estate loan category continues to be the primary focus for all of the Banks. These loans comprised 77% of the loan portfolio at December 31, 2018 compared to 75% at year-end 2017. Commercial and commercial real estate loans, which totaled \$5.73 billion at December 31, 2018, increased \$921.8 million or 19% since year-end 2017. Exclusive of \$830.0 million of commercial and commercial real estate loans acquired from Signature Bancshares, Inc. and First Bank Lubbock Bancshares, Inc. in 2018, commercial and commercial real estate loans increased \$91.8 million or 2% since year-end 2017. Included in loans acquired from Signature Bancshares, Inc. is a lease portfolio with a fair value of \$16.0 million as of the acquisition date. The lease portfolio is included with the commercial loan category for disclosure purposes. Commercial and commercial real estate loans increased \$984.0 million or 26% to \$4.81 billion at December 31, 2017. Exclusive of \$988.1 million of commercial and commercial real estate loans acquired in the Founders Bancorp and Citywide Banks of Colorado, Inc. transactions, commercial and commercial real estate loans decreased \$4.1 million or less than 1% to \$4.81 billion at December 31, 2017.

Residential mortgage loans, which totaled \$673.6 million at December 31, 2018, increased \$49.3 million or 8% since year-end 2017. Exclusive of \$81.6 million of residential mortgage loans acquired from Signature Bancshares, Inc. and First Bank Lubbock Bancshares, Inc. in 2018, residential mortgage loans decreased \$32.3 million or 5% from year-end 2017. Residential mortgage loans, which totaled \$624.3 million at December 31, 2017, increased \$6.4 million or 1% since year-end 2016. Exclusive of \$64.4 million of residential mortgage loans acquired in 2017, residential mortgage loans decreased \$58.0 million or 9% from year-end 2016.

Agricultural and agricultural real estate loans, which totaled \$565.4 million at December 31, 2018, increased \$53.8 million or 11% in 2018 from \$511.6 million at December 31, 2017, and increased \$22.3 million or 5% in 2017 from \$489.3 million at December 31, 2016. Excluding \$28.6 million of agricultural and agricultural loans acquired in the First Bank Lubbock Bancshares, Inc. transaction in 2018, agricultural and agricultural real estate loans increased \$25.2 million or 5% since year-end 2017. Approximately 77% of Heartland's agricultural loans at year-end 2018 were borrowers located in the Midwest. The agricultural loan portfolio is well diversified among loans relating to grain crops, dairy cows, hogs and cattle.

Consumer loans, which totaled \$440.2 million at December 31, 2018, decreased \$7.3 million or 2% in 2018 from \$447.5 million at December 31, 2017, and increased \$26.9 million or 6% in 2017 from \$420.6 million at December 31, 2016. Exclusive of \$65.3 million of consumer loans acquired from Signature Bancshares, Inc. and First Bank Lubbock Bancshares, Inc. and \$73.4 million of loans transferred to held for sale, consumer loans increased \$800,000 or less than 1% since December 31, 2017. Excluding \$30.9 million of acquired loans in 2017, consumer loans decreased \$4.1 million or 1% since December 31, 2016.

Loans secured by real estate, either fully or partially, totaled \$4.80 billion or 65% of gross loans at December 31, 2018 and \$4.23 billion or 66% of total loans at December 31, 2017. Approximately 51% of the non-farm, nonresidential loans are owner occupied. The largest categories within our real estate secured loans are listed below, in thousands:

LOANS SECURED BY REAL ESTATE

	As of December 31,	
	2018	2017
Residential real estate, excluding residential construction and residential lot loans	\$ 1,119,942	\$ 1,080,066
Industrial, manufacturing, business and commercial	805,265	935,614
Agriculture	270,023	256,452
Retail	435,680	348,749
Office	485,262	356,782
Land development and lots	216,665	162,273
Hotel, resort and hospitality	233,735	167,396
Multi-family	311,319	211,862
Food and beverage	130,981	108,977
Warehousing	186,436	125,372
Health services	182,882	155,529
Residential construction	171,116	134,848
All other	255,145	187,508
Total loans secured by real estate	<u>\$ 4,804,451</u>	<u>\$ 4,231,428</u>

Although repayment risk exists on all loans, different factors influence repayment risk for each type of loan. The primary risks associated with commercial and agricultural loans are the quality of the borrower's management and the health of national and regional economies. Additionally, repayment of commercial and agricultural real estate loans may be influenced by fluctuating property values and concentrations of loans in a specific type of real estate. Repayment on loans to individuals, including those secured by residential real estate, are dependent on the borrower's continuing financial stability as well as the value of the collateral underlying these credits, and thus are more likely to be affected by adverse personal circumstances and deteriorating economic conditions. These risks are described in more detail in Item 1A. "Risk Factors" of this Annual Report on Form 10-K. We monitor loan concentrations and do not believe we have excessive concentrations in any specific industry.

Our strategy with respect to the management of these types of risks, whether loan demand is weak or strong, is to encourage the Banks to follow tested and prudent loan policies and underwriting practices, which include: (i) making loans on a sound and collectible basis; (ii) ensuring that primary and secondary sources of repayment are adequate in relation to the amount of the loan; (iii) administering loan policies through a board of directors; (iv) developing and maintaining adequate diversification of the loan portfolio as a whole and of the loans within each loan category; and (v) ensuring that each loan is properly documented and, if appropriate, guaranteed by government agencies or adequately insured.

We regularly monitor and continue to develop systems to oversee the quality of our loan portfolio. Under our internal loan review program, loan review officers are responsible for reviewing existing loans, testing loan ratings assigned by loan officers, identifying potential problem loans and monitoring the adequacy of the allowance for loan losses at the Banks. An integral part of our loan review program is a loan rating system, under which a rating is assigned to each loan within the portfolio based on the borrower's financial position, repayment ability, collateral position and repayment history.

The table below presents the amounts of nonperforming loans and other nonperforming assets on the dates indicated, in thousands:

NONPERFORMING ASSETS

	As of December 31,				
	2018	2017	2016	2015	2014
Not covered under loss share agreements:					
Nonaccrual loans	\$ 71,943	\$ 62,581	\$ 64,299	\$ 39,655	\$ 25,070
Loans contractually past due 90 days or more	726	830	86	—	—
Total nonperforming loans	72,669	63,411	64,385	39,655	25,070
Other real estate	6,153	10,777	9,744	11,524	19,016
Other repossessed assets	459	411	663	485	445
Total nonperforming assets not covered under loss share agreements	\$ 79,281	\$ 74,599	\$ 74,792	\$ 51,664	\$ 44,531
Covered under loss share agreements:					
Nonaccrual loans	\$ —	\$ —	\$ —	\$ —	\$ 278
Total nonperforming loans	—	—	—	—	278
Other real estate	—	—	—	—	—
Total nonperforming assets covered under loss share agreements	\$ —	\$ —	\$ —	\$ —	\$ 278
Restructured loans ⁽¹⁾	\$ 4,026	\$ 6,617	\$ 10,380	\$ 11,075	\$ 12,133
Nonperforming loans not covered under loss share agreements to total loans receivable	0.98%	0.99%	1.20%	0.79%	0.65%
Nonperforming assets not covered under loss share agreements to total loans receivable plus repossessed property	1.07%	1.17%	1.39%	1.03%	1.14%
Nonperforming assets not covered under loss share agreements to total assets	0.69%	0.76%	0.91%	0.67%	0.74%

(1) Represents accruing restructured loans performing according to their restructured terms.

The tables below summarize the changes in Heartland's nonperforming assets, including other real estate owned ("OREO") during 2018 and 2017, in thousands:

	Nonperforming Loans	Other Real Estate Owned	Other Repossessed Assets	Total Nonperforming Assets
December 31, 2017	\$ 63,411	\$ 10,777	\$ 411	\$ 74,599
Loan foreclosures	(7,954)	7,866	88	—
Net loan charge offs	(17,736)	—	—	(17,736)
New nonperforming loans	59,097	—	—	59,097
Acquired nonperforming assets	9,246	1,186	—	10,432
Reduction of nonperforming loans ⁽¹⁾	(33,395)	—	—	(33,395)
OREO/Repossessed sales proceeds	—	(11,578)	(74)	(11,652)
OREO/Repossessed assets write-downs, net	—	(2,098)	(27)	(2,125)
Net activity at Citizens Finance Parent Co.	—	—	61	61
December 31, 2018	\$ 72,669	\$ 6,153	\$ 459	\$ 79,281

(1) Includes principal reductions and transfers to performing status.

	Nonperforming Loans	Other Real Estate Owned	Other Reposessed Assets	Total Nonperforming Assets
December 31, 2016	\$ 64,385	\$ 9,744	\$ 663	\$ 74,792
Loan foreclosures	(5,555)	5,294	261	—
Net loan charge offs	(14,201)	—	—	(14,201)
New nonperforming loans	47,547	—	—	47,547
Acquired nonperforming assets	1,075	6,916	—	7,991
Reduction of nonperforming loans ⁽¹⁾	(29,840)	—	—	(29,840)
OREO/Reposessed sales proceeds	—	(10,449)	(245)	(10,694)
OREO/Reposessed assets write-downs, net	—	(728)	(12)	(740)
Net activity at Citizens Finance Parent Co.	—	—	(256)	(256)
December 31, 2017	<u>\$ 63,411</u>	<u>\$ 10,777</u>	<u>\$ 411</u>	<u>\$ 74,599</u>

(1) Includes principal reductions and transfers to performing status.

Nonperforming loans were \$72.7 million or 0.98% of total loans at December 31, 2018, compared to \$63.4 million or 0.99% of total loans at December 31, 2017. Excluding \$9.2 million of acquired nonperforming loans, nonperforming loans remained unchanged from year-end 2017. Exclusive of \$1.1 million of acquired nonperforming loans, nonperforming loans decreased \$2.0 million or 3% in 2017. Approximately 18%, or \$13.1 million, of Heartland's nonperforming loans at December 31, 2018, were in the residential real estate portfolio compared to 33% or \$20.9 million at December 31, 2017. At December 31, 2018 and 2017, \$7.7 million and \$13.5 million, respectively, of the nonperforming residential real estate loans were repurchased loans under various GNMA insured or guaranteed loan programs.

Approximately 50%, or \$36.2 million, of Heartland's nonperforming loans at December 31, 2018, had individual loan balances exceeding \$1.0 million, the largest of which was \$7.2 million. At December 31, 2017, approximately 42%, or \$26.7 million, of Heartland's nonperforming loans had individual loan balances exceeding \$1.0 million, the largest of which was \$8.6 million. The portion of Heartland's nonresidential real estate nonperforming loans covered by government guarantees was \$7.7 million at December 31, 2018, compared to \$3.0 million at December 31, 2017, and \$3.0 million at December 31, 2016.

During the third quarter of 2017, Heartland sold substantially of all of its GNMA loan servicing portfolio, which contained loans with an unpaid principal balance of approximately \$773.9 million. The sale effectively eliminates Heartland's obligation, as a GNMA loan servicer, to repurchase any additional non-performing government guaranteed residential real estate loans from the GNMA loan pools. In addition, any GNMA government guaranteed residential real estate loans originated after July 1, 2017 by Heartland's banks are sold into the secondary market with servicing released.

Delinquencies in each of the loan portfolios continue to be well-managed. Loans delinquent 30 to 89 days as a percent of total loans were 0.21% at December 31, 2018, compared to 0.27% at December 31, 2017, and 0.37% at December 31, 2016.

Other real estate owned was \$6.2 million at December 31, 2018, compared to \$10.8 million at December 31, 2017, and \$9.7 million at December 31, 2016. Liquidation strategies have been identified for all the assets held in other real estate owned. Management continues to market these properties through a systematic liquidation process instead of an immediate liquidation process in order to avoid discounts greater than the projected carrying costs. Proceeds from the sale of other real estate owned totaled \$11.6 million in 2018 compared to \$10.4 million in 2017 and \$4.6 million in 2016.

In certain circumstances, we may modify the terms of a loan to maximize the collection of amounts due. In most cases, the modification is either a reduction in interest rate, conversion to interest only payments, extension of the maturity date or a reduction in the principal balance. Generally, the borrower is experiencing financial difficulties or is expected to experience difficulties in the near-term, so a concessionary modification is granted to the borrower that would otherwise not be considered. Restructured loans accrue interest as long as the borrower complies with the revised terms and conditions and has demonstrated repayment performance at a level commensurate with the modified terms over several payment cycles. Although many of our loan restructurings occur on a case-by-case basis in connection with ongoing loan collection processes, we have also participated in certain restructuring programs for residential real estate borrowers. In general, certain residential real estate borrowers facing an interest rate reset that are current in their repayment status are allowed to retain the lower of their existing interest rate or the market interest rate as of their interest reset date.

We had an aggregate balance of \$8.1 million in restructured loans at December 31, 2018, of which \$4.1 million were classified as nonaccrual and \$4.0 million were accruing according to the restructured terms. At December 31, 2017, we had an aggregate balance of \$10.9 million in restructured loans, of which \$4.3 million were classified as nonaccrual and \$6.6 million were accruing according to the restructured terms.

At December 31, 2018, \$240.6 million or 55% of the consumer loan portfolio were in home equity lines of credit ("HELOCs") compared to \$223.8 million or 50% at December 31, 2017. Under our policy guidelines for the underwriting of these lines of credit, the customer may receive advances of up to 90% of the value of the property securing the line, provided the customer qualifies for Tier I classification, our internal ranking for customers considered to possess a high credit quality profile. Additionally, to qualify for advances up to 90% of the value of the property securing the line, the first mortgage must be held by Heartland and the customer must escrow for both taxes and insurance. Otherwise, advances under HELOCs cannot exceed 80% of the value of the property securing the loan.

The Banks have not been active in the origination of subprime loans. Consistent with our community banking model, which includes meeting the legitimate credit needs within the communities served, the Banks may make loans to borrowers possessing subprime characteristics if there are mitigating factors present that reduce the potential default risk of the loan.

Allowance For Loan Losses

The process we use to determine the appropriateness of the allowance for loan losses is considered a critical accounting practice for Heartland and has remained consistent over the past several years. The allowance for loan losses represents management's estimate of identified and unidentified probable losses in the existing loan portfolio. For additional details on the specific factors considered, refer to the critical accounting policies section of this report.

The allowance for loan losses at December 31, 2018, was 0.84% of loans and 85.27% of nonperforming loans compared to 0.87% of loans and 87.82% of nonperforming loans at December 31, 2017, and 1.02% of loans and 84.37% of nonperforming loans at December 31, 2016. Exclusive of acquired loans, for which a valuation reserve is recorded, the allowance for loan losses at December 31, 2018, was 1.03% of loans in comparison with 1.13% of loans at December 31, 2017, and 1.22% of loans at December 31, 2016. The provision for loan losses was \$24.0 million during 2018 compared to \$15.6 million during 2017 and \$11.7 million during 2016. The allowance for loan losses on impaired loans represented \$7.6 million at December 31, 2018, in comparison with \$4.8 million at December 31, 2017, and \$6.8 million at December 31, 2016. The allowance on non-impaired loans was \$54.4 million at December 31, 2018, in comparison with \$50.9 million at December 31, 2017, and \$47.6 million at December 31, 2016. The allowance on non-impaired loans is 0.74% at December 31, 2018 compared to 0.81% of non-impaired loans at December 31, 2017 and 0.91% at December 31, 2016. The increase in allowance for loan losses associated with loans individually evaluated for impairment in 2018 was primarily attributable to one commercial relationship with \$2.7 million of total impairment recorded in 2018. Heartland had \$1.63 billion of acquired loans, which are net of \$40.9 million of valuation reserves that were not subject to the allowance at December 31, 2018. At December 31, 2017, Heartland had \$1.47 billion of acquired loans, which are net of \$36.4 million of valuation reserves that were not subject to the allowance.

The amount of net charge-offs was \$17.7 million during 2018 compared to \$14.2 million during 2017 and \$6.1 million during 2016. As a percentage of average loans, net charge-offs were 0.25% during 2018 compared to 0.24% during 2017 and 0.11% during 2016. Citizens Finance Parent Co., our consumer finance subsidiary, experienced net charge-offs of \$6.4 million during 2018 compared to \$4.7 million during 2017 and \$4.3 million during 2016. The Citizens' loan portfolios were recorded at fair value due to the held for sale classification, which resulted in a charge-off of \$3.1 million in the fourth quarter of 2018. Historically, the Citizens' loan portfolios have accounted for approximately 6 to 8 basis points of net charge-offs.

The \$8.1 million increase in net charge-offs in 2017 is primarily attributable to five relationships, which had a combined \$6.8 million in charge-offs during the year. Of these charge-offs, \$2.5 million had been reserved in prior years. We recognize charge-offs on certain collateral dependent loans by writing down the loan balance to an estimated net realizable value based on the anticipated disposition value.

The table below summarizes activity in the allowance for loan losses for the years indicated, including amounts of loans charged off, amounts of recoveries, additions to the allowance charged to income, additions related to acquisitions and the ratio of net charge-offs to average loans outstanding, in thousands:

ANALYSIS OF ALLOWANCE FOR LOAN LOSSES

	As of December 31,				
	2018	2017	2016	2015	2014
Allowance at beginning of year	\$ 55,686	\$ 54,324	\$ 48,685	\$ 41,449	\$ 41,685
Charge-offs:					
Commercial	7,916	4,640	1,348	1,887	8,749
Commercial real estate	1,977	2,712	2,868	1,368	2,889
Residential real estate	372	800	346	241	342
Agricultural and agricultural real estate	1,437	2,916	214	551	2,251
Consumer	9,583	6,803	6,618	4,967	4,496
Total charge-offs	21,285	17,871	11,394	9,014	18,727
Recoveries:					
Commercial	978	811	930	1,167	753
Commercial real estate	1,047	1,192	3,327	1,200	2,290
Residential real estate	96	358	29	183	148
Agricultural and agricultural real estate	13	18	10	32	11
Consumer	1,415	1,291	1,043	971	788
Total recoveries	3,549	3,670	5,339	3,553	3,990
Net charge-offs ⁽¹⁾⁽²⁾	17,736	14,201	6,055	5,461	14,737
Provision for loan losses	24,013	15,563	11,694	12,697	14,501
Allowance at end of year	\$ 61,963	\$ 55,686	\$ 54,324	\$ 48,685	\$ 41,449
Net charge-offs to average loans	0.25%	0.24%	0.11%	0.12%	0.39%

(1) Includes net charge-offs at Citizens Finance Parent Co. of \$6,397 for 2018, \$4,673 for 2017, \$4,280 for 2016, \$2,902 for 2015, and \$3,080 for 2014.

(2) Includes net charge-offs (recoveries) on loans covered under loss share agreements of \$0 for 2018, \$0 for 2017, \$0 for 2016, \$0 for 2015, and (\$14) for 2014.

The table below shows our allocation of the allowance for loan losses by types of loans and the amount of unallocated reserves, in thousands:

ALLOCATION OF ALLOWANCE FOR LOAN LOSSES

	As of December 31,									
	2018		2017		2016		2015		2014	
	Amount	Loan Category to Gross Loans Receivable	Amount	Loan Category to Gross Loans Receivable	Amount	Loan Category to Gross Loans Receivable	Amount	Loan Category to Gross Loans Receivable	Amount	Loan Category to Gross Loans Receivable
Commercial	\$ 24,505	27.26%	\$ 18,098	25.76%	\$ 14,765	24.04%	\$ 16,095	25.56%	\$ 11,909	26.72%
Commercial real estate	25,538	50.08	21,950	49.48	24,319	47.42	19,532	46.50	15,898	44.02
Residential real estate	1,785	9.09	2,224	9.76	2,263	11.54	1,934	10.78	3,741	9.81
Agricultural and agricultural real estate	4,953	7.63	4,258	8.00	4,210	9.14	3,887	9.43	3,295	10.93
Consumer	5,182	5.94	9,156	7.00	8,767	7.86	7,237	7.73	6,606	8.52
Total allowance for loan losses	<u>\$ 61,963</u>		<u>\$ 55,686</u>		<u>\$ 54,324</u>		<u>\$ 48,685</u>		<u>\$ 41,449</u>	

Management allocates the allowance for loan losses by pools of risk within each loan portfolio. The allocation of the allowance for loan losses by loan portfolio is made for analytical purposes and is not necessarily indicative of the trend of future loan losses in any particular category. The total allowance for loan losses is available to absorb losses from any segment of the loan portfolio.

Securities

The composition of Heartland's securities portfolio is managed to maximize the return on the portfolio while considering the impact it has on Heartland's asset/liability position and liquidity needs. Securities represented 24% of Heartland's total assets at December 31, 2018, compared to 25% at December 31, 2017, and 26% at December 31, 2016. Whenever possible, management intends to use a portion of the proceeds from maturities, paydowns and sales of securities to fund loan growth and paydown wholesale borrowings. Total securities carried at fair value as of December 31, 2018, were \$2.45 billion, an increase of \$234.0 million or 11% since December 31, 2017. The increase includes \$35.2 million of securities acquired in 2018. Total securities carried at fair value as of December 31, 2017, were \$2.22 billion, an increase of \$370.9 million or 20% since December 31, 2016. The increase includes \$236.4 million of securities acquired in the Founders Bancorp and Citywide Banks of Colorado, Inc. transactions.

The table below presents the composition of the securities portfolio, including carried at fair value, held to maturity and other, by major category, in thousands:

SECURITIES PORTFOLIO COMPOSITION

	As of December 31,					
	2018		2017		2016	
	Amount	% of Portfolio	Amount	% of Portfolio	Amount	% of Portfolio
U.S. government corporations and agencies	\$ 31,951	1.18%	\$ 5,328	0.21%	\$ 4,700	0.22%
Mortgage and asset-backed securities	2,026,698	74.64	1,753,736	70.35	1,290,500	60.56
Obligation of states and political subdivisions	611,257	22.50	694,565	27.86	799,806	37.53
Equity securities	17,086	0.63	16,674	0.67	14,520	0.68
Other securities	28,396	1.05	22,563	0.91	21,560	1.01
Total securities	<u>\$ 2,715,388</u>	<u>100.00%</u>	<u>\$ 2,492,866</u>	<u>100.00%</u>	<u>\$ 2,131,086</u>	<u>100.00%</u>

The percentage of Heartland's securities portfolio comprised of U.S. government corporations and agencies was 1% at December 31, 2018, compared to less than 1% at both December 31, 2017, and December 31, 2016. Mortgage and asset-backed securities comprised 75% of Heartland's securities portfolio at December 31, 2018, compared to 70% at December 31, 2017, and 61% at December 31, 2016.

Approximately 62% of Heartland's mortgage and asset-backed securities were issued by GSEs at December 31, 2018, compared to 75% at December 31, 2017, and 77% at December 31, 2016. Heartland's securities portfolio had an expected modified duration of 4.01 years as of December 31, 2018, compared to 4.71 years as of December 31, 2017, and 4.34 years as of December 31, 2016.

At December 31, 2018, we had \$28.4 million of other securities, including capital stock in the various Federal Home Loan Banks ("FHLB") of which the Banks are members. All securities classified as other are held at cost.

The tables below present the contractual maturities for the debt securities in the securities portfolio at December 31, 2018, by major category and classification as available for sale or held to maturity, in thousands. Expected maturities will differ from contractual maturities, as borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

SECURITIES AVAILABLE FOR SALE PORTFOLIO MATURITIES

	Within One Year		After One But Within Five Years		After Five But Within Ten Years		After Ten Years		Mortgage and asset-backed and equity securities		Total	
	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
U.S. government corporations and agencies	\$ 22,942	2.09%	\$ 2,472	2.62%	\$ 1,593	2.08%	\$ 4,944	3.84%	\$ —	—%	\$ 31,951	2.40%
Obligations of states and political subdivisions	7,221	2.69	48,648	2.72	133,830	2.87	185,275	2.97	—	—	374,974	2.84
Mortgage and asset-backed securities	—	—	—	—	—	—	—	—	2,026,698	2.94	2,026,698	2.94
Equity securities	—	—	—	—	—	—	—	—	17,086	—	17,086	—
Total	\$ 30,163	2.24%	\$ 51,120	2.71%	\$135,423	2.86%	\$ 190,219	2.99%	\$ 2,043,784	2.45%	\$2,450,709	2.92%

SECURITIES HELD TO MATURITY PORTFOLIO MATURITIES

	Within One Year		After One But Within Five Years		After Five But Within Ten Years		After Ten Years		Total	
	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
Obligations of states and political subdivisions	\$ 583	3.31%	\$ 31,156	4.05%	\$ 111,690	4.30%	\$ 92,854	3.72%	\$ 236,283	4.04%
Total	\$ 583	3.31%	\$ 31,156	4.05%	\$ 111,690	4.30%	\$ 92,854	3.72%	\$ 236,283	4.04%

The unrealized losses on Heartland's debt securities are the result of changes in market interest rates or widening of market spreads subsequent to the initial purchase of the securities and not related to concerns regarding the underlying credit of the issuers or the underlying collateral. For this reason and because we have the ability and intent to hold those investments until a recovery of fair value, which may be maturity, we did not consider those investments to be other-than-temporarily impaired at December 31, 2018. See Note 4, "Securities" of the consolidated financial statements for further discussion regarding unrealized losses on our securities portfolio.

Deposits

The table below sets forth the distribution of our average deposit account balances and the average interest rates paid on each category of deposits for the years indicated, in thousands:

AVERAGE DEPOSITS

	For the Years Ended December 31,								
	2018			2017			2016		
	Average Deposits	Percent of Deposits	Average Interest Rate	Average Deposits	Percent of Deposits	Average Interest Rate	Average Deposits	Percent of Deposits	Average Interest Rate
Demand deposits	\$ 3,265,532	35.87%	—%	\$ 2,643,945	34.83%	—%	\$ 2,130,536	31.27%	—%
Savings	4,779,977	52.50	0.53	4,044,032	53.28	0.27	3,680,535	54.02	0.22
Time deposits less than \$100,000	559,360	6.14	1.03	525,165	6.92	0.79	577,908	8.48	0.82
Time deposits of \$100,000 or more	499,409	5.49	0.96	377,090	4.97	0.80	424,802	6.23	0.75
Total deposits	\$ 9,104,278	100.00%		\$ 7,590,232	100.00%		\$ 6,813,781	100.00%	

Total average deposits increased \$1.51 billion or 20% during 2018, which includes approximately \$856.7 million of deposits acquired in 2018. Total average deposits increased \$776.5 million or 11% during 2017, which includes approximately \$739.0 million of deposits acquired with the Founders Bancorp and Citywide of Colorado, Inc. transactions. Excluding acquired deposits, total average deposits increased \$657.3 million or 9% during 2018 and \$37.5 million or 1% during 2017. The percentage of our

total average deposit balances attributable to branch banking offices in our Midwestern markets was 41% during 2018, 46% during 2017 and 53% during 2016.

Average demand deposits increased \$621.6 million or 24% during 2018 and \$513.4 million or 24% during 2017. Exclusive of approximately \$213.7 million of demand deposits acquired in 2018, average demand deposits increased \$407.9 million or 15%. Exclusive of approximately \$337.3 million of demand deposits acquired in 2017, average demand deposits increased \$176.1 million or 8%. The mix of total deposits has continued to improve, with demand deposits representing 35% at both December 31, 2018, and 2017. The percentage of our total average demand deposit balances attributable to branch banking offices in our Midwestern markets was 34% during 2018, 37% during 2017 and 43% during 2016.

Average savings deposit balances increased by \$735.9 million or 18% during 2018 and \$363.5 million or 10% during 2017. Excluding approximately \$428.7 million of average savings deposits acquired in 2018, average savings deposits increased \$307.3 million or 8%. Excluding approximately \$322.5 million of average savings deposits acquired in 2017, average savings deposits increased \$41.0 million or 1%. At year-end 2018, saving deposits represented 54% of total deposits compared to 53% at year-end 2017. The percentage of our total average savings deposit balances attributable to branch banking offices in our Midwestern markets was 46% in 2018, 51% in 2017 and 59% in 2016.

Average time deposits increased \$156.5 million or 17% during 2018, and exclusive of approximately \$214.4 million of time deposits acquired in 2018, average time deposits decreased \$57.9 million or 6%. Average time deposits decreased \$100.5 million or 10% during 2017, and exclusive of approximately \$79.2 million of time deposits acquired in 2017, average time deposits decreased \$179.7 million or 18%. Excluding acquisitions, the decrease in time deposits during both years was attributable to a continued emphasis on growing our customer base in non-maturity deposit products instead of higher-cost certificates of deposit. The Banks priced time deposit products competitively to retain existing relationship-based deposit customers, but not to retain certificate of deposit only customers or to attract new customers with only certificate of deposit accounts. Additionally, due to the low interest rates, many certificate of deposit customers have continued to elect to place their maturing balances in checking or savings accounts. The percentage of our total average time deposit balances excluding brokered time deposits attributable to branch banking offices in our Midwestern markets was 59% during 2018, 46% during 2017 and 51% during 2016. Average brokered time deposits as a percentage of total average deposits were less than 1% during 2018, 1% during 2017 and 2% during 2016.

The following table sets forth the amount and maturities of time deposits of \$100,000 or more at December 31, 2018, in thousands:

TIME DEPOSITS \$100,000 AND OVER

	December 31, 2018
3 months or less	\$ 112,140
Over 3 months through 6 months	119,808
Over 6 months through 12 months	161,970
Over 12 months	191,756
	<u>\$ 585,674</u>

Short-Term Borrowings

Short-term borrowings, which Heartland defines as borrowings with an original maturity of one year or less, were as follows as of December 31, 2018, and 2017, in thousands:

	December 31, 2018	December 31, 2017
Securities sold under agreement to repurchase	\$ 80,124	\$ 107,957
Federal funds purchased	35,400	168,250
Advances from the FHLB	100,838	40,000
Other short-term borrowings	10,648	8,484
Total	<u>\$ 227,010</u>	<u>\$ 324,691</u>

Short-term borrowings generally include federal funds purchased, securities sold under agreements to repurchase, short-term FHLB advances and discount window borrowings from the Federal Reserve Bank. These funding alternatives are utilized in varying degrees depending on their pricing and availability. All of the Banks own FHLB stock in one of the Chicago, Dallas, Des Moines, San Francisco or Topeka FHLBs, enabling them to borrow funds from their respective FHLB for short- or long-term purposes under a variety of programs. As of December 31, 2018, the amount of short-term borrowings was \$227.0 million compared

to \$324.7 million at year-end 2017, a decrease of \$97.7 million or 30%. Short-term FHLB advances totaled \$100.8 million at December 31, 2018, compared to \$40.0 million at December 31, 2017, an increase of \$60.8 million or 152%. Federal funds purchased totaled \$35.4 million at December 31, 2018, and \$168.3 million at December 31, 2017, which was a decrease of \$132.9 million or 79%.

All of the banks provide retail repurchase agreements to their customers as a cash management tool, which sweep excess funds from demand deposit accounts into these agreements. This source of funding does not increase the bank's reserve requirements. Although the aggregate balance of these retail repurchase agreements is subject to variation, the account relationships represented by these balances are principally local. The balances of retail repurchase agreements were \$80.1 million at December 31, 2018, compared to \$108.0 million at December 31, 2017, a decrease of \$27.8 million or 26%.

Also included in short-term borrowings is a \$30.0 million revolving credit line Heartland has with an unaffiliated bank, primarily to provide liquidity to Heartland. During 2018, Heartland borrowed \$25.0 million on this revolving credit line and subsequently repaid the amount in full. No balance was outstanding on this line at December 31, 2018, and December 31, 2017.

The following table reflects information regarding our short-term borrowings as of December 31, 2018, 2017, and 2016, in thousands:

SHORT-TERM BORROWINGS

	As of and For the Years Ended December 31,		
	2018	2017	2016
Balance at end of period	\$ 227,010	\$ 324,691	\$ 306,459
Maximum month-end amount outstanding	229,890	324,691	399,490
Average month-end amount outstanding	152,391	182,846	287,857
Weighted average interest rate at year-end	1.96%	1.11%	0.29%
Weighted average interest rate for the year	1.19%	0.36%	0.40%

Other Borrowings

The outstanding balances of other borrowings, which Heartland defines as borrowings with an original maturity date of more than one year, are shown in the table below, net of discount and issuance costs amortization, in thousands, as of December 31, 2018, and 2017:

	December 31, 2018	December 31, 2017
Advances from the FHLB	\$ 3,399	\$ 6,702
Wholesale repurchase agreements	—	30,000
Trust preferred securities	130,913	121,886
Senior notes	5,000	11,000
Note payable to unaffiliated bank	58,417	33,667
Contracts payable for purchase of real estate and other assets	1,953	1,881
Subordinated notes	74,143	74,000
Other borrowings	1,080	5,875
Total	\$ 274,905	\$ 285,011

Other borrowings include all debt arrangements Heartland and its subsidiaries have entered into with original maturities that extend beyond one year, including long-term FHLB borrowings, borrowings under term notes, subordinated notes and senior notes, convertible debt and obligations under trust preferred capital securities. As of December 31, 2018, the amount of other borrowings was \$274.9 million, a decrease of \$10.1 million or 4% since year-end 2017.

Long-term FHLB borrowings with an original term beyond one year totaled \$3.4 million at December 31, 2018, compared to \$6.7 million at December 31, 2017, a decrease of \$3.3 million or 49%. Total long-term FHLB borrowings at December 31, 2018, had an average interest rate of 4.03% and an average remaining maturity of 53 months.

Structured wholesale repurchase agreements totaled \$0 and \$30.0 million at December 31, 2018, and December 31, 2017, respectively.

Heartland had \$130.9 million of trust preferred securities net of deferred issuance costs outstanding at December 31, 2018, compared to \$121.9 million net of deferred issuance costs at December 31, 2017, which is an increase of \$9.0 million or 7%. This increase includes \$8.2 million of trust preferred securities acquired at fair value in the First Bank Lubbock Bancshares, Inc. transaction. In the fourth quarter of 2017, Heartland repurchased and retired \$15.0 million of trust preferred securities from Heartland Statutory Trust IV, and a gain of \$1.2 million was recorded in other noninterest income in conjunction with this transaction.

A schedule of Heartland's trust preferred offerings outstanding as of December 31, 2018, excluding deferred issuance costs, is as follows, in thousands:

TRUST PREFERRED OFFERINGS

	Amount Issued	Issuance Date	Interest Rate	Interest Rate as of 12/31/18 ⁽¹⁾	Maturity Date	Callable Date
Heartland Financial Statutory Trust IV	\$ 10,310	03/17/2004	2.75% over LIBOR	5.54% ⁽²⁾	03/17/2034	03/17/2019
Heartland Financial Statutory Trust V	20,619	01/27/2006	1.33% over LIBOR	3.77% ⁽³⁾	04/07/2036	04/07/2019
Heartland Financial Statutory Trust VI	20,619	06/21/2007	6.75%	4.27% ⁽⁴⁾	09/15/2037	03/15/2019
Heartland Financial Statutory Trust VII	20,619	06/26/2007	1.48% over LIBOR	4.22% ⁽⁵⁾	09/01/2037	03/01/2019
Morrill Statutory Trust I	8,994	12/19/2002	3.25% over LIBOR	6.07% ⁽⁶⁾	12/26/2032	03/26/2019
Morrill Statutory Trust II	8,642	12/17/2003	2.85% over LIBOR	5.64% ⁽⁷⁾	12/17/2033	03/17/2019
Sheboygan Statutory Trust I	6,440	09/17/2003	2.95% over LIBOR	5.74%	09/17/2033	03/17/2019
CBNM Capital Trust I	4,359	09/10/2004	3.25% over LIBOR	6.04%	12/15/2034	03/15/2019
Citywide Capital Trust III	6,383	12/19/2003	2.80% over LIBOR	5.32%	12/19/2033	04/23/2019
Citywide Capital Trust IV	4,238	09/30/2004	2.20% over LIBOR	4.85%	09/30/2034	05/23/2019
Citywide Capital Trust V	11,523	05/31/2006	1.54% over LIBOR	4.33%	07/25/2036	03/15/2019
OCGI Statutory Trust III	2,989	06/27/2002	3.65% over LIBOR	6.44% ⁽⁸⁾	09/30/2032	03/30/2019
OCGI Capital Trust IV	5,286	09/23/2004	2.50% over LIBOR	5.29% ⁽⁹⁾	12/15/2034	03/15/2019
	<u>\$ 131,021</u>					

(1) Effective weighted average interest rate as of December 31, 2018, was 5.56% due to interest rate swap transactions as discussed in Note 12 to Heartland's consolidated financial statements.

(2) Effective interest rate as of December 31, 2018, was 5.01% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(3) Effective interest rate as of December 31, 2018, was 4.69% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(4) Effective interest rate as of December 31, 2018, was 3.87% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(5) Effective interest rate as of December 31, 2018, was 3.83% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(6) Effective interest rate as of December 31, 2018, was 4.92% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(7) Effective interest rate as of December 31, 2018, was 4.51% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(8) Effective interest rate as of December 31, 2018, was 5.53% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(9) Effective interest rate as of December 31, 2018, was 4.37% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

Heartland has a non-revolving credit facility with an unaffiliated bank to provide borrowing capacity not to exceed \$70.0 million. At December 31, 2018, \$58.4 million was outstanding on the note payable with an unaffiliated bank compared to \$33.7 million at December 31, 2017. This non-revolving credit facility is being amortized over five years, and the balance is due in April 2021. At December 31, 2018, Heartland had \$8.3 million of available borrowing capacity, of which no balance was outstanding.

Heartland also had senior notes totaling \$5.0 million and \$11.0 million at December 31, 2018, and 2017, respectively. These senior notes mature with respect to \$5.0 million in 2019. The senior notes are unsecured and bear interest at 5.00% per annum payable quarterly.

In 2014, Heartland issued \$75.0 million of subordinated notes with a maturity date of December 30, 2024. The notes were issued at par with an underwriting discount of \$1.1 million. The interest rate on the notes is fixed at 5.75% per annum payable semi-annually. The notes were sold to qualified institutional buyers, and the proceeds were used for general corporate purposes. For regulatory purposes, \$74.1 million of the subordinated notes qualified as Tier 2 capital as of December 31, 2018.

CAPITAL RESOURCES

The Federal Reserve has adopted capital adequacy guidelines that are used to assess the adequacy of capital in supervising a bank holding company. The federal banking agencies implemented final rules to establish a new comprehensive regulatory capital framework with a phase-in period beginning on January 1, 2015, and ending on January 1, 2019. The Final Rules implemented the third installment of the Basel Accords ("Basel III") regulatory capital reforms and changes required by the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act") and substantially amended the regulatory risk-based capital rules applicable to Heartland. Under Basel III, Heartland must hold a conservation buffer above the minimum capital requirement.

The most recent notification from the FDIC categorized Heartland and each of its banks as well capitalized under the regulatory framework for prompt corrective action. There are no conditions or events since that notification that management believes have changed the categorization of any of these entities.

Heartland's capital ratios are calculated in accordance with Federal Reserve Board instructions and are required regulatory financial measures. The following table illustrates Heartland's capital ratios and the Federal Reserve's current capital adequacy guidelines for the dates indicated, in thousands:

	Total Capital (to Risk- Weighted Assets)	Tier 1 Capital (to Risk- Weighted Assets)	Common Equity Tier 1 (to Risk- Weighted Assets)	Tier 1 Capital (to Average Assets)
December 31, 2018	13.72%	12.16%	10.66%	9.73%
Minimum capital requirement	8.00 %	6.00 %	4.50 %	4.00 %
Well capitalized requirement	10.00 %	8.00 %	6.50 %	5.00 %
Minimum capital requirement, including fully-phased in capital conservation buffer (2019)	10.50 %	8.50 %	7.00 %	N/A
Risk-weighted assets	\$ 8,756,130	\$ 8,756,130	\$ 8,756,130	N/A
Average assets	N/A	N/A	N/A	\$ 10,946,440
December 31, 2017	13.45%	11.70%	10.07%	9.20%
Minimum capital requirement	8.00 %	6.00 %	4.50 %	4.00 %
Well capitalized requirement	10.00 %	8.00 %	6.50 %	5.00 %
Minimum capital requirement, including fully-phased in capital conservation buffer (2019)	10.50 %	8.50 %	7.00 %	N/A
Risk-weighted assets	\$ 7,511,544	\$ 7,511,544	\$ 7,511,544	N/A
Average assets	N/A	N/A	N/A	\$ 9,552,227
December 31, 2016	14.01%	11.93%	10.09%	9.28%
Minimum capital requirement	8.00 %	6.00 %	4.50 %	4.00 %
Well capitalized requirement	10.00 %	8.00 %	6.50 %	5.00 %
Minimum capital requirement, including fully-phased in capital conservation buffer (2019)	10.50 %	8.50 %	7.00 %	N/A
Risk-weighted assets	\$ 6,335,807	\$ 6,335,807	\$ 6,335,807	N/A
Average assets	N/A	N/A	N/A	\$ 8,147,357

On February 23, 2018, Heartland completed the acquisition of Signature Bancshares, Inc., parent company of Signature Bank, headquartered in Minnetonka, Minnesota. Under the terms of the definitive merger agreement, Heartland acquired Signature

Bancshares, Inc. in a transaction valued at approximately \$61.4 million, of which \$7.8 million was cash, and the remainder was settled by delivery of 1,000,843 shares of Heartland common stock.

On May 18, 2018, Heartland completed the acquisition of Lubbock, Texas based First Bank Lubbock Bancshares, Inc., parent company of First Bank & Trust, and PrimeWest Mortgage Corporation, which is a wholly-owned subsidiary of First Bank & Trust. Under the terms of the definitive merger agreement, Heartland acquired First Bank Lubbock Bancshares, Inc. in a transaction valued at approximately \$189.9 million, of which \$5.5 million was cash, and the remainder was settled by delivery of 3,350,664 shares of Heartland common stock.

On February 28, 2017, Heartland completed the acquisition of Founders Bancorp, parent company of Founders Community Bank, based in San Luis Obispo, California. Based on Heartland's closing common stock price of \$49.55 per share on February 28, 2017, the aggregate consideration was approximately \$31.0 million, which was paid by delivery of 455,877 shares of Heartland common stock and cash of \$8.4 million.

During the first quarter of 2017, 333 shares of the Heartland Series D convertible preferred stock issued in the CIC Bancshares, Inc. acquisition were converted into 13,283 shares of Heartland common stock, and \$167,000 of the subordinated convertible notes assumed in the acquisition were converted into 6,128 shares of Heartland common stock. The remaining subordinated convertible debt balance of \$391,100 related to the CIC Bancshares, Inc., acquisition were converted to 14,353 shares of common stock during the third quarter of 2017.

On July 7, 2017, Heartland completed the acquisition of Citywide Banks of Colorado, Inc., parent company of Citywide Banks, headquartered in Aurora, Colorado. Simultaneous with the close, Citywide Banks merged into Heartland's Centennial Bank and Trust subsidiary. The aggregate consideration was approximately \$211.2 million, of which \$58.6 million was cash, and the remainder was settled by delivery of 3,216,161 shares of Heartland common stock.

On July 29, 2016, Heartland filed a universal shelf registration statement with the SEC to register debt or equity securities. This shelf registration statement, which was effective immediately, provides Heartland with the ability to raise capital, subject to market conditions and SEC rules and limitations, if Heartland's board of directors decides to do so. This registration statement permits Heartland, from time to time, in one or more public offerings, to offer debt securities, subordinated notes, common stock, preferred stock, rights or any combination of these securities. The amount of securities that may be offered is not specified in the registration statement, and the terms of any future offerings will be established at the time of the offering. The registration statement expires in July 2019.

Common stockholders' equity was \$1.33 billion at December 31, 2018, compared to \$990.5 million at year-end 2017. Book value per common share was \$38.44 at December 31, 2018, compared to \$33.07 at year-end 2017. Changes in common stockholders' equity and book value per common share are the result of earnings, dividends paid, stock transactions and mark-to-market adjustments for unrealized gains and losses on securities available for sale. Heartland's unrealized gains and losses on securities available for sale, net of applicable taxes, were at an unrealized loss of \$32.5 million at December 31, 2018, compared to an unrealized loss of \$24.3 million at December 31, 2017.

COMMITMENTS, CONTRACTUAL OBLIGATIONS AND OFF-BALANCE SHEET ARRANGMENTS

Commitments and Contractual Obligations

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since many of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. The Banks evaluate the creditworthiness of customers to which they extend a credit commitment on a case-by-case basis and may require collateral to secure any credit extended. The amount of collateral obtained is based upon management's credit evaluation of the counterparty. Collateral held varies but may include accounts receivable, inventory, property, plant and equipment and income-producing commercial properties. Standby letters of credit and financial guarantees written are conditional commitments issued by the Banks to guarantee the performance of a customer to a third party. Those guarantees are primarily issued to support public and private borrowing arrangements. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities to customers. At December 31, 2018, and December 31, 2017, commitments to extend credit aggregated \$2.47 billion and \$1.96 billion, and standby letters of credit aggregated \$71.9 million and \$55.5 million, respectively.

The following table summarizes our significant contractual obligations and other commitments as of December 31, 2018, in thousands:

CONTRACTUAL OBLIGATIONS AND OTHER COMMITMENTS

	Total	Payments Due By Period			
		Less than One Year	One to Three Years	Three to Five Years	More than Five Years
Contractual obligations:					
Time certificates of deposit	\$ 1,023,730	\$ 666,994	\$ 281,538	\$ 59,224	\$ 15,974
Long-term debt obligations	274,905	13,612	33,317	7,694	220,282
Operating lease obligations	34,328	5,776	10,595	5,538	12,419
Purchase obligations	8,598	4,808	3,387	403	—
Other long-term liabilities	4,146	650	630	112	2,754
Total contractual obligations	<u>\$ 1,345,707</u>	<u>\$ 691,840</u>	<u>\$ 329,467</u>	<u>\$ 72,971</u>	<u>\$ 251,429</u>
Other commitments:					
Lines of credit	\$ 2,471,466	\$ 1,729,816	\$ 300,475	\$ 157,059	\$ 284,116
Standby letters of credit	71,903	50,765	20,748	390	—
Total other commitments	<u>\$ 2,543,369</u>	<u>\$ 1,780,581</u>	<u>\$ 321,223</u>	<u>\$ 157,449</u>	<u>\$ 284,116</u>

On January 16, 2019, Heartland entered into a definitive merger agreement to acquire Blue Valley Ban Corp., and its wholly-owned subsidiary, Bank of Blue Valley, headquartered in Overland Park, Kansas. As of the announcement date, the transaction, in which all of the issued and outstanding shares of the Blue Valley Ban Corp. stock will be exchanged for shares of Heartland common stock, was valued at approximately \$93.9 million. Simultaneous with the closing of the transaction, Bank of Blue Valley will merge into Heartland's Kansas-based subsidiary, Morrill & Janes Bank and Trust Company, and the combined entity will operate as Bank of Blue Valley. The amount of the merger consideration is subject to fluctuations in the price of Heartland common stock and certain potential adjustments, and the transaction is subject to customary closing conditions. The transaction is expected to close in the second quarter of 2019 with a systems conversion planned for the third quarter of 2019. As of December 31, 2018, Bank of Blue Valley had total assets of approximately \$715.1 million, which included approximately \$561.3 million of gross loans outstanding, and approximately \$562.6 million of deposits. Because the merger agreement was signed on January 16, 2019, and the transaction is expected to close in the second quarter of 2019, the transaction has no impact on Heartland's 2018 consolidated financial statements.

On a consolidated basis, Heartland maintains a large balance of short-term securities that, when combined with cash from operations, Heartland believes are adequate to meet its funding obligations.

At the parent company level, routine funding requirements consist primarily of dividends paid to stockholders, debt service on revolving credit arrangements and trust preferred securities issuances, repayment requirements under other debt obligations and payments for acquisitions. The parent company obtains the funding to meet these obligations from dividends collected from its subsidiaries and the issuance of debt securities. At December 31, 2018, Heartland's revolving credit agreement with an unaffiliated bank provided a maximum borrowing capacity of \$30.0 million, of which no balance was outstanding. Heartland also has a non-revolving credit line with the same unaffiliated bank. At December 31, 2018, \$8.3 million was available on this non-revolving credit line. These credit agreements contain specific financial covenants, all of which Heartland was in compliance with as of December 31, 2018.

The ability of Heartland to pay dividends to its stockholders is dependent upon dividends paid by its subsidiaries. The Banks are subject to statutory and regulatory restrictions on the amount they may pay in dividends. To maintain acceptable capital ratios in the Heartland banks, certain portions of their retained earnings are not available for the payment of dividends. Retained earnings that could be available for the payment of dividends to Heartland under the regulatory capital requirements to remain well-capitalized totaled approximately \$311.3 million as of December 31, 2018.

We continue to explore opportunities to expand our footprint of independent community banks. In the current banking industry environment, we seek these opportunities for growth through acquisitions. We are primarily focused on possible acquisitions in the markets we currently serve, in which there would be an opportunity to grow market share, achieve efficiencies and provide

greater convenience for current customers. Future expenditures relating to expansion efforts, in addition to those identified above, cannot be estimated at this time.

Off-Balance Sheet Arrangements

We enter into mortgage banking derivatives, which are classified as free standing derivatives. These derivatives include interest rate lock commitments provided to customers to fund certain mortgage loans to be sold into the secondary market and forward commitments for the future delivery of such loans. We enter into forward commitments for the future delivery of residential mortgage loans when interest rate lock commitments are entered into in order to economically hedge the effect of future interest rate changes on the commitments to fund the loans as well as on the residential mortgage loans available for sale. See Note 12, "Derivative Financial Instruments," to the consolidated financial statements for additional information on our derivative financial instruments.

We also enter into financial instruments with off-balance sheet risk in the normal course of business to meet the financing needs of our customers. These financial instruments include commitments to extend credit and standby letters of credit, and are described in Note 15, "Commitments," to the consolidated financial statements for additional information on these commitments.

LIQUIDITY

Liquidity refers to our ability to maintain a cash flow that is adequate to meet maturing obligations and existing commitments, to withstand fluctuations in deposit levels, to fund operations and to provide for customers' credit needs. The liquidity of Heartland principally depends on cash flows from operating activities, investment in and maturity of assets, changes in balances of deposits and borrowings and its ability to borrow funds in the money or capital markets.

Management of investing and financing activities, and market conditions, determine the level and the stability of net interest cash flows. Management attempts to mitigate the impact of changes in market interest rates to the extent possible, so that balance sheet growth is the principal determinant of growth in net interest cash flows.

Our short-term borrowing balances are dependent on commercial cash management and smaller correspondent bank relationships and, as a result, will normally fluctuate. We believe these balances, on average, to be stable sources of funds; however, we intend to rely on deposit growth and additional FHLB borrowings as needed in the future.

In the event of short-term liquidity needs, the Banks may purchase federal funds from each other or from correspondent banks and may also borrow from the Federal Reserve Bank. Additionally, the Banks' FHLB memberships give them the ability to borrow funds for short- and long-term purposes under a variety of programs, and at December 31, 2018, Heartland had \$1.35 billion of borrowing capacity under these programs.

At December 31, 2018, Heartland's revolving credit agreement with an unaffiliated bank provided a maximum borrowing capacity of \$30.0 million, of which no balance was outstanding. Heartland also has a non-revolving credit facility with the same unaffiliated bank. At December 31, 2018, \$8.3 million was available on this non-revolving credit facility, of which no balance was outstanding.

Heartland has filed a universal shelf registration statement with the SEC that provides Heartland the ability to raise capital, subject to SEC rules and limitations, if Heartland's board of directors decides to do so. This registration statement expires in July 2019.

EFFECTS OF INFLATION

Consolidated financial data included in this report has been prepared in accordance with U.S. GAAP. Presently, these principles require reporting of financial position and operating results in terms of historical dollars, except for available for sale securities, trading securities, derivative instruments, certain impaired loans and other real estate which require reporting at fair value. Changes in the relative value of money due to inflation or recession are generally not considered.

In management's opinion, changes in interest rates affect the financial condition of a financial institution to a far greater degree than changes in the inflation rate. While interest rates are greatly influenced by changes in the inflation rate, they do not change at the same rate or in the same magnitude as the inflation rate. Rather, interest rate volatility is based on changes in the expected rate of inflation, as well as on changes in monetary and fiscal policies. A financial institution's ability to be relatively unaffected by changes in interest rates is a good indicator of its capability to perform in today's volatile economic environment. Heartland seeks to insulate itself from interest rate volatility by ensuring that rate-sensitive assets and rate-sensitive liabilities respond to changes in interest rates in a similar time frame and to a similar degree. See Item 7A of this Annual Report on Form 10-K for a discussion on the process Heartland utilizes to mitigate market risk.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is the risk of loss arising from adverse changes in market prices and rates. Heartland's market risk is comprised primarily of interest rate risk resulting from its core banking activities of lending and deposit gathering. Interest rate risk measures the impact on earnings from changes in interest rates and the effect on current fair market values of Heartland's assets, liabilities and off-balance sheet contracts. The objective is to measure this risk and manage the balance sheet to avoid unacceptable potential for economic loss.

Management continually develops and applies strategies to mitigate market risk. Exposure to market risk is reviewed on a regular basis by the asset/liability committees of Heartland's bank subsidiaries and, on a consolidated basis, by Heartland's executive management and board of directors. At least quarterly, a detailed review of the balance sheet risk profile is performed for Heartland and each of its bank subsidiaries. Included in these reviews are interest rate sensitivity analyses, which simulate changes in net interest income in response to various interest rate scenarios. These analyses consider current portfolio rates, existing maturities, repricing opportunities and market interest rates, in addition to prepayments and growth under different interest rate assumptions. Selected strategies are modeled prior to implementation to determine their effect on Heartland's interest rate risk profile and net interest income. Heartland believes its primary market risk exposures did not change significantly in 2018 when compared to 2017.

The core interest rate risk analysis utilized by Heartland examines the balance sheet under increasing and decreasing interest rate scenarios that are neither too modest nor too extreme. All rate changes are ramped over a 12-month horizon based upon a parallel shift in the yield curve and then maintained at those levels over the remainder of the simulation horizon. Using this approach, management is able to see the effect that both a gradual change of rates (year 1) and a rate shock (year 2 and beyond) could have on Heartland's net interest income. Starting balances in the model reflect actual balances on the "as of" date, adjusted for material and significant transactions. Pro-forma balances remain static. This methodology enables interest rate risk embedded within the existing balance sheet structure to be isolated from the interest rate risk often caused by growth in assets and liabilities. Due to the low interest rate environment, the simulations under a decreasing interest rate scenario were prepared using a 100 basis point shift in rates. The most recent reviews at December 31, 2018, and 2017, provided the results below, in thousands.

	2018		2017	
	Net Interest Margin	% Change From Base	Net Interest Margin	% Change From Base
<u>Year 1</u>				
Down 100 Basis Points	\$ 440,218	(2.67)%	\$ 341,575	(3.27)%
Base	\$ 452,284		\$ 353,131	
Up 200 Basis Points	\$ 471,792	4.31 %	\$ 356,452	0.94 %
<u>Year 2</u>				
Down 100 Basis Points	\$ 426,429	(5.72)%	\$ 324,951	(7.98)%
Base	\$ 459,871	1.68 %	\$ 357,124	1.13 %
Up 200 Basis Points	\$ 502,386	11.08 %	\$ 381,394	8.00 %

We use derivative financial instruments to manage the impact of changes in interest rates on our future interest income or interest expense. We are exposed to credit-related losses in the event of nonperformance by the counterparties to these derivative instruments, but believe we have minimized the risk of these losses by entering into the contracts with large, stable financial institutions. The estimated fair market values of these derivative instruments are presented in Note 12 to the consolidated financial statements.

We enter into financial instruments with off balance sheet risk in the normal course of business to meet the financing needs of our customers. These financial instruments include commitments to extend credit and standby letters of credit. These instruments involve, to varying degrees, elements of credit and interest rate risk in excess of the amount recognized in the consolidated balance sheets. Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract relating to the commitment. Commitments generally have fixed expiration dates and may require collateral from the borrower. Standby letters of credit are conditional commitments issued by Heartland to guarantee the performance of a customer to a third party up to a stated amount and with specified terms and conditions. These commitments to extend credit and standby letters of credit are not recorded on the balance sheet until the loan is made or the letter of credit is issued. Heartland periodically holds a securities trading portfolio that would also be subject to elements of market risk. These securities are carried on the balance sheet at fair value. At both December 31, 2018, and December 31, 2017, Heartland held no securities in its securities trading portfolio.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

HEARTLAND FINANCIAL USA, INC. CONSOLIDATED BALANCE SHEETS (Dollars in thousands, except per share data)

	Notes	As of December 31,	
		2018	2017
ASSETS			
Cash and due from banks	3	\$ 223,135	\$ 168,723
Interest bearing deposits with the Federal Reserve Bank and other banks and other short-term investments		50,495	27,280
Cash and cash equivalents		273,630	196,003
Time deposits in other financial institutions		4,672	9,820
Securities:			
Carried at fair value (cost of \$2,492,620 at December 31, 2018, and cost of \$2,248,181 at December 31, 2017)	4	2,450,709	2,216,753
Held to maturity, at cost (fair value of \$245,341 at December 31, 2018, and \$265,494 at December 31, 2017)	4	236,283	253,550
Other investments, at cost	4	28,396	22,563
Loans held for sale		119,801	44,560
Loans receivable:	5		
Held to maturity		7,407,697	6,391,464
Allowance for loan losses	5, 6	(61,963)	(55,686)
Loans receivable, net		7,345,734	6,335,778
Premises, furniture and equipment, net	7	187,418	172,324
Premises, furniture and equipment held for sale	2	7,258	1,977
Other real estate, net		6,153	10,777
Goodwill	2, 8	391,668	236,615
Core deposit intangibles and customer relationship intangibles, net	8	47,479	35,203
Servicing rights, net	8	31,072	25,857
Cash surrender value on life insurance		162,892	142,818
Other assets		114,841	106,141
TOTAL ASSETS		\$ 11,408,006	\$ 9,810,739
LIABILITIES AND EQUITY			
LIABILITIES:			
Deposits:	9		
Demand		\$ 3,264,737	\$ 2,983,128
Savings		5,107,962	4,240,328
Time		1,023,730	923,453
Total deposits		9,396,429	8,146,909
Deposits held for sale		106,409	—
Short-term borrowings	10	227,010	324,691
Other borrowings	11	274,905	285,011
Accrued expenses and other liabilities		78,078	62,671
TOTAL LIABILITIES		10,082,831	8,819,282
STOCKHOLDERS' EQUITY:	16, 17, 18		
Preferred stock (par value \$1 per share; authorized 17,604 shares; none issued or outstanding at both December 31, 2018, and December 31, 2017)		—	—
Series A Junior Participating preferred stock (par value \$1 per share; authorized 16,000 shares; none issued or outstanding at both December 31, 2018, and December 31, 2017)		—	—
Series C Senior Non-Cumulative Perpetual Preferred Stock (par value \$1 per share; 81,698 shares authorized at both December 31, 2018, and December 31, 2017, none issued or outstanding at both December 31, 2018, and December 31, 2017)		—	—
Series D Senior Non-Cumulative Perpetual Convertible Preferred Stock (par value \$1 per share; 3,000 shares authorized at both December 31, 2018, and December 31, 2017; no shares issued or outstanding at December 31, 2018, and 745 shares issued and outstanding at December 31, 2017)		—	938
Common stock (par value \$1 per share; 40,000,000 shares authorized at both December 31, 2018 and December 31, 2017; issued 34,477,499 shares at December 31, 2018, and 29,953,356 shares at December 31, 2017)		34,477	29,953
Capital surplus		743,095	503,709
Retained earnings		579,252	481,331
Accumulated other comprehensive loss		(31,649)	(24,474)
Treasury stock at cost (0 shares at both December 31, 2018, and December 31, 2017)		—	—
TOTAL STOCKHOLDERS' EQUITY		1,325,175	991,457
TOTAL LIABILITIES AND EQUITY		\$ 11,408,006	\$ 9,810,739

See accompanying notes to consolidated financial statements.

HEARTLAND FINANCIAL USA, INC.
CONSOLIDATED STATEMENTS OF INCOME
(Dollars in thousands, except per share data)

		For the Years Ended December 31,		
	Notes	2018	2017	2016
INTEREST INCOME:				
Interest and fees on loans	5	\$ 393,871	\$ 304,006	\$ 278,128
Interest on securities:				
Taxable		54,131	38,365	32,858
Nontaxable		14,120	19,698	15,085
Interest on federal funds sold		—	42	12
Interest on interest bearing deposits in other financial institutions		3,698	1,547	396
TOTAL INTEREST INCOME		465,820	363,658	326,479
INTEREST EXPENSE:				
Interest on deposits	9	35,667	18,279	15,939
Interest on short-term borrowings		1,696	678	1,202
Interest on other borrowings (includes \$179, \$1,290 and \$1,914 of interest expense related to derivatives reclassified from accumulated other comprehensive loss for the years ended December 31, 2018, 2017, and 2016, respectively)	12	14,503	14,393	14,672
TOTAL INTEREST EXPENSE		51,866	33,350	31,813
NET INTEREST INCOME		413,954	330,308	294,666
Provision for loan losses	5, 6	24,013	15,563	11,694
NET INTEREST INCOME AFTER PROVISION FOR LOAN LOSSES		389,941	314,745	282,972
NONINTEREST INCOME:				
Service charges and fees	21	48,706	39,183	31,590
Loan servicing income	8	7,292	5,636	4,501
Trust fees	21	18,393	15,818	14,845
Brokerage and insurance commissions	21	4,513	4,033	3,869
Securities gains, net (includes \$1,085, \$6,764, and \$11,518 of net security gains reclassified from accumulated other comprehensive income for the years ended December 31, 2018, 2017, and 2016, respectively)	4	1,085	6,973	11,340
Unrealized gain on equity securities, net	4	212	—	—
Net gains on sale of loans held for sale		21,450	22,251	39,634
Valuation allowance on servicing rights	8	(46)	21	(33)
Income on bank owned life insurance		2,793	2,772	2,275
Other noninterest income		4,762	5,335	5,580
TOTAL NONINTEREST INCOME		109,160	102,022	113,601
NONINTEREST EXPENSES:				
Salaries and employee benefits	14, 16	196,118	171,407	163,547
Occupancy	15	25,328	22,244	20,398
Furniture and equipment	7	12,529	11,061	10,245
Professional fees		39,811	32,879	27,676
FDIC insurance assessments		3,699	3,595	4,185
Advertising		9,565	7,229	6,448
Core deposit intangibles and customer relationship intangibles amortization	8	9,355	6,077	5,630
Other real estate and loan collection expenses		3,038	2,461	2,443
Loss on sales/valuations of assets, net		2,208	2,475	1,478
Restructuring expenses		2,564	—	—
Other noninterest expenses		49,673	38,247	37,618
TOTAL NONINTEREST EXPENSES		353,888	297,675	279,668
INCOME BEFORE INCOME TAXES		145,213	119,092	116,905
Income taxes (includes \$165, \$2,042, and \$3,582 of income tax expense reclassified from accumulated other comprehensive income (loss) for the years ended December 31, 2018, 2017, and 2016, respectively)	13	28,215	43,820	36,556
NET INCOME		116,998	75,272	80,349
Preferred dividends		(39)	(58)	(292)
Interest expense on convertible preferred debt		—	12	51
NET INCOME AVAILABLE TO COMMON STOCKHOLDERS		\$ 116,959	\$ 75,226	\$ 80,108
EARNINGS PER COMMON SHARE - BASIC	1	\$ 3.54	\$ 2.67	\$ 3.26
EARNINGS PER COMMON SHARE - DILUTED	1	\$ 3.52	\$ 2.65	\$ 3.22
CASH DIVIDENDS DECLARED PER COMMON SHARE		\$ 0.59	\$ 0.51	\$ 0.50

See accompanying notes to consolidated financial statements.

HEARTLAND FINANCIAL USA, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Dollars in thousands)

	For the Years Ended December 31,		
	2018	2017	2016
NET INCOME	\$ 116,998	\$ 75,272	\$ 80,349
OTHER COMPREHENSIVE INCOME (LOSS)			
Securities:			
Net change in unrealized gain (loss) on securities	(9,568)	23,778	(31,271)
Reclassification adjustment for net gains realized in net income	(1,085)	(6,764)	(11,518)
Net change in non-credit related other than temporary impairment	—	—	7
Income taxes	2,731	(6,670)	16,738
Other comprehensive income (loss) on securities	(7,922)	10,344	(26,044)
Derivatives used in cash flow hedging relationships:			
Net change in unrealized gain (loss) on derivatives	816	210	(209)
Reclassification adjustment for net losses on derivatives realized in net income	431	1,290	1,914
Income taxes	(220)	(765)	(680)
Other comprehensive income on cash flow hedges	1,027	735	1,025
Other comprehensive income (loss)	(6,895)	11,079	(25,019)
TOTAL COMPREHENSIVE INCOME	\$ 110,103	\$ 86,351	\$ 55,330

See accompanying notes to consolidated financial statements.

HEARTLAND FINANCIAL USA, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(Dollars in thousands, except per share data)

	Heartland Financial USA, Inc. Stockholders' Equity						
	Preferred Stock	Common Stock	Capital Surplus	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Equity
Balance at January 1, 2016	\$ 81,698	\$ 22,436	\$ 216,436	\$ 348,630	\$ (6,027)	\$ —	\$ 663,173
Comprehensive income (loss)				80,349	(25,019)		55,330
Cash dividends declared:							
Series C Preferred, \$2.50 per share				(168)			(168)
Series D Preferred, \$52.50 per share				(124)			(124)
Common, \$0.50 per share				(12,578)			(12,578)
Redemption of Series C preferred stock	(81,698)						(81,698)
Issuance of Series D preferred stock	3,777						3,777
Redemption of Series D preferred stock	(2,420)						(2,420)
Purchase of 82,601 shares of treasury stock						(3,719)	(3,719)
Issuance of 3,766,837 shares of common stock		3,684	108,462			3,719	115,865
Stock based compensation			3,478				3,478
Balance at December 31, 2016	\$ 1,357	\$ 26,120	\$ 328,376	\$ 416,109	\$ (31,046)	\$ —	\$ 740,916
Balance at January 1, 2017	\$ 1,357	\$ 26,120	\$ 328,376	\$ 416,109	\$ (31,046)	\$ —	\$ 740,916
Comprehensive income (loss)				75,272	11,079		86,351
Reclassification of certain income tax effects from accumulated other comprehensive income (loss)				4,507	(4,507)		—
Series D Preferred, \$70.00 per share				(58)			(58)
Common, \$0.51 per share				(14,499)			(14,499)
Redemption of Series D preferred stock	(419)						(419)
Purchase of 13,066 shares of treasury stock						(625)	(625)
Issuance of 3,846,493 shares of common stock		3,833	171,265			625	175,723
Stock based compensation			4,068				4,068
Balance at December 31, 2017	\$ 938	\$ 29,953	\$ 503,709	\$ 481,331	\$ (24,474)	\$ —	\$ 991,457
Balance at January 1, 2018	\$ 938	\$ 29,953	\$ 503,709	\$ 481,331	\$ (24,474)	\$ —	\$ 991,457
Comprehensive income (loss)				116,998	(6,895)		110,103
Reclassification of unrealized net gain on equity securities				280	(280)		—
Cash dividends declared:							
Series D Preferred, \$52.50 per share				(39)			(39)
Common, \$0.59 per share				(19,318)			(19,318)
Conversion of Series D preferred stock	(938)						(938)
Purchase of 1,761 shares of treasury stock						(97)	(97)
Issuance of 4,525,904 shares of common stock		4,524	234,881			97	239,502
Stock based compensation			4,505				4,505
Balance at December 31, 2018	\$ —	\$ 34,477	\$ 743,095	\$ 579,252	\$ (31,649)	\$ —	\$ 1,325,175

See accompanying notes to consolidated financial statements.

HEARTLAND FINANCIAL USA, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Dollars in thousands)

	For the Years Ended December 31,		
	2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	\$ 116,998	\$ 75,272	\$ 80,349
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	30,791	30,144	30,757
Provision for loan losses	24,013	15,563	11,694
Net amortization of premium on securities	25,142	26,961	32,101
Provision for deferred taxes	2,760	13,263	7,162
Securities gains, net	(1,085)	(6,973)	(11,340)
Unrealized gain on equity securities, net	(212)	—	—
Stock based compensation	4,505	4,068	3,478
Loss on sales/valuations of assets, net	2,208	2,475	1,478
Loans originated for sale	(646,019)	(728,681)	(1,119,817)
Proceeds on sales of loans held for sale	714,259	760,484	1,160,079
Net gains on sales of loans held for sale	(16,404)	(15,102)	(26,740)
Increase in accrued interest receivable	(3,368)	(593)	(779)
Decrease in prepaid expenses	2,364	576	194
Increase (decrease) in accrued interest payable	(2)	34	(835)
Gain on extinguishment of debt	—	(1,280)	—
Capitalization of servicing rights	(5,160)	(7,358)	(12,894)
Valuation adjustment on servicing rights	46	(21)	33
Net excess tax benefit from stock based compensation	674	1,246	374
Other, net	(8,760)	(14,148)	(6,769)
NET CASH PROVIDED BY OPERATING ACTIVITIES	242,750	155,930	148,525
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of time deposits in other financial institutions	(1,000)	—	—
Proceeds from the sale of securities available for sale	727,895	1,456,750	909,942
Proceeds from the sale of securities held to maturity	—	—	4,557
Proceeds from the sale, maturity of and principal paydowns on other investments	1,618	2,790	5,673
Proceeds from the redemption of time deposits in other financial institutions	8,767	12,171	—
Proceeds from the maturity of and principal paydowns on securities available for sale	237,747	222,656	188,071
Proceeds from the maturity of and principal paydowns on securities held to maturity	15,953	10,621	9,683
Proceeds from the maturity of and principal paydowns on time deposits in other financial institutions	6,993	34,904	250
Purchase of securities available for sale	(1,197,822)	(1,816,564)	(1,335,244)
Purchase of other investments	(3,731)	(1,116)	(2,250)
Net (increase) decrease in loans	(132,401)	22,109	222,874
Purchase of bank owned life insurance policies	(2,228)	(2,000)	—
Proceeds from bank owned life insurance policies	—	—	111
Proceeds from sale of mortgage servicing rights	—	6,290	—
Capital expenditures	(12,742)	(8,113)	(10,327)
Net cash and cash equivalents received in acquisitions	212,197	71,089	8,084
Proceeds from sale of equipment	2,972	4,867	947
Proceeds on sale of OREO and other repossessed assets	11,562	10,844	4,484
NET CASH PROVIDED (USED) BY INVESTING ACTIVITIES	(124,220)	27,298	6,855

HEARTLAND FINANCIAL USA, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS, CONTINUED
(Dollars in thousands)

	For the Years Ended December 31,		
	2018	2017	2016
CASH FLOWS FROM FINANCING ACTIVITIES:			
Net increase in demand deposits	8,052	154,394	123,613
Net increase (decrease) in savings accounts	318,697	(166,733)	86,319
Net decrease in time deposit accounts	(221,980)	(79,733)	(416,455)
Proceeds on short-term revolving credit line	25,000	20,000	—
Repayments on short-term revolving credit line	(25,000)	(20,000)	—
Net decrease in short-term borrowings	(158,519)	(25,847)	(15,921)
Proceeds from short term FHLB advances	462,940	251,139	329,566
Repayments of short term FHLB advances	(402,102)	(241,505)	(336,850)
Proceeds from other borrowings	30,131	—	40,000
Repayments of other borrowings	(59,157)	(9,645)	(21,636)
Redemption of preferred stock	—	—	(81,698)
Payment for the redemption of debt	—	(13,800)	—
Purchase of treasury stock	(97)	(625)	(3,719)
Proceeds from issuance of common stock	489	963	54,196
Dividends paid	(19,357)	(14,557)	(12,870)
NET CASH USED BY FINANCING ACTIVITIES	(40,903)	(145,949)	(255,455)
Net increase (decrease) in cash and cash equivalents	77,627	37,279	(100,075)
Cash and cash equivalents at beginning of year	196,003	158,724	258,799
CASH AND CASH EQUIVALENTS AT END OF PERIOD	\$ 273,630	\$ 196,003	\$ 158,724
Supplemental disclosures:			
Cash paid for income/franchise taxes	\$ 17,085	\$ 15,817	\$ 24,652
Cash paid for interest	\$ 51,868	\$ 33,316	\$ 32,648
Loans transferred to OREO	\$ 7,866	\$ 5,293	\$ 2,315
Transfer of premises from premises, furniture and equipment held for sale to premises, furniture and equipment, net	\$ 81	\$ 2,372	\$ 3,440
Purchases of securities available for sale, accrued, not paid	\$ —	\$ 1,017	\$ —
Transfer of premises from premises, furniture and equipment, net to premises, furniture and equipment held for sale	\$ 7,660	\$ 3,442	\$ —
Sales of securities available for sale, accrued, not settled	\$ —	\$ —	\$ 250
Conversion of convertible debt to common stock	\$ —	\$ 558	\$ 1,442
Conversion/redemption of Series D preferred stock to common stock	\$ 938	\$ 419	\$ 2,420
Loans transferred to held for sale	\$ 96,027	\$ —	\$ —
Deposits transferred to held for sale	\$ 106,409	\$ —	\$ —
Stock consideration granted for acquisitions	\$ 238,075	\$ 175,196	\$ 57,433

See accompanying notes to consolidated financial statements.

HEARTLAND FINANCIAL USA, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

ONE
SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations - Heartland Financial USA, Inc. ("Heartland") is a multi-bank holding company with locations in Iowa, Illinois, Wisconsin, New Mexico, Arizona, Colorado, Montana, Minnesota, Kansas, Missouri, Texas and California. The principal services of Heartland, which are provided through its subsidiaries, are FDIC-insured deposit accounts and related services, and loans to businesses and individuals. The loans consist primarily of commercial and commercial real estate, agricultural and agricultural real estate, residential real estate and consumer loans.

Principles of Presentation - The consolidated financial statements include the accounts of Heartland and its subsidiaries: Dubuque Bank and Trust Company; Illinois Bank & Trust; Wisconsin Bank & Trust; New Mexico Bank & Trust; Arizona Bank & Trust; Rocky Mountain Bank; Citywide Banks; Minnesota Bank & Trust; Morrill & Janes Bank and Trust Company; Premier Valley Bank; First Bank & Trust; Citizens Finance Parent Co.; PrimeWest Mortgage Corporation; DB&T Insurance, Inc.; DB&T Community Development Corp.; Heartland Community Development, Inc.; Heartland Financial USA, Inc. Insurance Services; Citizens Finance Co.; Citizens Finance of Illinois Co.; Heartland Financial Statutory Trust IV; Heartland Financial Statutory Trust V; Heartland Financial Statutory Trust VI; Heartland Financial Statutory Trust VII; Morrill Statutory Trust I; Morrill Statutory Trust II; Sheboygan Statutory Trust I, CBNM Capital Trust I, Citywide Capital Trust III, Citywide Capital Trust IV, Citywide Capital Trust V, OCGI Statutory Trust III and OCGI Capital Trust IV. All of Heartland's subsidiaries are wholly-owned as of December 31, 2018.

The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and prevailing practices within the banking industry. In preparing such financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the balance sheets and revenues and expenses for the years then ended. Actual results could differ significantly from those estimates. A material estimate that is particularly susceptible to significant change relates to the determination of the allowance for loan losses.

Business Combinations - Heartland applies the acquisition method of accounting in accordance with the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 805, Business Combinations. Under the acquisition method, Heartland recognizes assets acquired, including identified intangible assets, and the liabilities assumed in acquisitions at fair value as of the acquisition date, with the acquisition-related transaction costs expensed in the period incurred. Determining the fair value of assets acquired and liabilities assumed often involves estimates based on third-party valuations, such as appraisals, or internal valuations based on discounted cash flow analyses or other valuation techniques that may include estimates of attrition, inflation, asset growth rates, discount rates, multiples of earnings or other relevant factors. In addition, the determination of the useful lives over which an intangible asset will be amortized is subjective.

Cash and Cash Equivalents - For purposes of reporting cash flows, cash and cash equivalents include cash on hand, amounts due from banks, interest bearing deposits held at the Federal Reserve Bank, federal funds sold to other banks and other short-term investments. Generally, federal funds are purchased and sold for one-day periods.

Trading Securities - Trading securities represent those securities Heartland intends to actively trade and are stated at fair value with changes in fair value reflected in noninterest income. Heartland had \$0 of trading securities at both December 31, 2018 and 2017.

Debt Securities Available for Sale and Equity Securities - Available for sale securities consist of those securities not classified as held to maturity or trading, which management intends to hold for indefinite periods of time or that may be sold in response to changes in interest rates, prepayments or other similar factors. Available for sale securities are stated at fair value with any unrealized gain or loss, net of applicable income tax, reported as a separate component of stockholders' equity. Security premiums and discounts are amortized/accreted using the interest method over the period from the purchase date to the expected maturity or call date of the related security. Declines in the fair value of investment securities available for sale (with certain exceptions for debt securities noted below) that are deemed to be other-than-temporary are charged to earnings as a realized loss, and a new cost basis for the securities is established. In evaluating whether impairment is other-than-temporary, Heartland considers the length of time and extent to which the fair value has been less than cost, the financial condition and near-term prospects of the issuer, and the intent and ability of Heartland to retain its investment in the issuer for a period of time sufficient to allow for any anticipated recovery in fair value in the near term. Declines in the fair value of debt securities below amortized cost are deemed to be other-than-temporary in circumstances where: (1) Heartland has the intent to sell a security; (2) it is more likely than not that Heartland

will be required to sell the security before recovery of its amortized cost basis; or (3) Heartland does not expect to recover the entire amortized cost basis of the security. If Heartland intends to sell a security or if it is more likely than not that Heartland will be required to sell the security before recovery, an other-than-temporary impairment write-down is recognized in earnings equal to the difference between the security's amortized cost basis and its fair value. If Heartland does not intend to sell the security and it is not more likely than not that it will be required to sell the security before recovery, the other-than-temporary impairment write-down is separated into an amount representing credit loss, which is recognized in noninterest income, and an amount related to all other factors, which is recognized in other comprehensive income. Realized securities gains or losses on securities sales (using specific identification method) and declines in value judged to be other-than-temporary are included in impairment loss on securities in the consolidated statements of income.

Equity securities include Community Reinvestment Act mutual funds with readily determinable fair values and are carried at fair value. Certain equity securities do not have readily determinable fair values, such as Federal Reserve Bank stock and Federal Home Loan Bank stock, which are held for debt and regulatory purposes and are carried at cost minus impairment, if any, plus or minus changes resulting from observable price changes for the identical or similar investment of the same issuer. Heartland has not recorded any impairment or other adjustments to the carrying amount of these investments during 2018.

Securities Held to Maturity - Securities which Heartland has the ability and positive intent to hold to maturity are classified as held to maturity. Such securities are stated at amortized cost, adjusted for premiums and discounts that are amortized/accreted using the interest method over the period from the purchase date to the expected maturity or call date of the related security. Unrealized losses determined to be other-than-temporary are charged to noninterest income.

Loans - Interest on loans is accrued and credited to income based primarily on the principal balance outstanding. Loans are considered past due if the required principal and interest payments have not been received as of the date such payments were due. Heartland's policy is to discontinue the accrual of interest income on any loan when, in the opinion of management, there is a reasonable doubt as to the timely collection of the interest and principal, normally when a loan is 90 days past due. When interest accruals are deemed uncollectible, interest credited to income in the current year is reversed and interest accrued in prior years is charged to the allowance for loan losses. A loan can be restored to accrual status if the borrower has resumed paying the full amount of the scheduled contractual interest and principal payments on the loan, and (1) all principal and interest amounts contractually due (including arrearages) are reasonably assured of repayment within a reasonable period of time, and (2) that there is a sustained period of repayment performance (generally a minimum of six months) by the borrower in accordance with the scheduled contractual terms.

Under Heartland's credit policies, a loan is impaired when, based on current information and events, it is probable that Heartland will be unable to collect all amounts due according to the contractual terms of the agreement. Loan impairment is measured based on the present value of expected future cash flows discounted at the loan's effective interest rate, except where more practical, at the observable market price of the loan or the fair value of the collateral if the loan is collateral dependent.

Net nonrefundable loan origination fees and certain direct costs associated with the lending process are deferred and recognized as a yield adjustment over the life of the related loan.

Acquired Loans - The FASB ASC Topic 310-30 establishes accounting standards for acquired loans with deteriorated credit quality. Heartland reviews acquired loans for differences between contractual cash flows and cash flows expected to be collected from initial investment in the acquired loans to determine if those differences are attributable, at least in part, to credit quality. If those differences are attributable to credit quality, the contractually required payments received in excess of the amount of its cash flows expected at acquisition, or nonaccretable discount, is not accreted into income. FASB ASC 310-30 requires that the excess of all cash flows expected at acquisition over the initial investment in the loan be recognized as interest income using the interest method over the term of the loan. This excess is referred to as accretable discount and is recorded as a reduction of the loan balance.

When a loan is paid off, the excess of any cash received over the net investment is recorded as interest income. In addition to the amount of purchase discount that is recognized at that time, income may include interest owed by the borrower prior to the acquisition of the loan, interest collected if on nonperforming status, prepayment fees and other loan fees.

At acquisition, for purchased loans not subject to ASC 310-30, the purpose of the loan (e.g., business, agricultural or personal), the type of borrower (e.g., business or individual) and the type of collateral for the loan (e.g., commercial real estate, residential real estate, general business assets or unsecured) of each loan are considered in order to assign purchased loans into one of the following five loan pools: commercial, commercial real estate, agricultural and agricultural real estate, residential real estate and consumer. These five pools are separately maintained and tracked for each acquisition, and they are consistent with the five loan categories presented in Note 5, "Loans."

For purchased loans not subject to ASC 310-30, the discount, if any, representing the excess of the amount of reasonably estimable and probable discounted future cash collections over the purchase price, is accreted into interest income using the interest method over the weighted average remaining contractual life of the loan pool. Because Heartland uses the pool method as described above, no adjustment is made to the discount of an individual loan on the specific date of a credit event with respect to such loan. Additionally, the discount is not accreted on nonperforming loans.

Loans not subject to ASC 310-30 migrate from the purchased loan pools to the regular loan portfolio when the borrower requests to refinance the loan prior to maturity or renews the loan at maturity, and, in either event, signs a new loan agreement. In conjunction with the refinancing or renewal process, the new loan is evaluated in accordance with Heartland's underwriting standards, and a credit decision is made with respect to whether the new loan should be extended.

Troubled Debt Restructured Loans - Loans are considered troubled debt restructured loans ("TDR") if concessions have been granted to borrowers that are experiencing financial difficulty. The concessions granted generally involve the modification of terms of the loan, such as changes in payment schedule or interest rate, which generally would not otherwise be considered. TDRs can involve loans remaining on nonaccrual, moving to nonaccrual, or continuing on accrual status, depending on the individual facts and circumstances of the borrower. Nonaccrual TDRs are included and treated consistently with all other nonaccrual loans. In addition, all accruing TDRs are reported and accounted for as impaired loans. Generally, TDRs remain on nonaccrual until the customer has attained a sustained period of repayment performance under the modified loan terms (generally a minimum of six months). However, performance prior to the restructuring, or significant events that coincide with the restructuring, are considered in assessing whether the borrower can meet the new terms and whether the loan should be returned to or maintained on accrual status. If the borrower's ability to meet the revised payment schedule is not reasonably assured, the loan remains on nonaccrual status.

A loan that is a TDR that has an interest rate consistent with market rates at the time of restructuring and is in compliance with its modified terms in the calendar year after the year in which the restructuring took place is no longer considered a TDR but remains an impaired loan. To be considered in compliance with its modified terms, a loan that is a TDR must be in accrual status and must be current or less than 30 days past due under the modified repayment terms; however, the loan will continue to be considered impaired. A loan that has been modified at a below market rate will remain classified as a TDR and an impaired loan. If the borrower's financial conditions improve to the extent that the borrower qualifies for a new loan with market terms, the new loan will not be considered a TDR or impaired if Heartland's credit analysis shows the borrower's ability to perform under scheduled terms.

Loans Held for Sale - Loans held for sale are stated at the lower of cost or fair value on an aggregate basis. Gains or losses on sales are recorded in noninterest income. Direct loan origination costs and fees are deferred at origination of the loan. These deferred costs and fees are recognized in noninterest income as part of the gain or loss on sales of loans upon sale of the loan.

Prior to December 31, 2018, Heartland entered into an agreement with a third-party to sell the loan portfolios of its consumer finance subsidiaries, Citizens Finance Co. and Citizens Finance of Illinois Co. The loan portfolios were classified as held for sale and recorded at fair value at December 31, 2018.

Deposits Held for Sale - Deposits held for sale are stated at the lower of cost or fair value on an aggregate basis.

Mortgage Servicing and Transfers of Financial Assets - Heartland regularly sells residential mortgage loans to others, primarily government sponsored entities, on a non-recourse basis. Sold loans are not included in the accompanying consolidated balance sheets. Heartland generally retains the right to service the sold loans for a fee. At December 31, 2018 and 2017, Heartland was servicing mortgage loans primarily for government sponsored entities with aggregate unpaid principal balances of \$4.10 billion and \$3.56 billion, respectively.

Allowance for Loan Losses - The allowance for loan losses is maintained at a level estimated by management to provide for known and inherent risks in the loan portfolios. The allowance is based upon a continuing review of past loan loss experience, current economic conditions, volume growth, the underlying collateral value of the loans and other relevant factors. Loans which are deemed uncollectible are charged off and deducted from the allowance. Provisions for loan losses and recoveries on previously charged-off loans are added to the allowance.

Reserve for Unfunded Commitments - This reserve is maintained at a level that, in the opinion of management, is appropriate to absorb probable losses associated with Heartland's commitment to lend funds under existing agreements such as letters or lines of credit. Management determines the appropriateness of the reserve for unfunded commitments based upon reviews of delinquencies, current economic conditions, the risk characteristics of the various categories of commitments and other relevant

factors. The reserve is based on estimates, and ultimate losses may vary from the current estimates. These estimates are evaluated on a regular basis and, as adjustments become necessary, they are reported in earnings in the periods in which they become known. Draws on unfunded commitments that are considered uncollectible at the time funds are advanced are charged to the allowance. Provisions for unfunded commitment losses are added to the reserve for unfunded commitments, which is included in the Accrued Expenses and Other Liabilities section of the consolidated balance sheets.

Premises, Furniture and Equipment, net - Premises, furniture and equipment are stated at cost less accumulated depreciation. The provision for depreciation of premises, furniture and equipment is determined by straight-line and accelerated methods over the estimated useful lives of 18 to 39 years for buildings, 15 years for land improvements and 3 to 7 years for furniture and equipment.

Premises, Furniture and Equipment held for sale - Premises, furniture and equipment are stated at the estimated fair value less disposal costs. Subsequent write-downs and gains or losses on the sales are recorded to loss on sales/valuation of assets, net.

Other Real Estate - Other real estate represents property acquired through foreclosures and settlements of loans. Property acquired is recorded at the estimated fair value of the property less disposal costs. The excess of carrying value over fair value less disposal costs is charged against the allowance for loan losses. Subsequent write downs estimated on the basis of later valuations and gains or losses on sales are charged to loss on sales/valuation of assets, net. Expenses incurred in maintaining such properties are charged to other real estate and loan collection expenses.

Goodwill - Goodwill represents the excess of the purchase price of acquired subsidiaries' net assets over their fair value at the purchase date. Heartland assesses goodwill for impairment annually, and more frequently if events occur which may indicate possible impairment, and assesses goodwill at the reporting unit level, also giving consideration to overall enterprise value as part of that assessment. In evaluating goodwill for impairment, Heartland first assesses qualitative factors to determine whether it is more likely than not (that is, a likelihood of more than 50%) that the fair value of a reporting unit is less than its carrying amount. If Heartland concludes that it is more likely than not that the fair value of a reporting unit is more than its carrying value, then no further testing of goodwill assigned to the reporting unit is required. However, if Heartland concludes that it is more likely than not that the fair value of a reporting unit is less than its carrying value, then Heartland performs a two-step goodwill impairment test to identify potential goodwill impairment and measure the amount of goodwill impairment to recognize, if any. In the first step, the fair value of a reporting unit is compared to its carrying amount, including goodwill. If the fair value of the reporting unit exceeds its carrying amount, goodwill is not considered impaired and it is not necessary to continue to step two of the impairment process. If the fair value of the reporting unit is less than the carrying amount, step two is performed. In step two, the implied fair value of goodwill is compared to the carrying value of the reporting unit's goodwill. The implied fair value of goodwill is computed as a residual value after allocating the fair value of the reporting unit to its assets and liabilities. Heartland estimates the fair value of its reporting units using market multiples of comparable entities, including recent transactions, or a combination of market multiples and discounted cash flow methodology. These methods incorporate assumptions specific to the entity, such as the use of financial forecasts.

Core Deposit Intangibles and Customer Relationship Intangibles, Net - Core deposit intangibles are amortized over 8 to 18 years on an accelerated basis. Customer relationship intangibles are amortized over 22 years on an accelerated basis. Annually, Heartland reviews these intangible assets for events or circumstances that may indicate a change in the recoverability of the underlying basis.

Servicing Rights, Net - Mortgage and commercial servicing rights associated with loans originated and sold, where servicing is retained, are initially capitalized at fair value and recorded on the consolidated statements of income as a component of gains on sale of loans held for sale. The values of these capitalized servicing rights are amortized as an offset to the loan servicing income earned in relation to the servicing revenue expected to be earned. Heartland acquired the right to service mortgage loans totaling \$640.7 million and a fair value of \$7.0 million with the First Bank Lubbock Bancshares, Inc. transaction that closed on May 18, 2018.

The carrying values of these rights are reviewed quarterly for impairment based on the calculation of their fair value as performed by an outside third party. For purposes of measuring impairment, the rights are stratified into certain risk characteristics including loan type and loan term. As of December 31, 2018, a valuation allowance of \$20,000 was required on Heartland's mortgage servicing rights with an original term of 15 years, and a valuation allowance of \$38,000 was required on Heartland's mortgage servicing rights with an original term of 30 years. No valuation allowance was required on Heartland's mortgage servicing rights as of December 31, 2017. A valuation allowance of \$0 and \$12,000, was required as of December 31, 2018, and 2017, respectively, for Heartland's commercial servicing rights with an original term of greater than 20 years.

Cash Surrender Value on Life Insurance - Heartland and its subsidiaries have purchased life insurance policies on the lives of certain officers. The one-time premiums paid for the policies, which coincide with the initial cash surrender value, are recorded as an asset. Increases or decreases in the cash surrender value, other than proceeds from death benefits, are recorded as noninterest income in income on bank owned life insurance. Proceeds from death benefits first reduce the cash surrender value attributable to the individual policy and then any additional proceeds are recorded in other noninterest income.

Income Taxes - Heartland and its subsidiaries file a consolidated federal income tax return and separate or combined income or franchise tax returns as required by the various states. Heartland recognizes certain income and expenses in different time periods for financial reporting and income tax purposes. The provision for deferred income taxes is based on an asset and liability approach and represents the change in deferred income tax accounts during the year, including the effect of enacted tax rate changes. A valuation allowance is provided to reduce deferred tax assets if their expected realization is deemed not to be more likely than not.

A tax position is recognized as a benefit only if it is "more likely than not" that the tax position would be sustained in a tax examination. The amount recognized is the largest amount of tax benefit that is greater than 50% likely of being realized on examination. Heartland recognizes interest and penalties related to income tax matters in income tax expense.

Derivative Financial Instruments - Heartland uses derivative financial instruments as part of its interest rate risk management, which includes interest rate swaps, certain interest rate lock commitments and forward sales of securities related to mortgage banking activities. FASB ASC Topic 815 establishes accounting and reporting standards for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging activities. As required by ASC 815, Heartland records all derivatives on the consolidated balance sheets at fair value. The accounting for changes in the fair value of derivatives depends on the intended use of the derivative and the resulting designation. Derivatives used to hedge the exposure to variability in expected future cash flows, or other types of forecasted transactions, are considered cash flow hedges. To qualify for hedge accounting, Heartland must comply with the detailed rules and documentation requirements at the inception of the hedge, and hedge effectiveness is assessed at inception and periodically throughout the life of each hedging relationship. Hedge ineffectiveness, if any, is measured periodically throughout the life of the hedging relationship.

For derivatives designated as cash flow hedges, the effective portion of changes in the fair value of the derivative is initially reported in other comprehensive income (loss) and subsequently reclassified to interest income or expense when the hedged transaction affects earnings, while the ineffective portion of changes in the fair value of the derivative, if any, is recognized immediately in other noninterest income. Heartland assesses the effectiveness of each hedging relationship by comparing the cumulative changes in cash flows of the derivative hedging instrument with the cumulative changes in cash flows of the designated hedged item or transaction. No component of the change in the fair value of the hedging instrument is excluded from the assessment of hedge effectiveness.

Heartland has fair value hedging relationships at December 31, 2018. Heartland uses hedge accounting in accordance with ASC 815, with the unrealized gains and losses, representing the change in fair value of the derivative and the change in fair value of the risk being hedged on the related loan, being recorded in the consolidated statements of income. The ineffective portions of the unrealized gains or losses, if any, are recorded in interest income and interest expense in the consolidated statements of income. Heartland uses statistical regression to assess hedge effectiveness, both at the inception of the hedge as well as on a continual basis. The regression analysis involves regressing the periodic change in fair value of the hedging instrument against the periodic changes in the fair value of the asset being hedged due to changes in the hedge risk.

Heartland does not use derivatives for trading or speculative purposes. Derivatives not designated as hedges are not speculative and are used to manage Heartland's exposure to interest rate movements and other identified risks, but do not meet the strict hedge accounting requirements of ASC 815.

Mortgage Derivatives - Heartland uses interest rate lock commitments to originate residential mortgage loans held for sale and forward commitments to sell residential mortgage loans and mortgage backed securities. These commitments are considered derivative instruments. The fair value of these commitments is recorded on the consolidated balance sheets with the changes in fair value recorded in the consolidated statements of income as a component of gains on sale of loans held for sale. These derivative contracts are designated as free standing derivative contracts and are not designated against specific assets and liabilities on the consolidated balance sheets or forecasted transactions and therefore do not qualify for hedge accounting treatment.

Segment Reporting - Public business enterprises are required to report information about operating segments in financial statements and selected information about operating segments in financial reports issued to shareholders. Operating segments are components of an enterprise about which separate financial information is available that is evaluated regularly by management in determining

how to allocate resources and to assess effectiveness of the segments' performance. Generally, financial information is required to be reported on the basis that is used internally for evaluating segment performance and deciding how to allocate resources to segments. Prior to January 1, 2018, Heartland had two reporting segments, one for community banking and one for mortgage banking operations. Due to the significant reduction in infrastructure and the reporting structure of mortgage personnel, effective January 1, 2018, the restructured mortgage banking segment is no longer a reportable segment. Accordingly, Heartland is no longer reporting results of operations by segment.

Fair Value Measurements - Fair value represents the estimated price at which an orderly transaction to sell an asset or transfer a liability would take place between market participants at the measurement date under current market conditions (i.e. an exit price concept). Fair value measurement is based upon quoted prices, if available. If quoted prices are not available, fair values are measured using discounted cash flow or other valuation techniques. Inputs into the valuation methods are subjective in nature, involve uncertainties, and require significant judgment and therefore cannot be determined with precision. Accordingly, the derived fair value estimates presented herein are not necessarily indicative of the amounts Heartland could realize in a current market exchange. Assets and liabilities are categorized into three levels based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine the fair value. In instances where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy in which the entire fair value measurement falls is based on the lowest level input that is significant to the fair value measurement in its entirety. Heartland's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the asset or liability. Below is a brief description of each fair value level:

Level 1 — Valuation is based upon quoted prices for identical instruments in active markets.

Level 2 — Valuation is based upon quoted prices for similar instruments in active markets, or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market.

Level 3 — Valuation is generated from model-based techniques that use at least one significant assumption not observable in the market. These unobservable assumptions reflect estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques.

Treasury Stock - Treasury stock is accounted for by the cost method, whereby shares of common stock reacquired are recorded at their purchase price. When treasury stock is reissued, any difference between the sales proceeds, or fair value when issued for business combinations, and the cost is recognized as a charge or credit to capital surplus.

Trust Department Assets - Property held for customers in fiduciary or agency capacities is not included in the accompanying consolidated balance sheets because such items are not assets of the Heartland banks.

Earnings Per Share - Basic earnings per share is determined using net income available to common stockholders and weighted average common shares outstanding. Diluted earnings per share is computed by dividing net income available to common stockholders by the weighted average common shares and assumed incremental common shares issued. Amounts used in the determination of basic and diluted earnings per share for the years ended December 31, 2018, 2017 and 2016, are shown in the table below:

(Dollars and number of shares in thousands, except per share data)	2018	2017	2016
Net income attributable to Heartland	\$ 116,998	\$ 75,272	\$ 80,349
Preferred dividends	(39)	(58)	(292)
Interest expense on convertible preferred debt	—	12	51
Net income available to common stockholders	\$ 116,959	\$ 75,226	\$ 80,108
Weighted average common shares outstanding for basic earnings per share	33,012	28,168	24,573
Assumed incremental common shares issued upon vesting of restricted stock units	201	258	300
Weighted average common shares for diluted earnings per share	33,213	28,426	24,873
Earnings per common share — basic	\$ 3.54	\$ 2.67	\$ 3.26
Earnings per common share — diluted	\$ 3.52	\$ 2.65	\$ 3.22

Subsequent Events - Heartland has evaluated subsequent events that may require recognition or disclosure through the filing date of this Annual Report on Form 10-K with the SEC.

On January 16, 2019, Heartland entered into a definitive merger agreement to acquire Blue Valley Ban Corp. and its wholly-owned subsidiary, Bank of Blue Valley, headquartered in Overland Park, Kansas. See Note 2, "Acquisitions," for further details regarding this acquisition.

Effect of New Financial Accounting Standards - In May 2014, the FASB issued Accounting Standards Update ("ASU") 2014-09, *"Revenue from Contracts with Customers."* The amendment clarifies the principles for recognizing revenue and develops a common revenue standard. The amendment outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The core principle of the revenue model is that "an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services." In applying the revenue model to contracts within its scope, an entity should apply the following steps: (i) identify the contract(s) with a customer, (ii) identify the performance obligations in the contract, (iii) determine the transaction price, (iv) allocate the transaction price to the performance obligations in the contract, and (v) recognize revenue when (or as) the entity satisfies a performance obligation. The guidance does not apply to certain contracts within the scope of other ASC Topics, such as lease contracts, insurance contracts, financing arrangements, financial instruments, guarantees other than product or service warranties and nonmonetary exchanges between entities in the same line of business to facilitate sales to customers. Heartland evaluates noninterest income contracts affected by the guidance by analyzing contracts and current accounting practices to determine if a change is appropriate. The amendment is largely consistent with existing guidance and current practices. Heartland adopted the accounting standard effective January 1, 2018, as required, using a modified retrospective approach. However, the adoption of these amendments did not have a significant effect on Heartland's results of operations, financial position and liquidity other than expanded disclosure requirements. See Note 21, "Revenue," for further details regarding Heartland's revenue streams subject to the accounting standard.

In January 2016, the FASB issued guidance ASU 2016-01, *"Recognition and Measurement of Financial Assets and Financial Liabilities."* The amendments in ASU 2016-01 to Subtopic 825-10, Financial Instruments, contain the following elements: (1) require equity investments to be measured at fair value with changes in fair value recognized in net income; (2) simplify the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment; (3) eliminate the requirement for public entities to disclose the methods and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet; (4) require public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes; (5) require an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments; (6) require separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or accompanying notes to the financial statements; and (7) clarify that the entity should evaluate the need for a valuation allowance on a deferred tax asset related to available for sale securities in combination with the entity's other deferred tax assets. The amendments are effective for fiscal years beginning after December 15, 2017, and for interim periods within those fiscal years. Except for the early application of the amendment noted in item (5) above, early adoption of the amendments in this update is not permitted. Entities are required to and Heartland applied the amendment by means of a cumulative-effect adjustment as of the beginning of the fiscal year of adoption, with the exception of the amendment related to equity securities without readily determinable fair values, which is to be applied prospectively to equity investments that exist as of the adoption date. Heartland adopted the accounting standard on January 1, 2018, as required, and the adoption of these amendments did not have a material impact on its results of operations, financial position and liquidity. Heartland reclassified \$280,000 from accumulated other comprehensive income (loss) to retained earnings on January 1, 2018, related to the fair value of its equity investments.

In February 2016, the FASB issued ASU 2016-02, *"Leases (Topic 842)."* Topic 842 requires a lessee to recognize leases on-balance sheet and disclose key information about leasing arrangements. The new standard establishes a right-of-use model (ROU) that requires a lessee to recognize a ROU asset and lease liability on the balance sheet for all leases with a term longer than 12 months. Leases will be classified as financing or operating, with classification affecting the pattern and classification of expense recognition in the income statement. The amendment is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, and will be applied on a modified retrospective basis. Heartland leases certain properties and equipment under operating leases that will result in recognition of lease assets and lease liabilities on the consolidated balance sheets under the ASU; however the majority of Heartland's properties and equipment are owned, not leased. The modified retrospective approach includes a number of optional practical expedients that entities may elect to apply. These practical expedients relate to the identification and classification of leases that commenced before the effective date, initial direct costs for leases that commenced

before the effective date, and the ability to use hindsight in evaluating lessee options to extend or terminate a lease or to purchase the underlying asset. Early adoption is permitted. In January 2018, the FASB issued an amendment to provide entities with the optional practical expedient to not evaluate existing or expired land easements that were previously not accounted for as leases under Topic 840. In July 2018, the FASB issued ASU 2018-11, "*Leases - Targeted Improvements*" to provide entities with relief from the costs of implementing certain aspects of the new leasing standard. Specifically, under the amendments in ASU 2018-11, entities may elect not to recast the comparative periods presented when transitioning to the new leasing standard, and lessors may elect not to separate lease and non-lease components when certain conditions are met. The amendments have the same effective date as ASU 2016-02. Heartland adopted the accounting standard on January 1, 2019, as required, and will not restate comparative periods. Heartland adopted the practical expedients, which allow for existing leases to be accounted for under previous guidance with the exception of balance sheet recognition for lessees. The adoption of the new standard resulted in the recording of ROU assets and lease liabilities of approximately \$24.2 million and \$26.0 million, respectively, on January 1, 2019. The difference between the lease assets and lease liabilities was recorded as an adjustment to retained earnings. The adoption of the standard did not impact Heartland's results of operations or liquidity.

In June 2016, the FASB issued ASU 2016-13, "*Financial Instruments - Credit Losses (Topic 326)*." The amendments in this ASU require a financial asset (or a group of financial assets) measured at amortized cost basis to be presented at the net amount expected to be collected. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial asset(s) to present the net carrying value at the amount expected to be collected on the financial asset. The amendments in this ASU indicate that an entity should not use the length of time a security has been in an unrealized loss position to avoid recording a credit loss. In addition, in determining whether a credit loss exists, the amendments in this ASU also remove the requirements to consider the historical and implied volatility of the fair value of a security and recoveries or declines in fair value after the balance sheet date. The amendment is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. An entity may adopt the amendments earlier as of the fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Heartland intends to adopt the accounting standard in 2020, as required. Upon adoption of ASU 2016-13, a cumulative-effect adjustment to retained earnings will be recorded as of the beginning of the first reporting period in which the guidance is effective. Heartland has formed an internal committee to assess and implement the standard. Heartland has entered into an agreement with a third party vendor to evaluate potential methodologies and data and has started designing its financial models to estimate credit losses in accordance with the new standard. Further development, testing and evaluation of the models is required to determine the impact that the adoption of this standard will have on Heartland's results of operations, financial position and liquidity.

In August 2016, the FASB issued ASU 2016-15, "*Statement of Cash Flows (Topic 230) - Classification of Certain Cash Receipts and Cash Payments*." The amendments in this update address eight specific cash flow issues with the objective of reducing the existing diversity in practice. The amendment is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. If an entity early adopts the amendments in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes the interim period. An entity that elects early adoption must adopt all of the amendments in the same period. The amendments in this update should be applied using a retrospective transition method to each period presented. Heartland adopted this ASU on January 1, 2018, as required, and the adoption of these amendments did not have a material impact on Heartland's results of operations, financial position and liquidity.

In October 2016, the FASB issued ASU 2016-16, "*Income Taxes (Topic 740) - Intra-Entity Transfer of Assets Other Than Inventory*." The amendment requires an entity to recognize income tax consequences on an intra-entity transfer of an asset other than inventory at the time the transaction occurs. The amendment is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The amendments must be applied and Heartland applied these amendments using a modified retrospective basis. Heartland adopted this ASU on January 1, 2018, as required, and the adoption of this amendment did not have a material impact on Heartland's results of operations, financial position and liquidity.

In January 2017, the FASB issued ASU No. 2017-01, "*Business Combinations (Topic 805): Clarifying the Definition of a Business*," which narrows the definition of a business and provides a framework that gives entities a basis for making reasonable judgments about whether a transaction involves an asset or a business. ASU 2017-01 is effective for public business entities in annual periods beginning after December 15, 2017, including interim periods therein. Heartland adopted ASU 2017-01 on January 1, 2018, as required, and the adoption did not have a material impact on Heartland's results of operations, financial position, and liquidity.

In January 2017, the FASB issued ASU 2017-04, "*Intangibles - Goodwill and Other (Topic 350)*." This amendment is to simplify the subsequent measurement of goodwill by eliminating step two from the goodwill impairment test. Instead, an entity will perform only step one of its quantitative goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount, and then recognizing the impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value;

however, the loss recognized cannot exceed the total amount of goodwill allocated to that reporting unit. An entity will still have the option to perform a qualitative assessment for a reporting unit to determine if the quantitative step one impairment test is necessary. This amendment is effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019, and should be applied prospectively. Early adoption is permitted, including in an interim period for impairment tests performed after January 1, 2017. Heartland intends to adopt this ASU in the third quarter of 2020, consistent with the annual impairment test as of September 30, 2020, and is currently evaluating the potential impact of this guidance on its results of operations, financial position and liquidity.

In March 2017, the FASB issued ASU 2017-08, *"Receivables - Nonrefundable Fee and Other Costs (Subtopic 310-20)."* These amendments shorten the amortization period for certain callable debt securities held at a premium. Specifically, the amendments require the premium to be amortized to the earliest call date. The amendments do not require an accounting change for securities held at a discount. Discounts continue to be amortized to maturity. These amendments are effective for public business entities for fiscal years and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted, including adoption in an interim period. If any entity early adopts the amendments in an interim period, any adjustments must be reflected as of the beginning of the fiscal year that includes the interim period. The amendments must be applied and Heartland intends to apply these amendments on a modified retrospective basis, with a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. Heartland adopted this ASU on January 1, 2019, as required, and determined these amendments did not have a material impact on its results of operations, financial position and liquidity.

In May 2017, the FASB issued ASU 2017-09, *"Compensation - Stock Compensation (Topic 718)."* The amendments provide guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. An entity should account for the effects of a modification unless all the following are met; (1) the fair value (or calculated value or intrinsic value, if such an alternative measurement method is used) of the modified award is the same as the fair value (or calculated value or intrinsic value, if such an alternative measurement method is used) of the original award immediately before the original award is modified. If the modification does not affect any of the inputs to the valuation technique that the entity uses to value the award, the entity is not required to estimate the value immediately before and after the modification; (2) the vesting conditions of the modified award are the same as the vesting conditions of the original award immediately before the original award is modified; (3) the classification of the modified award as an equity instrument or a liability instrument is the same as the classification of the original award immediately before the original award is modified. The amendments are effective for annual periods and interim periods within those annual periods, beginning after December 15, 2017. Early adoption is permitted, including adoption in any interim periods for public business entities for reporting periods for which financial statements have not yet been issued. The amendments should be applied and Heartland applied these amendments prospectively to an award modified on or after the adoption date. Heartland adopted this ASU on January 1, 2018, as required, and the adoption did not have a material impact on its results of operations, financial position and liquidity because Heartland does not typically modified share-based payment awards after the original award has been granted.

In August 2017, the FASB issued ASU 2017-12, *"Derivatives and Hedging: Targeted Improvements to Accounting for Hedging Activities."* The purpose of this updated guidance is to better align a company's financial reporting for hedging activities with the economic objectives of those activities. ASU 2017-12 is effective for public business entities for fiscal years beginning after December 15, 2018, with early adoption, including adoption in an interim period, permitted. For a closed portfolio of prepayable financial assets or one or more beneficial interests secured by a portfolio of prepayable financial instruments, this ASU permits an entity to designate an amount that is not expected to be affected by prepayments, defaults, and other events affecting the timing and amount of cash flows (the "last-of-layer" method). Under this designation, prepayment risk is not incorporated into the measurement of the hedged item. ASU 2017-12 requires a modified retrospective transition method in which Heartland will recognize the cumulative effect of the change on the opening balance of each affected component of equity on the balance sheet as of the date of adoption. Heartland adopted this ASU on January 1, 2019, as required, and as a result of the adoption, \$148.4 million of held to maturity securities were reclassified to available for sale debt securities carried at fair value. There was no impact to Heartland's results of operations, or liquidity as a result of the adoption of this amendment.

In February 2018, the FASB issued ASU 2018-02, *"Income Statement-Reporting Comprehensive Income (Topic 220)."* This ASU allows for the option to reclassify from accumulated other comprehensive income ("AOCI") to retained earnings for stranded tax effects resulting from the newly enacted federal corporate income tax rate in the Tax Cuts and Jobs Act of 2017, which was enacted on December 22, 2017. The legislation included a reduction to the corporate income tax rate from 35 percent to 21 percent effective January 1, 2018. The amount of the reclassification would be the difference between the historical corporate income tax rate and the newly enacted 21 percent corporate income tax rate. The amendments in this ASU are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted for public businesses for reporting periods for which financial statements have not yet been issued. Heartland adopted the guidance as of December 31,

2017. The adoption of this ASU was accounted for as a cumulative-effect adjustment to the balance sheet resulting in a \$4.5 million increase to retained earnings and a corresponding decrease to AOCI on December 31, 2017.

In August 2018, the FASB issued ASU 2018-13, "*Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement*." This ASU eliminates, adds and modifies certain disclosure requirements for fair value measurements. Among the changes, entities will no longer be required to disclose the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy but will be required to disclose the range and weighted average used to develop significant unobservable inputs for Level 3 fair value measurements. ASU 2018-13 is effective for interim and annual reporting periods beginning after December 15, 2019, and early adoption is permitted. Entities are also allowed to elect early adoption the eliminated or modified disclosure requirements and delay adoption of the new disclosure requirements until their effective date. Heartland intends to adopt this ASU in 2020, as required, and because the ASU only revises disclosure requirements, the adoption of this ASU will not have a material impact on Heartland's results of operations, financial position and liquidity.

TWO ACQUISITIONS

Blue Valley Ban Corp.

On January 16, 2019, Heartland entered into a definitive merger agreement to acquire Blue Valley Ban Corp., and its wholly-owned subsidiary, Bank of Blue Valley, headquartered in Overland Park, Kansas. As of the announcement date, the transaction, in which all of the issued and outstanding shares of Blue Valley Ban Corp. stock will be exchanged for shares of Heartland common stock, was valued at approximately \$93.9 million. Simultaneous with the closing of the transaction, Bank of Blue Valley will merge into Heartland's Kansas-based subsidiary, Morrill & Janes Bank and Trust Company, and the combined entity will operate as Bank of Blue Valley. The amount of the merger consideration is subject to fluctuations in the price of Heartland common stock and certain potential adjustments, and the transaction is subject to customary closing conditions. The transaction is expected to close in the second quarter of 2019 with a systems conversion planned for the third quarter of 2019. As of December 31, 2018, Bank of Blue Valley had total assets of approximately \$715.1 million, which included approximately \$561.3 million of gross loans outstanding, and approximately \$562.6 million of deposits. Because the merger agreement was signed on January 16, 2019 and the transaction is expected to close in the second quarter of 2019, the transaction has no impact on Heartland's 2018 consolidated financial statements

Signature Bancshares, Inc.

On February 23, 2018, Heartland completed the acquisition of Signature Bancshares, Inc., parent company of Signature Bank, headquartered in Minnetonka, Minnesota. Under the terms of the definitive merger agreement, Heartland acquired Signature Bancshares, Inc. in a transaction valued at approximately \$61.4 million, of which \$7.8 million was cash, and the remainder was settled by delivery of 1,000,843 shares of Heartland common stock. Simultaneous with the close, Signature Bank merged into Heartland's wholly-owned Minnesota Bank & Trust subsidiary, and the combined entity operates under the Minnesota Bank & Trust brand name. The transaction included, at fair value, total assets of \$427.1 million, including \$324.5 million of gross loans held to maturity, and deposits of \$357.3 million. On the closing date, Heartland provided Signature Bancshares, Inc. the funds necessary to repay outstanding subordinated debt of \$5.9 million. The transaction was a tax-free reorganization with respect to the stock consideration received by the stockholders of Signature Bancshares, Inc.

First Bank Lubbock Bancshares, Inc.

On May 18, 2018, Heartland completed the acquisition of Lubbock, Texas based First Bank Lubbock Bancshares, Inc., parent company of First Bank & Trust, and PrimeWest Mortgage Corporation, which is a wholly-owned subsidiary of First Bank & Trust. Under the terms of the definitive merger agreement, Heartland acquired FBLB in a transaction valued at approximately \$189.9 million, of which \$5.5 million was cash, and the remainder was settled by delivery of 3,350,664 shares of Heartland common stock. On the closing date, in addition to this merger consideration, Heartland provided First Bank Lubbock Bancshares, Inc. the funds necessary to repay outstanding debt of \$3.9 million, and Heartland assumed \$8.2 million of trust preferred securities at fair value. Immediately after the close of the transaction, Heartland paid \$13.3 million to the holders of First Bank Lubbock Bancshares Inc.'s stock appreciation rights. The transaction included, at fair value, total assets of \$1.12 billion, including \$681.1 million of gross loans held to maturity, and deposits of \$893.8 million. Upon closing of the transaction, First Bank & Trust became a wholly-owned subsidiary of Heartland and continues to operate under its current name and management team as Heartland's eleventh state-chartered bank. The transaction was a tax-free reorganization with respect to the stock consideration received by the stockholders of First Bank Lubbock Bancshares, Inc.

The assets and liabilities of First Bank Lubbock Bancshares, Inc. were recorded on the consolidated balance sheet at the estimated fair value on the acquisition date. The following table represents, in thousands, the amounts recorded on the consolidated balance sheet as of May 18, 2018:

	<u>As of May 18, 2018</u>
Fair value of consideration paid:	
Common stock (3,350,664 shares)	\$ 184,454
Cash	5,451
Total consideration paid	<u>189,905</u>
Fair value of assets acquired	
Cash and cash equivalents	212,105
Securities:	
Carried at fair value	1,788
Other securities	3,268
Loans held for sale	31,050
Loans held to maturity	681,080
Premises, furniture and equipment, net	23,271
Other real estate, net	379
Mortgage servicing rights	6,995
Core deposit intangibles and customer relationships, net	13,908
Cash surrender value on life insurance	14,997
Other assets	7,185
Total assets	<u>996,026</u>
Fair value of liabilities assumed	
Deposits	893,827
Other borrowings	12,077
Other liabilities	21,580
Total liabilities assumed	<u>927,484</u>
Fair value of net assets acquired	<u>68,542</u>
Goodwill resulting from acquisition	<u>\$ 121,363</u>

Heartland recognized \$121.4 million of goodwill in conjunction with the acquisition of First Bank Lubbock Bancshares, Inc., which is calculated as the excess of both the consideration exchanged and the liabilities assumed as compared to the fair value of identifiable assets acquired. Goodwill resulted from the expected operational synergies, enhanced market area, cross-selling opportunities and expanded business lines. See Note 6 for further information on goodwill.

Pro Forma Information (unaudited): The following pro forma information represents the results of operations for the years ended December 31, 2018, and 2017, as if the First Bank Lubbock Bancshares, Inc. acquisition occurred on January 1, 2018, and January 1, 2017, respectively:

(Dollars in thousands, except per share data), unaudited

	<u>For the Years Ended December 31,</u>	
	<u>2018</u>	<u>2017</u>
Net interest income	\$ 428,129	\$ 364,993
Net income available to common stockholders	101,216	96,346
Basic earnings per share	2.95	3.06
Diluted earnings per share	2.93	3.03

The above pro forma results are presented for illustrative purposes and are not intended to represent or be indicative of the actual results of operations of the merged companies that would have been achieved had the acquisition occurred on January 1, 2018, and January 1, 2017, respectively, nor are they intended to represent or be indicative of future results of operations. The pro forma

results do not include expected operating cost savings as a result of the acquisition or adjustments for \$6.0 million of transaction costs or \$13.3 million of stock appreciation rights expense recorded by First Bank Lubbock Bancshares, Inc. in 2018 prior to the acquisition. The pro forma results also do not include adjustment for income taxes. These pro forma results require significant estimates and judgments particularly with respect to valuation and accretion of income associated with the acquired loans.

Heartland incurred \$1.1 million of pre-tax merger related expenses in the year ended December 31, 2018, associated with the First Bank Lubbock Bancshares, Inc. acquisition. The merger expenses are reflected on the consolidated statements of income for the applicable period and are reported primarily in the categories of professional fees and other noninterest expenses.

Acquired loans were preliminarily recorded at fair value based on a discounted cash flow valuation methodology that considers, among other things, projected default rates, loss given defaults and recovery rates. No allowance for credit losses was carried over from the acquisition. The balance of nonaccrual loans on the acquisition date was \$7.6 million.

Citywide Banks of Colorado, Inc.

On July 7, 2017, Heartland acquired Citywide Banks of Colorado, Inc., parent company of Citywide Banks, headquartered in Aurora, Colorado. The transaction consideration was approximately \$211.2 million, of which \$58.6 million was cash, and the remainder was settled by delivery of 3,216,161 shares of Heartland common stock. Simultaneous with the close, Citywide Banks merged into Heartland's Centennial Bank and Trust subsidiary, and the combined entity operates as Citywide Banks. The transaction included, at fair value, total assets of \$1.49 billion, including \$985.4 million of net loans outstanding, and \$1.21 billion of deposits on the acquisition date. The transaction was a tax-free reorganization with respect to the stock consideration received by the stockholders of Citywide Banks of Colorado, Inc.

The assets and liabilities of Citywide Banks of Colorado, Inc. were recorded on the consolidated balance sheet at the estimated fair value on the acquisition date. The following table represents, in thousands, the amounts recorded on the consolidated balance sheet as of July 7, 2017:

	<u>As of July 7, 2017</u>
Fair value of consideration paid:	
Common stock (3,216,161 shares)	\$ 152,607
Cash	58,636
Total consideration paid	<u>211,243</u>
Fair value of assets acquired:	
Cash and due from banks	21,341
Interest bearing deposits with the Federal Reserve and other banks and other short-term investments	74,686
Time deposits in other financial institutions	6,304
Securities:	
Securities available for sale	234,390
Other securities	2,628
Loans held to maturity	985,399
Premises, furniture and equipment, net	17,206
Premises, furniture and equipment held for sale	1,350
Other real estate, net	6,916
Core deposit intangibles and customer relationship intangibles, net	16,041
Cash surrender value on life insurance	21,015
Other assets	11,263
Total assets	<u>1,398,539</u>
Fair value of liabilities assumed:	
Deposits	1,210,074
Short term borrowings	34,445
Other borrowings	21,636
Other liabilities	16,295
Total liabilities assumed	<u>1,282,450</u>
Fair value of net assets acquired	<u>116,089</u>
Goodwill resulting from acquisition	<u>\$ 95,154</u>

Heartland recognized \$95.2 million of goodwill in conjunction with the acquisition of Citywide Banks of Colorado, Inc., which is calculated as the excess of both the consideration exchanged and the liabilities assumed as compared to the fair value of identifiable assets acquired. Goodwill resulted from the expected operational synergies, enhanced market area, cross-selling opportunities and expanded business lines. See Note 8 for further information on goodwill.

Heartland incurred \$3.8 million of pre-tax merger related expenses in 2017, associated with the Citywide Banks of Colorado, Inc. acquisition. The merger expenses are reflected on the consolidated statements of income for the applicable period and are reported primarily in the categories of salaries and employee benefits, professional fees, loss on sales/valuations of assets, net and other noninterest expenses.

Acquired loans were preliminarily recorded at fair value based on a discounted cash flow valuation methodology that considers, among other things, projected default rates, loss given defaults and recovery rates. No allowance for credit losses was carried over from the acquisition. The balance of nonaccrual loans on the acquisition date was \$1.2 million.

Founders Bancorp

On February 28, 2017, Heartland acquired Founders Bancorp, parent company of Founders Community Bank, based in San Luis Obispo, California. The purchase price was approximately \$31.0 million, which was paid by delivery of 455,877 shares of Heartland common stock and cash of \$8.4 million. The transaction included, at fair value, total assets of \$213.9 million, loans of \$96.4 million, and deposits of \$181.5 million on the acquisition date. The transaction also included one bank building with a fair value of \$576,000 that Heartland sold during the second quarter of 2017. Simultaneous with the closing of the transaction, Founders Community Bank merged into Heartland's Premier Valley Bank subsidiary. The transaction was a tax-free reorganization with respect to the stock consideration received by the stockholders of Founders Bancorp.

THREE

CASH AND DUE FROM BANKS

The Heartland banks are required to maintain certain average cash reserve balances as a non-member bank of the Federal Reserve System. The reserve balance requirements at December 31, 2018 and 2017, were \$15.2 million and \$10.7 million, respectively.

FOUR

SECURITIES

The amortized cost, gross unrealized gains and losses and estimated fair values of debt securities available for sale and equity securities with a readily determinable fair value as of December 31, 2018, and December 31, 2017, are summarized in the table below, in thousands:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
December 31, 2018				
U.S. government corporations and agencies	\$ 32,075	\$ 3	\$ (127)	\$ 31,951
Mortgage and asset-backed securities	2,061,358	3,740	(38,400)	2,026,698
Obligations of states and political subdivisions	382,101	919	(8,046)	374,974
Total debt securities	2,475,534	4,662	(46,573)	2,433,623
Equity securities with a readily determinable fair value	17,086	—	—	17,086
Total	<u>\$ 2,492,620</u>	<u>\$ 4,662</u>	<u>\$ (46,573)</u>	<u>\$ 2,450,709</u>
December 31, 2017				
U.S. government corporations and agencies	\$ 5,358	\$ 8	\$ (38)	\$ 5,328
Mortgage and asset-backed securities	1,785,467	5,856	(37,587)	1,753,736
Obligations of states and political subdivisions	441,060	4,669	(4,714)	441,015
Total debt securities	2,231,885	10,533	(42,339)	2,200,079
Equity securities	16,296	378	—	16,674
Total	<u>\$ 2,248,181</u>	<u>\$ 10,911</u>	<u>\$ (42,339)</u>	<u>\$ 2,216,753</u>

Investment securities as shown in this report reflect categories as required by Heartland's adoption of ASU 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities", on January 1, 2018. That guidance refined the definition of equity securities and required their segregation from available for sale debt securities.

While changes in the fair value of available for sale debt securities continue to be recorded in the equity category of accumulated other comprehensive income (loss), the guidance requires changes in the fair value of equity securities to be recorded in current earnings. As required by the guidance, the unrealized gain in fair value on equity securities (recorded in accumulated other comprehensive income (loss) at December 31, 2017) was reclassified to retained earnings on January 1, 2018. The amount of the reclassification was \$280,000, net of tax.

Equity securities include money market accounts that totaled \$17.1 million at carrying value and \$17.1 million at fair value at December 31, 2018. The portion of unrealized net gains on equity securities recognized in current earnings during 2018, which related to securities still held at December 31, 2018, totaled \$212,000.

The amortized cost, gross unrealized gains and losses and estimated fair values of held to maturity securities as of December 31, 2018, and December 31, 2017, are summarized in the table below, in thousands:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
December 31, 2018				
Obligations of states and political subdivisions	\$ 236,283	\$ 9,554	\$ (496)	\$ 245,341
Total	<u>\$ 236,283</u>	<u>\$ 9,554</u>	<u>\$ (496)</u>	<u>\$ 245,341</u>
December 31, 2017				
Obligations of states and political subdivisions	\$ 253,550	\$ 12,460	\$ (516)	\$ 265,494
Total	<u>\$ 253,550</u>	<u>\$ 12,460</u>	<u>\$ (516)</u>	<u>\$ 265,494</u>

No transfers from available for sale to held to maturity were made in 2018 or 2017.

The amortized cost and estimated fair value of investment securities carried at fair value at December 31, 2018, by contractual maturity are as follows, in thousands. Expected maturities will differ from contractual maturities because issuers may have the right to call or prepay obligations with or without penalties.

	December 31, 2018	
	Amortized Cost	Estimated Fair Value
Due in 1 year or less	\$ 30,248	\$ 30,163
Due in 1 to 5 years	51,947	51,120
Due in 5 to 10 years	137,983	135,423
Due after 10 years	193,998	190,219
Total debt securities	<u>414,176</u>	<u>406,925</u>
Mortgage and asset-backed securities	2,061,358	2,026,698
Equity securities with a readily determinable fair value	17,086	17,086
Total investment securities	<u>\$ 2,492,620</u>	<u>\$ 2,450,709</u>

The amortized cost and estimated fair value of debt securities held to maturity at December 31, 2018, by contractual maturity are as follows, in thousands. Expected maturities will differ from contractual maturities because issuers may have the right to call or prepay obligations with or without penalties.

	December 31, 2018	
	Amortized Cost	Estimated Fair Value
Due in 1 year or less	\$ 583	\$ 589
Due in 1 to 5 years	31,156	31,759
Due in 5 to 10 years	111,690	115,342
Due after 10 years	92,854	97,651
Total investment securities	<u>\$ 236,283</u>	<u>\$ 245,341</u>

As of December 31, 2018, securities with a carrying value of \$524.8 million were pledged to secure public and trust deposits, short-term borrowings and for other purposes as required and permitted by law.

Gross gains and losses realized related to sales of securities carried at fair value for the years ended December 31, 2018, 2017 and 2016 are summarized as follows, in thousands:

	2018	2017	2016
Available for Sale Securities sold:			
Proceeds from sales	\$ 727,895	\$ 1,456,750	\$ 909,942
Gross security gains	3,661	10,585	13,200
Gross security losses	2,576	3,812	1,562

The following tables summarize, in thousands, the amount of unrealized losses, defined as the amount by which cost or amortized cost exceeds fair value, and the related fair value of investments with unrealized losses in Heartland's securities portfolio as of December 31, 2018, and December 31, 2017. The investments were segregated into two categories: those that have been in a continuous unrealized loss position for less than 12 months and those that have been in a continuous unrealized loss position for 12 or more months. The reference point for determining how long an investment was in an unrealized loss position was December 31, 2018, and December 31, 2017, respectively. Securities for which Heartland has taken credit-related other-than-temporary impairment ("OTTI") write-downs are categorized as being "less than 12 months" or "12 months or longer" in a continuous loss position based on the point in time that the fair value declined to below the cost basis and not the period of time since the credit-related OTTI write-down.

Debt securities available for sale	Less than 12 months		12 months or longer		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
December 31, 2018						
U.S. government corporations and agencies	\$ 24,902	\$ (83)	\$ 4,577	\$ (44)	\$ 29,479	\$ (127)
Mortgage and asset-backed securities	733,826	(9,060)	805,089	(29,340)	1,538,915	(38,400)
Obligations of states and political subdivisions	34,990	(390)	258,143	(7,656)	293,133	(8,046)
Total temporarily impaired securities	<u>\$ 793,718</u>	<u>\$ (9,533)</u>	<u>\$ 1,067,809</u>	<u>\$ (37,040)</u>	<u>\$ 1,861,527</u>	<u>\$ (46,573)</u>
December 31, 2017						
U.S. government corporations and agencies	\$ 4,819	\$ (38)	\$ —	\$ —	\$ 4,819	\$ (38)
Mortgage and asset-backed securities	851,070	(11,533)	399,978	(26,054)	1,251,048	(37,587)
Obligations of states and political subdivisions	93,040	(667)	159,180	(4,047)	252,220	(4,714)
Total temporarily impaired securities	<u>\$ 948,929</u>	<u>\$ (12,238)</u>	<u>\$ 559,158</u>	<u>\$ (30,101)</u>	<u>\$ 1,508,087</u>	<u>\$ (42,339)</u>

Securities held to maturity	Less than 12 months		12 months or longer		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
December 31, 2018						
Obligations of states and political subdivisions	\$ 10,802	\$ (17)	\$ 19,508	\$ (479)	\$ 30,310	\$ (496)
Total temporarily impaired securities	\$ 10,802	\$ (17)	\$ 19,508	\$ (479)	\$ 30,310	\$ (496)
December 31, 2017						
Obligations of states and political subdivisions	\$ 8,512	\$ (49)	\$ 8,989	\$ (467)	\$ 17,501	\$ (516)
Total temporarily impaired securities	\$ 8,512	\$ (49)	\$ 8,989	\$ (467)	\$ 17,501	\$ (516)

Heartland reviews the investment securities portfolio on a quarterly basis to monitor its exposure to OTTI. A determination as to whether a security's decline in fair value is other-than-temporary takes into consideration numerous factors and the relative significance of any single factor can vary by security. Some factors Heartland may consider in the OTTI analysis include the length of time the security has been in an unrealized loss position, changes in security ratings, financial condition of the issuer, as well as security and industry specific economic conditions. In addition, with regard to debt securities, Heartland may also evaluate payment structure, whether there are defaulted payments or expected defaults, prepayment speeds and the value of any underlying collateral. For certain debt securities in unrealized loss positions, Heartland prepares cash flow analyses to compare the present value of cash flows expected to be collected from the security with the amortized cost basis of the security.

During 2016, Heartland sold the mortgage-backed securities in the held to maturity portfolio because the credit quality of the securities showed further deterioration, and it was unlikely Heartland would recover the remaining basis of the securities prior to maturity. The significant deterioration of the credit quality of these securities was inconsistent with Heartland's original intent upon purchase and classification of these held to maturity securities. The carrying value of these securities was \$4.4 million, and the associated realized gross gains were \$89,000, and the realized gross losses were \$439,000.

Heartland also sold the mortgage-backed security in the available for sale portfolio with previously recorded credit-related OTTI in 2016. The carrying value of this security was \$483,000, and the associated gross loss was \$85,000.

The remaining unrealized losses on Heartland's mortgage-backed securities are the result of changes in market interest rates or widening of market spreads subsequent to the initial purchase of the securities. The losses are not related to concerns regarding the underlying credit of the issuers or the underlying collateral. It is expected that the securities will not be settled at a price less than the amortized cost of the investment. Because the decline in fair value is attributable to changes in interest rates or widening market spreads and not credit quality, and because Heartland has the intent and ability to hold these investments until a market price recovery or to maturity and does not believe it will be required to sell the securities before maturity, these investments are not considered other-than-temporarily impaired.

During 2016, Heartland sold one obligation of states and political subdivisions from the held to maturity portfolio because the credit quality of the security showed significant deterioration, and it was unlikely Heartland would recover the remaining basis of the security prior to maturity. The significant deterioration of the credit quality of this security was inconsistent with Heartland's original intent upon purchase and classification of this held to maturity security. The carrying value of this security was \$503,000, and the associated gross loss was \$1,500.

The remaining unrealized losses on Heartland's obligations of states and political subdivisions are the result of changes in market interest rates or widening of market spreads subsequent to the initial purchase of the securities. Management monitors the published credit ratings of these securities and the stability of the underlying municipalities. Because the decline in fair value is attributable to changes in interest rates or widening market spreads due to insurance company downgrades and not underlying credit quality, and because Heartland has the intent and ability to hold these investments until a market price recovery or to maturity and does not believe it will be required to sell the securities before maturity, these investments are not considered other-than-temporarily impaired.

There were no gross realized gains or losses on the sale of securities carried at fair value or held to maturity securities with OTTI write-downs for the periods ended December 31, 2018 and December 31, 2017. There were no gross realized gains and \$85,000 of gross realized losses on the sale of securities carried at fair value with OTTI write-downs for the period ended December 31, 2016. Additionally, there were \$89,000 of gross realized gains and \$439,000 of gross realized losses on the sale of held to maturity securities with OTTI write-downs for the period ended December 31, 2016.

The following table shows the detail of OTTI write-downs on debt securities included in earnings and the related changes in AOCI for the same securities, in thousands:

	For the Years Ended December 31,		
	2018	2017	2016
OTTI on debt securities			
Recorded as part of gross realized losses:			
Credit related OTTI	\$ —	\$ —	\$ —
Intent to sell OTTI	—	—	—
Total recorded as part of gross realized losses	—	—	—
Recorded directly to AOCI for non-credit related impairment:			
Reclassification of non-credit related impairment	—	—	—
Reduction of non-credit related impairment related to security sales	—	—	(120)
Accretion of non-credit related impairment	—	—	(7)
Total changes to AOCI for non-credit related impairment	—	—	(127)
Total OTTI losses (accretion) recorded on debt securities	\$ —	\$ —	\$ (127)

The following table presents a rollforward of the credit loss component of OTTI recognized in earnings for debt securities still owned by Heartland. The credit loss component of the amortized cost represents the difference between the present value of expected future cash flows discounted using the security's current effective interest rate and the amortized cost basis of the security prior to considering credit losses. OTTI recognized in earnings for credit impaired debt securities is presented as additions and is classified into one of two components based upon whether the current period is the first time the debt security was credit-impaired (initial credit impairment) or if the debt security was previously credit impaired (subsequent credit impairments). The credit loss component is reduced if Heartland sells, intends to sell, or if management believes they will be required to sell previously credit impaired debt securities. Additionally, the credit loss component is reduced if Heartland receives, expects to receive cash flows in excess of what was previously expected to be received over the remaining life of the credit impaired debt security, the security matures or is fully written down.

Changes in the credit loss component of the credit impaired debt securities for the years ended December 31, 2018, 2017 and 2016, were as follows, in thousands:

	For the Years Ended December 31,		
	2018	2017	2016
Credit loss component, beginning of period	\$ —	\$ —	\$ 1,750
Additions:			
Initial credit impairments	—	—	—
Subsequent credit impairments	—	—	—
Total additions	—	—	—
Reductions:			
For securities sold	—	—	1,750
Total reductions	—	—	1,750
Credit loss component, end of period	\$ —	\$ —	\$ —

Included in other securities were shares of stock in each Federal Home Loan Bank (the "FHLB") of Des Moines, Chicago, Dallas, San Francisco and Topeka at an amortized cost of \$16.6 million at December 31, 2018 and \$14.0 million at December 31, 2017.

The Heartland banks are required to maintain FHLB stock as members of the various FHLBs as required by these institutions. These equity securities are "restricted" in that they can only be sold back to the respective institutions or another member institution at par. Therefore, they are less liquid than other marketable equity securities and their fair value approximates amortized cost. Heartland considers its FHLB stock as a long-term investment that provides access to competitive products and liquidity. Heartland evaluates impairment in these investments based on the ultimate recoverability of the par value and at December 31, 2018, did not consider the investments to be other than temporarily impaired.

FIVE LOANS

Loans as of December 31, 2018, and December 31, 2017, were as follows, in thousands:

	December 31, 2018	December 31, 2017
Loans receivable held to maturity:		
Commercial	\$ 2,020,231	\$ 1,646,606
Commercial real estate	3,711,481	3,163,269
Agricultural and agricultural real estate	565,408	511,588
Residential real estate	673,603	624,279
Consumer	440,158	447,484
Gross loans receivable held to maturity	7,410,881	6,393,226
Unearned discount	(1,624)	(556)
Deferred loan fees	(1,560)	(1,206)
Total net loans receivable held to maturity	7,407,697	6,391,464
Allowance for loan losses	(61,963)	(55,686)
Loans receivable, net	\$ 7,345,734	\$ 6,335,778

Heartland has certain lending policies and procedures in place that are designed to provide for an acceptable level of credit risk. The board of directors reviews and approves these policies and procedures on a regular basis. A reporting system supplements the review process by providing management and the board with frequent reports related to loan production, loan quality, concentrations of credit, loan delinquencies and nonperforming loans and potential problem loans. See Note 1 for Heartland's accounting policy for loans.

Heartland originates commercial and commercial real estate loans for a wide variety of business purposes, including lines of credit for capital and operating purposes and term loans for real estate and equipment purchases. Agricultural loans provide financing for capital improvements and farm operations, as well as livestock and machinery purchases. Residential mortgage loans are originated for the construction, purchase or refinancing of single family residential properties. Consumer loans include loans for motor vehicles, home improvement, home equity and personal lines of credit.

Under Heartland's credit practices, a loan is impaired when, based on current information and events, it is probable that Heartland will be unable to collect all amounts due according to the contractual terms of the loan agreement. Loan impairment is measured based on the present value of expected future cash flows discounted at the loan's effective interest rate, except where more practical, at the observable market price of the loan or the fair value of the collateral if the loan is collateral dependent.

The following table shows the balance in the allowance for loan losses at December 31, 2018, and December 31, 2017, and the related loan balances, disaggregated on the basis of impairment methodology, in thousands. Loans evaluated under ASC 310-10-35 include loans on nonaccrual status and troubled debt restructurings, which are individually evaluated for impairment, and other impaired loans deemed to have similar risk characteristics. All other loans are collectively evaluated for impairment under ASC 450-20. Heartland has made no changes to the accounting for the allowance for loan losses policy during 2018 or 2017.

	Allowance For Loan Losses			Gross Loans Receivable Held to Maturity		
	Ending Balance Under ASC 310-10-35	Ending Balance Under ASC 450-20	Total	Ending Balance Evaluated for Impairment Under ASC 310-10-35	Ending Balance Evaluated for Impairment Under ASC 450-20	Total
December 31, 2018						
Commercial	\$ 5,733	\$ 18,772	\$ 24,505	\$ 24,202	\$ 1,996,029	\$ 2,020,231
Commercial real estate	218	25,320	25,538	14,388	3,697,093	3,711,481
Agricultural and agricultural real estate	686	4,267	4,953	15,951	549,457	565,408
Residential real estate	168	1,617	1,785	20,251	653,352	673,603
Consumer	749	4,433	5,182	7,004	433,154	440,158
Total	<u>\$ 7,554</u>	<u>\$ 54,409</u>	<u>\$ 61,963</u>	<u>\$ 81,796</u>	<u>\$ 7,329,085</u>	<u>\$ 7,410,881</u>
December 31, 2017						
Commercial	\$ 1,613	\$ 16,485	\$ 18,098	\$ 7,415	\$ 1,639,191	\$ 1,646,606
Commercial real estate	766	21,184	21,950	23,705	3,139,564	3,163,269
Agricultural and agricultural real estate	546	3,712	4,258	13,304	498,284	511,588
Residential real estate	430	1,794	2,224	27,141	597,138	624,279
Consumer	1,400	7,756	9,156	6,903	440,581	447,484
Total	<u>\$ 4,755</u>	<u>\$ 50,931</u>	<u>\$ 55,686</u>	<u>\$ 78,468</u>	<u>\$ 6,314,758</u>	<u>\$ 6,393,226</u>

The following table presents nonaccrual loans, accruing loans past due 90 days or more and troubled debt restructured loans at December 31, 2018, and December 31, 2017, in thousands:

	December 31, 2018	December 31, 2017
Nonaccrual loans	\$ 67,833	\$ 58,272
Nonaccrual troubled debt restructured loans	4,110	4,309
Total nonaccrual loans	<u>\$ 71,943</u>	<u>\$ 62,581</u>
Accruing loans past due 90 days or more	\$ 726	\$ 830
Performing troubled debt restructured loans	\$ 4,026	\$ 6,617

Heartland had \$8.1 million of troubled debt restructured loans at December 31, 2018, of which \$4.1 million were classified as nonaccrual and \$4.0 million were accruing according to the restructured terms. Heartland had \$10.9 million of troubled debt restructured loans at December 31, 2017, of which \$4.3 million were classified as nonaccrual and \$6.6 million were accruing according to the restructured terms. At December 31, 2018, \$7.6 million of the residential real estate troubled debt restructured loans were repurchased loans under various GNMA insured or guaranteed loan programs.

The following table provides information on troubled debt restructured loans that were modified during the years ended December 31, 2018, and December 31, 2017, in thousands:

	For the Years Ended					
	December 31, 2018			December 31, 2017		
	Number of Loans	Pre-Modification Recorded Investment	Post-Modification Recorded Investment	Number of Loans	Pre-Modification Recorded Investment	Post-Modification Recorded Investment
Commercial	—	\$ —	\$ —	3	\$ 124	\$ 124
Commercial real estate	—	—	—	—	—	—
Total commercial and commercial real estate	—	—	—	3	124	124
Agricultural and agricultural real estate	—	—	—	—	—	—
Residential real estate	16	2,843	2,559	29	4,126	3,794
Consumer	—	—	—	—	—	—
Total	16	\$ 2,843	\$ 2,559	32	\$ 4,250	\$ 3,918

The pre-modification and post-modification recorded investment represents amounts as of the date of loan modification. The difference between the pre-modification investment and post-modification investment amounts on Heartland's residential real estate troubled debt restructured loans is due to principal deferment collected from government guarantees and capitalized interest and escrow. At December 31, 2018, there were no commitments to extend credit to any of the borrowers with an existing TDR.

The following table provides information on troubled debt restructured loans for which there was a payment default during the years ended December 31, 2018, and December 31, 2017, in thousands, that had been modified during the 12-month period prior to the default:

	With Payment Defaults During the Following Periods			
	For the Years Ended			
	December 31, 2018		December 31, 2017	
	Number of Loans	Recorded Investment	Number of Loans	Recorded Investment
Commercial	—	\$ —	—	\$ —
Commercial real estate	—	—	—	—
Total commercial and commercial real estate	—	—	—	—
Agricultural and agricultural real estate	—	—	—	—
Residential real estate	7	1,036	16	2,435
Consumer	—	—	—	—
Total	7	\$ 1,036	16	\$ 2,435

Heartland's internal rating system is a series of grades reflecting management's risk assessment, based on its analysis of the borrower's financial condition. The "pass" category consists of all loans that are not in the "nonpass" category, categorized into a range of loan grades that reflect increasing, though still acceptable, risk. Movement of risk through the various grade levels in the pass category is monitored for early identification of credit deterioration. The "nonpass" category consists of special mention, substandard, doubtful and loss loans. The "special mention" rating is attached to loans where the borrower exhibits negative financial trends due to borrower specific or systemic conditions that, if left uncorrected, threaten its capacity to meet its debt obligations. The borrower is believed to have sufficient financial flexibility to react to and resolve its negative financial situation. These credits are closely monitored for improvement or deterioration. The "substandard" rating is assigned to loans that are inadequately protected by the current sound net worth and paying capacity of the borrower and may be further at risk due to deterioration in the value of collateral pledged. Well-defined weaknesses jeopardize liquidation of the debt. These loans are still considered collectible, however, a distinct possibility exists that Heartland will sustain some loss if deficiencies are not corrected. Substandard loans may exhibit some or all of the following weaknesses: deteriorating trends, lack of earnings, inadequate debt service capacity, excessive debt and/or lack of liquidity. The "doubtful" rating is assigned to loans where identified weaknesses make collection or liquidation in full, on the basis of existing facts, conditions and values, highly questionable and improbable. These borrowers are usually in default, lack liquidity and capital, as well as resources necessary to remain an operating entity. Specific pending events, such as capital injections, liquidations or perfection of liens on additional collateral, may strengthen the credit, thus deferring classification of the loan as loss until exact status can be determined. The "loss" rating is assigned to loans

considered uncollectible. As of December 31, 2018, Heartland had no loans classified as doubtful and no loans classified as loss. Loans are placed on "nonaccrual" when management does not expect to collect payments of principal and interest in full or when principal or interest has been in default for a period of 90 days or more, unless the loan is both well secured and in the process of collection.

The following table presents loans by credit quality indicator at December 31, 2018, and December 31, 2017, in thousands:

	Pass	Nonpass	Total
December 31, 2018			
Commercial	\$ 1,880,579	\$ 139,652	\$ 2,020,231
Commercial real estate	3,524,344	187,137	3,711,481
Total commercial and commercial real estate	5,404,923	326,789	5,731,712
Agricultural and agricultural real estate	471,642	93,766	565,408
Residential real estate	645,478	28,125	673,603
Consumer	425,451	14,707	440,158
Total gross loans receivable held to maturity	\$ 6,947,494	\$ 463,387	\$ 7,410,881
December 31, 2017			
Commercial	\$ 1,552,783	\$ 93,823	\$ 1,646,606
Commercial real estate	2,985,501	177,768	3,163,269
Total commercial and commercial real estate	4,538,284	271,591	4,809,875
Agricultural and agricultural real estate	451,539	60,049	511,588
Residential real estate	586,623	37,656	624,279
Consumer	432,936	14,548	447,484
Total gross loans receivable held to maturity	\$ 6,009,382	\$ 383,844	\$ 6,393,226

The nonpass category in the table above is comprised of approximately 52% special mention and 48% substandard as of December 31, 2018. The percentage of nonpass loans on nonaccrual status as of December 31, 2018, was 16%. As of December 31, 2017, the nonpass category in the table above was comprised of approximately 52% special mention and 48% substandard. The percentage of nonpass loans on nonaccrual status as of December 31, 2017, was 16%. Loans delinquent 30-89 days as a percentage of total loans were 0.21% at December 31, 2018, and 0.27% at December 31, 2017. Changes in credit risk are monitored on a continuous basis and changes in risk ratings are made when identified. All impaired loans are reviewed at least annually.

As of December 31, 2018, Heartland had \$2.4 million of loans secured by residential real estate property that were in the process of foreclosure.

Loans are considered past due if the required principal and interest payments have not been received as of the date such payments were due. Heartland's policy is to discontinue the accrual of interest income on any loan when, in the opinion of management, there is a reasonable doubt as to the timely collection of the interest and principal, normally when a loan is 90 days past due. When interest accruals are deemed uncollectible, interest credited to income in the current year is reversed and interest accrued in prior years is charged to the allowance for loan losses. A loan can be restored to accrual status if the borrower has resumed paying the full amount of the scheduled contractual interest and principal payments on the loan, and (1) all principal and interest amounts contractually due (including arrearages) are reasonably assured of repayment within a reasonable period of time, and (2) that there is a sustained period of repayment performance (generally a minimum of six months) by the borrower in accordance with the scheduled contractual terms.

The following table sets forth information regarding Heartland's accruing and nonaccrual loans at December 31, 2018, and December 31, 2017, in thousands:

	Accruing Loans						
	30-59 Days Past Due	60-89 Days Past Due	90 Days or More Past Due	Total Past Due	Current	Nonaccrual	Total Loans
December 31, 2018							
Commercial	\$ 2,574	\$ 205	\$ —	\$ 2,779	\$ 1,991,525	\$ 25,927	\$ 2,020,231
Commercial real estate	4,819	—	726	5,545	3,694,259	11,677	3,711,481
Total commercial and commercial real estate	7,393	205	726	8,324	5,685,784	37,604	5,731,712
Agricultural and agricultural real estate	99	—	—	99	549,376	15,933	565,408
Residential real estate	5,147	49	—	5,196	655,329	13,078	673,603
Consumer	2,724	307	—	3,031	431,799	5,328	440,158
Total gross loans receivable held to maturity	\$ 15,363	\$ 561	\$ 726	\$ 16,650	\$ 7,322,288	\$ 71,943	\$ 7,410,881
December 31, 2017							
Commercial	\$ 1,246	\$ 259	\$ 100	\$ 1,605	\$ 1,637,773	\$ 7,228	\$ 1,646,606
Commercial real estate	4,769	2,326	—	7,095	3,139,576	16,598	3,163,269
Total commercial and commercial real estate	6,015	2,585	100	8,700	4,777,349	23,826	4,809,875
Agricultural and agricultural real estate	604	134	—	738	497,546	13,304	511,588
Residential real estate	2,022	270	—	2,292	601,120	20,867	624,279
Consumer	4,734	943	730	6,407	436,493	4,584	447,484
Total gross loans receivable held to maturity	\$ 13,375	\$ 3,932	\$ 830	\$ 18,137	\$ 6,312,508	\$ 62,581	\$ 6,393,226

The majority of Heartland's impaired loans are those that are nonaccrual, are past due 90 days or more and still accruing or have had their terms restructured in a troubled debt restructuring. The following tables present the unpaid principal balance that was contractually due at December 31, 2018, and December 31, 2017, the outstanding loan balance recorded on the consolidated balance sheets at December 31, 2018, and December 31, 2017, any related allowance recorded for those loans as of December 31, 2018, and December 31, 2017, the average outstanding loan balance recorded on the consolidated balance sheets during the years ended December 31, 2018, and December 31, 2017, and the interest income recognized on the impaired loans during the year ended December 31, 2018, and year ended December 31, 2017, in thousands:

	Unpaid Principal Balance	Loan Balance	Related Allowance Recorded	Year-to-Date Avg. Loan Balance	Year-to-Date Interest Income Recognized
December 31, 2018					
Impaired loans with a related allowance:					
Commercial	\$ 12,376	\$ 12,366	\$ 5,733	\$ 4,741	\$ 33
Commercial real estate	891	891	218	4,421	25
Total commercial and commercial real estate	13,267	13,257	5,951	9,162	58
Agricultural and agricultural real estate	1,718	1,718	686	2,165	2
Residential real estate	647	647	168	1,138	12
Consumer	1,373	1,373	749	2,934	29
Total loans held to maturity	<u>\$ 17,005</u>	<u>\$ 16,995</u>	<u>\$ 7,554</u>	<u>\$ 15,399</u>	<u>\$ 101</u>
Impaired loans without a related allowance:					
Commercial	\$ 13,616	\$ 11,836	\$ —	\$ 10,052	\$ 299
Commercial real estate	13,578	13,497	—	13,000	249
Total commercial and commercial real estate	27,194	25,333	—	23,052	548
Agricultural and agricultural real estate	16,836	14,233	—	14,781	5
Residential real estate	19,604	19,604	—	23,950	308
Consumer	5,631	5,631	—	5,117	97
Total loans held to maturity	<u>\$ 69,265</u>	<u>\$ 64,801</u>	<u>\$ —</u>	<u>\$ 66,900</u>	<u>\$ 958</u>
Total impaired loans held to maturity:					
Commercial	\$ 25,992	\$ 24,202	\$ 5,733	\$ 14,793	\$ 332
Commercial real estate	14,469	14,388	218	17,421	274
Total commercial and commercial real estate	40,461	38,590	5,951	32,214	606
Agricultural and agricultural real estate	18,554	15,951	686	16,946	7
Residential real estate	20,251	20,251	168	25,088	320
Consumer	7,004	7,004	749	8,051	126
Total impaired loans held to maturity	<u>\$ 86,270</u>	<u>\$ 81,796</u>	<u>\$ 7,554</u>	<u>\$ 82,299</u>	<u>\$ 1,059</u>

	Unpaid Principal Balance	Loan Balance	Related Allowance Recorded	Year-to-Date Avg. Loan Balance	Year-to-Date Interest Income Recognized
December 31, 2017					
Impaired loans with a related allowance:					
Commercial	\$ 2,292	\$ 2,292	\$ 1,613	\$ 3,607	\$ 39
Commercial real estate	11,925	10,068	766	11,479	34
Total commercial and commercial real estate	14,217	12,360	2,379	15,086	73
Agricultural and agricultural real estate	1,539	1,539	546	3,437	—
Residential real estate	1,568	1,568	430	2,056	15
Consumer	2,634	2,634	1,400	2,370	41
Total loans held to maturity	<u>\$ 19,958</u>	<u>\$ 18,101</u>	<u>\$ 4,755</u>	<u>\$ 22,949</u>	<u>\$ 129</u>
Impaired loans without a related allowance:					
Commercial	\$ 6,243	\$ 5,123	\$ —	\$ 2,586	\$ 165
Commercial real estate	14,243	13,637	—	20,148	514
Total commercial and commercial real estate	20,486	18,760	—	22,734	679
Agricultural and agricultural real estate	13,793	11,765	—	9,654	—
Residential real estate	25,573	25,573	—	26,024	277
Consumer	4,269	4,269	—	3,884	73
Total loans held to maturity	<u>\$ 64,121</u>	<u>\$ 60,367</u>	<u>\$ —</u>	<u>\$ 62,296</u>	<u>\$ 1,029</u>
Total impaired loans held to maturity:					
Commercial	\$ 8,535	\$ 7,415	\$ 1,613	\$ 6,193	\$ 204
Commercial real estate	26,168	23,705	766	31,627	548
Total commercial and commercial real estate	34,703	31,120	2,379	37,820	752
Agricultural and agricultural real estate	15,332	13,304	546	13,091	—
Residential real estate	27,141	27,141	430	28,080	292
Consumer	6,903	6,903	1,400	6,254	114
Total impaired loans held to maturity	<u>\$ 84,079</u>	<u>\$ 78,468</u>	<u>\$ 4,755</u>	<u>\$ 85,245</u>	<u>\$ 1,158</u>

On May 18, 2018, Heartland completed the acquisition of First Bank Lubbock Bancshares, Inc., parent company of First Bank & Trust, headquartered in Lubbock, Texas. As of May 18, 2018, First Bank Lubbock Bancshares, Inc. had gross loans of \$696.9 million, and the estimated fair value of the loans acquired was \$681.1 million.

On February 23, 2018, Heartland acquired Signature Bancshares, Inc., parent company of Signature Bank, based in Minnetonka, Minnesota. As of February 23, 2018, Signature Bancshares, Inc. had gross loans of \$335.1 million and the estimated fair value of the loans acquired was \$324.5 million. Included in loans acquired from Signature Bancshares, Inc. was a lease portfolio with a fair value of \$16.0 million on the acquisition date. The lease portfolio is included with the commercial loan category for disclosure purposes.

On July 7, 2017, Heartland acquired Citywide Banks of Colorado, Inc., parent company of Citywide Banks, based in Denver, Colorado. As of July 7, 2017, Citywide Banks had gross loans of \$1.00 billion, and the estimated fair value of the loans acquired was \$985.4 million.

On February 28, 2017, Heartland acquired Founders Bancorp, parent company of Founders Community Bank, based in San Luis Obispo, California. As of February 28, 2017, Founders Community Bank had gross loans of \$98.9 million, and the estimated fair value of the loans acquired was \$96.4 million.

Heartland uses the acquisition method of accounting for purchased loans in accordance with ASC 805, "Business Combinations." Purchased loans acquired in a business combination are recorded at estimated fair value on their purchase date, but the purchaser

cannot carry over the related allowance for loan losses. Purchased loans are accounted for under ASC 310-30, "*Loans and Debt Securities with Deteriorated Credit Quality*," when the loans have evidence of credit deterioration since origination, and when at the date of the acquisition, it is probable that Heartland will not collect all contractually required principal and interest payments. Evidence of credit quality deterioration at the purchase date includes statistics such as past due and nonaccrual status. Generally, acquired loans that meet Heartland's definition for nonaccrual status fall within the scope of ASC 310-30. The difference between contractually required payments at acquisition and the cash flows expected to be collected at acquisition is referred to as the nonaccretable difference, which is included in the carrying value of the loans. Subsequent decreases to the expected cash flows of the loan will generally result in a provision for loan losses. Subsequent increases in cash flows result in a reversal of the provision for loan losses to the extent of prior charges, or a reclassification of the difference from nonaccretable to accretable with a positive impact on future interest income. Further, any excess of cash flows expected at acquisition over the estimated fair value is referred to as the accretable yield and is recognized into interest income over the remaining life of the loan when there is a reasonable expectation about the amount and timing of such cash flows.

The carrying amount of the acquired loans at December 31, 2018, and December 31, 2017, consisted of purchased impaired and nonimpaired purchased loans as summarized in the following table, in thousands:

	December 31, 2018			December 31, 2017		
	Impaired Purchased Loans	Non Impaired Purchased Loans	Total Purchased Loans	Impaired Purchased Loans	Non Impaired Purchased Loans	Total Purchased Loans
Commercial	\$ 3,801	\$ 243,693	\$ 247,494	\$ 952	\$ 187,375	\$ 188,327
Commercial real estate	158	1,098,171	1,098,329	2,572	1,052,469	1,055,041
Agricultural and agricultural real estate	—	27,115	27,115	—	1,242	1,242
Residential real estate	231	184,389	184,620	214	173,909	174,123
Consumer loans	—	75,773	75,773	—	51,292	51,292
Total Covered Loans	\$ 4,190	\$ 1,629,141	\$ 1,633,331	\$ 3,738	\$ 1,466,287	\$ 1,470,025

Changes in accretable yield on acquired loans with evidence of credit deterioration at the date of acquisition for the years ended December 31, 2018, and December 31, 2017, are presented in the table below, in thousands:

	For the Years Ended	
	December 31, 2018	December 31, 2017
Balance at beginning of year	\$ 57	\$ 182
Original yield discount, net, at date of acquisitions	508	—
Accretion	(1,743)	(1,591)
Reclassification from nonaccretable difference ⁽¹⁾	1,405	1,466
Balance at end of year	\$ 227	\$ 57

(1) Represents increases in estimated cash flows expected to be received, primarily due to lower estimated credit losses.

For loans acquired since January 2015, on the acquisition dates the preliminary estimate of the contractually required payments receivable for all loans with evidence of credit deterioration since origination was \$36.9 million and the estimated fair value of the loans was \$21.8 million. At December 31, 2018, a majority of these loans were valued based upon the liquidation value of the underlying collateral, because the expected cash flows are primarily based on the liquidation of underlying collateral and the timing and amount of the cash flows could not be reasonably estimated. There was an allowance for loan losses of \$57,000 and \$139,000, at December 31, 2018, and December 31, 2017, respectively, related to these ASC 310-30 loans. Provision expense of \$719,000 and \$12,000 was recorded for the years ended December 31, 2018, and 2017, respectively, related to these ASC 310-30 loans.

For loans acquired since January 2015, the preliminary estimate on the acquisition dates of the contractually required payments receivable for all nonimpaired loans acquired was \$3.67 billion and the estimated fair value of the loans was \$3.59 billion.

Loans are made in the normal course of business to directors, officers and principal holders of equity securities of Heartland. The terms of these loans, including interest rates and collateral, are similar to those prevailing for comparable transactions and do not involve more than a normal risk of collectability. Changes in such loans during the years ended December 31, 2018 and 2017, were as follows, in thousands:

	2018	2017
Balance at beginning of year	\$ 115,673	\$ 114,305
Advances	44,771	56,652
Repayments	(35,461)	(55,284)
Balance at end of year	<u>\$ 124,983</u>	<u>\$ 115,673</u>

SIX ALLOWANCE FOR LOAN LOSSES

Changes in the allowance for loan losses for the years ended December 31, 2018, 2017 and 2016 were as follows, in thousands:

	2018	2017	2016
Balance at beginning of year	\$ 55,686	\$ 54,324	\$ 48,685
Provision for loan losses	24,013	15,563	11,694
Recoveries on loans previously charged-off	3,549	3,670	5,339
Loans charged-off	(21,285)	(17,871)	(11,394)
Balance at end of year	<u>\$ 61,963</u>	<u>\$ 55,686</u>	<u>\$ 54,324</u>

Changes in the allowance for loan losses by loan category for the years ended December 31, 2018, and December 31, 2017, were as follows, in thousands:

	Commercial	Commercial Real Estate	Agricultural	Residential Real Estate	Consumer	Total
Balance at December 31, 2017	\$ 18,098	\$ 21,950	\$ 4,258	\$ 2,224	\$ 9,156	\$ 55,686
Charge-offs	(7,916)	(1,977)	(1,437)	(372)	(9,583)	(21,285)
Recoveries	978	1,047	13	96	1,415	3,549
Provision	13,345	4,518	2,119	(163)	4,194	24,013
Balance at December 31, 2018	<u>\$ 24,505</u>	<u>\$ 25,538</u>	<u>\$ 4,953</u>	<u>\$ 1,785</u>	<u>\$ 5,182</u>	<u>\$ 61,963</u>

	Commercial	Commercial Real Estate	Agricultural	Residential Real Estate	Consumer	Total
Balance at December 31, 2016	\$ 14,765	\$ 24,319	\$ 4,210	\$ 2,263	\$ 8,767	\$ 54,324
Charge-offs	(4,640)	(2,712)	(2,916)	(800)	(6,803)	(17,871)
Recoveries	811	1,192	18	358	1,291	3,670
Provision	7,162	(849)	2,946	403	5,901	15,563
Balance at December 31, 2017	<u>\$ 18,098</u>	<u>\$ 21,950</u>	<u>\$ 4,258</u>	<u>\$ 2,224</u>	<u>\$ 9,156</u>	<u>\$ 55,686</u>

Management allocates the allowance for loan losses by pools of risk within each loan portfolio. The allocation of the allowance for loan losses by loan portfolio is made for analytical purposes and is not necessarily indicative of the trend of future loan losses in any particular category. The total allowance for loan losses is available to absorb losses from any segment of the loan portfolio.

SEVEN PREMISES, FURNITURE AND EQUIPMENT

Premises, furniture and equipment, excluding those held for sale, as of December 31, 2018, and December 31, 2017, were as follows, in thousands:

	2018	2017
Land and land improvements	\$ 52,442	\$ 48,621
Buildings and building improvements	170,160	155,209
Furniture and equipment	66,941	64,118
Total	289,543	267,948
Less accumulated depreciation	(102,125)	(95,624)
Premises, furniture and equipment, net	<u>\$ 187,418</u>	<u>\$ 172,324</u>

Depreciation expense on premises, furniture and equipment was \$11.7 million, \$11.1 million and \$10.4 million for 2018, 2017 and 2016, respectively. Depreciation expense on buildings and building improvements of \$5.8 million, \$5.2 million and \$4.9 million for the years ended December 31, 2018, 2017 and 2016 is recorded in occupancy expense on the consolidated statements of income. Depreciation expense on furniture and equipment of \$6.0 million, \$6.0 million and \$5.5 million for the years ended December 31, 2018, 2017 and 2016 is recorded in furniture and equipment expense on the consolidated statements of income.

EIGHT GOODWILL, CORE DEPOSIT INTANGIBLES AND OTHER INTANGIBLE ASSETS

Heartland had goodwill of \$391.7 million at December 31, 2018, and \$236.6 million at December 31, 2017. Heartland conducts its annual internal assessment of the goodwill both collectively and at its subsidiaries as of September 30. There was no goodwill impairment as of the most recent assessment.

Heartland recorded \$121.4 million of goodwill and \$13.9 million of core deposit intangibles in connection with the acquisition of First Bank Lubbock Bancshares, Inc., parent company of First Bank & Trust Company, headquartered in Lubbock, Texas on May 18, 2018.

Heartland recorded \$33.7 million of goodwill and \$7.7 million of core deposit intangibles in connection with the acquisition of Signature Bancshares, Inc., parent company of Signature Bank, headquartered in Minnetonka, Minnesota on February 23, 2018.

Heartland recorded \$95.2 million of goodwill and \$16.0 million of core deposit intangibles in connection with the acquisition of Citywide Banks of Colorado, Inc., parent company of Citywide Banks, headquartered in Aurora, Colorado on July 7, 2017.

Heartland recorded \$13.8 million of goodwill and \$2.5 million of core deposit intangibles in connection with the acquisition of Founders Bancorp, parent company of Founders Community Bank, based in San Luis Obispo, California on February 28, 2017.

The core deposit intangibles recorded with the First Bank Lubbock Bancshares, Inc., Signature Bancshares, Inc., Citywide Banks of Colorado, Inc., and Founders Bancorp acquisitions are not deductible for tax purposes and are expected to be amortized over a period of 10 years on an accelerated basis.

Goodwill related to the First Bank Lubbock Bancshares, Inc., Signature Bancshares, Inc., Citywide Banks of Colorado, Inc., and Founders Bancorp acquisitions resulted from expected operational synergies, increased market presence, cross-selling opportunities, and expanded business lines and is not deductible for tax purposes.

Other intangible assets consist of core deposit intangibles, mortgage servicing rights, customer relationship intangible and commercial servicing rights. The gross carrying amount of other intangible assets and the associated accumulated amortization at December 31, 2018, and December 31, 2017, are presented in the table below, in thousands:

	December 31, 2018			December 31, 2017		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Amortizing intangible assets:						
Core deposit intangibles	\$ 83,640	\$ 36,403	\$ 47,237	\$ 62,008	\$ 27,086	\$ 34,922
Customer relationship intangible	1,177	935	242	1,177	896	281
Mortgage servicing rights	42,228	12,865	29,363	42,139	18,891	23,248
Commercial servicing rights	6,834	5,125	1,709	6,719	4,110	2,609
Total	<u>\$ 133,879</u>	<u>\$ 55,328</u>	<u>\$ 78,551</u>	<u>\$ 112,043</u>	<u>\$ 50,983</u>	<u>\$ 61,060</u>

The following table shows the estimated future amortization expense for amortizable intangible assets, in thousands:

	Core Deposit Intangibles	Customer Relationship Intangible	Mortgage Servicing Rights	Commercial Servicing Rights	Total
Year ending December 31,					
2019	\$ 9,452	\$ 38	\$ 7,341	\$ 463	\$ 17,294
2020	8,230	37	6,292	365	14,924
2021	7,036	35	5,243	320	12,634
2022	5,634	34	4,195	267	10,130
2023	4,934	34	3,146	163	8,277
Thereafter	11,951	64	3,146	131	15,292
Total	<u>\$ 47,237</u>	<u>\$ 242</u>	<u>\$ 29,363</u>	<u>\$ 1,709</u>	<u>\$ 78,551</u>

Projections of amortization expense for mortgage servicing rights are based on existing asset balances and the existing interest rate environment as of December 31, 2018. Heartland's actual experience may be significantly different depending upon changes in mortgage interest rates and market conditions. Mortgage loans serviced for others were \$4.10 billion and \$3.56 billion as of December 31, 2018, and December 31, 2017, respectively. Custodial escrow balances maintained in connection with the mortgage loan servicing portfolio were approximately \$23.7 million and \$17.3 million as of December 31, 2018, and December 31, 2017, respectively. The fair value of Heartland's mortgage servicing rights was estimated at \$48.7 million and \$37.1 million at December 31, 2018, and December 31, 2017, respectively.

Heartland acquired the right to service mortgage loans totaling \$640.7 million and a fair value of \$7.0 million with the First Bank Lubbock Bancshares, Inc. transaction that closed on May 18, 2018. Heartland's mortgage servicing rights portfolio is comprised of loans serviced for the Federal National Mortgage Association ("FNMA") and the Federal Home Loan Mortgage Corporation ("FHLMC"). Prior to the third quarter of 2017, Heartland also serviced loans for the Government National Mortgage Association ("GNMA"). The servicing rights portfolio is separated into 15- and 30-year tranches, and the servicing rights portfolio is an asset of two of Heartland's subsidiaries.

During the third quarter of 2017, Heartland entered into an agreement to sell substantially all of its GNMA servicing portfolio, which contained loans with an unpaid principal balance of approximately \$773.9 million. The transaction qualified as a sale, and \$6.9 million of mortgage servicing rights were de-recognized on the consolidated balance sheet as of December 31, 2017.

The fair value of mortgage servicing rights is calculated based upon a discounted cash flow analysis. Cash flow assumptions, including prepayment speeds, servicing costs and escrow earnings are considered in the calculation. The range of average constant prepayment rates for the valuations was 7.52% and 10.30% as of December 31, 2018 compared to 9.73% at December 31, 2017. The range of discount rates for the valuations was 9.03% and 9.04% at December 31, 2018 compared to 9.06% at December 31, 2017. The average capitalization rate for 2018 ranged from 84 to 125 basis points and for 2017 from 91 to 150 basis points. Fees collected for the servicing of mortgage loans for others were \$9.9 million, \$11.6 million and \$12.1 million for the years ended December 31, 2018, 2017 and 2016, respectively.

The following table summarizes, in thousands, the changes in capitalized mortgage servicing rights for the twelve months ended December 31, 2018, and December 31, 2017:

	2018	2017
Balance at January 1	\$ 23,248	\$ 32,088
Originations	5,045	7,149
Amortization	(5,867)	(9,049)
Sale of mortgage servicing rights	—	(6,940)
Acquired mortgage servicing rights	6,995	—
Valuation allowance on servicing rights	(58)	—
Balance at December 31	\$ 29,363	\$ 23,248
Fair value of mortgage servicing rights	\$ 48,680	\$ 37,081
Mortgage servicing rights, net to servicing portfolio	0.72%	0.65%

Heartland's commercial servicing portfolio is comprised of loans guaranteed by the Small Business Administration and United States Department of Agriculture that have been sold with servicing retained by Heartland, which totaled \$107.4 million at December 31, 2018 and \$139.9 million at December 31, 2017. The commercial servicing rights portfolio is separated into two tranches at the respective Heartland subsidiary, loans with a term of less than 20 years and loans with a term of more than 20 years. Fees collected for the servicing of commercial loans for others were \$1.6 million and \$1.7 million for the years ended December 31, 2018 and 2017, respectively.

The fair value of each commercial servicing rights portfolio is calculated based upon a discounted cash flow analysis. Cash flow assumptions, including prepayment speeds and servicing costs, are considered in the calculation. The range of average constant prepayment rates for the portfolio valuations was 11.01% and 13.50% as of December 31, 2018 compared to 7.27% and 8.88% as of December 31, 2017. The discount rate range was 13.44% and 16.96% for the December 31, 2018 valuations compared to 13.04% and 15.49% for the December 31, 2017 valuations. The capitalization rate ranged from 310 to 445 basis points at both December 31, 2018 and 2017. The total fair value of Heartland's commercial servicing rights portfolios was estimated at \$2.1 million as of December 31, 2018, and \$3.2 million as of December 31, 2017.

The following table summarizes, in thousands, the changes in capitalized commercial servicing rights for the twelve months ended December 31, 2018, and December 31, 2017:

	2018	2017
Balance at January 1,	\$ 2,609	\$ 3,690
Originations	115	209
Amortization	(1,027)	(1,311)
Purchased commercial servicing rights	—	—
Valuation allowance on servicing rights	12	21
Balance at December 31,	\$ 1,709	\$ 2,609
Fair value of commercial servicing rights	\$ 2,134	\$ 3,221
Commercial servicing rights, net to servicing portfolio	1.59%	1.87%

Mortgage and commercial servicing rights are initially recorded at fair value in net gains on sale of loans held for sale when they are acquired through loan sales. Fair value is based on market prices for comparable servicing contracts, when available, or based on a valuation model that calculates the present value of estimated future net servicing income.

Mortgage and commercial servicing rights are subsequently measured using the amortization method, which requires the asset to be amortized into noninterest income in proportion to, and over the period of, the estimated future net servicing income of the underlying loans. Servicing rights are evaluated for impairment at each Heartland subsidiary based upon the fair value of the assets as compared to the carrying amount. Impairment is recognized through a valuation allowance for specific tranches to the extent that fair value is less than carrying amount at each Heartland subsidiary. At December 31, 2018, a \$20,000 valuation allowance was required on the mortgage servicing rights 15-year tranche and a \$38,000 valuation allowance was required on the mortgage servicing rights 30-year tranche. At December 31, 2017, no valuation allowance was required on the 15- and 30-year tranches for mortgage servicing rights. At December 31, 2018, no valuation allowance was required on commercial servicing rights with an original term of less than 20 years and no valuation allowance was required on commercial servicing rights with an original term of greater than 20 years. At December 31, 2017, no valuation allowance was required on commercial servicing rights with an

original term of less than 20 years and a \$12,000 valuation allowance was required on commercial servicing rights with an original term of greater than 20 years.

The following table summarizes, in thousands, the book value, the fair value of each tranche of the mortgage servicing rights and any recorded valuation allowance at each respective subsidiary at December 31, 2018 and December 31, 2017:

December 31, 2018	Book Value 15-Year Tranche	Fair Value 15-Year Tranche	Impairment 15-Year Tranche	Book Value 30-Year Tranche	Fair Value 30-Year Tranche	Impairment 30-Year Tranche
Dubuque Bank and Trust Company	\$ 2,195	\$ 4,636	\$ —	\$ 20,025	\$ 36,901	\$ —
First Bank & Trust	1,685	1,665	20	5,516	5,478	38
Total	\$ 3,880	\$ 6,301	\$ 20	\$ 25,541	\$ 42,379	\$ 38
December 31, 2017						
Dubuque Bank and Trust Company	\$ 2,858	\$ 4,988	\$ —	\$ 20,390	\$ 32,093	\$ —
Total	\$ 2,858	\$ 4,988	\$ —	\$ 20,390	\$ 32,093	\$ —

The following table summarizes, in thousands, the book value, the fair value of each tranche of the commercial servicing rights and any recorded valuation allowance at each respective subsidiary at December 31, 2018 and December 31, 2017:

	Book Value- Less than 20 Years	Fair Value- Less than 20 Years	Impairment- Less than 20 Years	Book Value- More than 20 Years	Fair Value- More than 20 Years	Impairment- More than 20 Years
December 31, 2018						
Citywide Banks	\$ 1	\$ 6	\$ —	\$ 18	\$ 20	\$ —
Premier Valley Bank	45	74	—	178	184	—
Wisconsin Bank & Trust	249	411	—	1,218	1,439	—
Total	\$ 295	\$ 491	\$ —	\$ 1,414	\$ 1,643	\$ —
December 31, 2017						
Citywide Banks	\$ 8	\$ 11	\$ —	\$ 34	\$ 37	\$ —
Premier Valley Bank	83	110	—	303	291	12
Wisconsin Bank & Trust	446	619	—	1,747	2,153	—
Total	\$ 537	\$ 740	\$ —	\$ 2,084	\$ 2,481	\$ 12

NINE DEPOSITS

At December 31, 2018, the scheduled maturities of time certificates of deposit were as follows, in thousands:

2019	\$ 666,994
2020	211,534
2021	70,004
2022	34,858
2023	24,366
Thereafter	15,974
	\$ 1,023,730

The aggregate amount of time certificates of deposit in denominations of \$100,000 or more as of December 31, 2018, and December 31, 2017, were \$585.7 million and \$402.7 million, respectively. The aggregate amount of time certificates of deposit in denominations of \$250,000 or more as of December 31, 2018, and December 31, 2017 were \$307.1 million and \$212.4 million, respectively.

Interest expense on deposits for the years ended December 31, 2018, 2017, and 2016, was as follows, in thousands:

	2018	2017	2016
Savings and money market accounts	\$ 25,123	\$ 11,107	\$ 8,000
Time certificates of deposit in denominations of \$100,000 or more	4,789	3,016	3,178
Other time deposits	5,755	4,156	4,761
Interest expense on deposits	<u>\$ 35,667</u>	<u>\$ 18,279</u>	<u>\$ 15,939</u>

TEN

SHORT-TERM BORROWINGS

Short-term borrowings, which Heartland defines as borrowings with an original maturity of one year or less, as of December 31, 2018, and 2017, were as follows, in thousands:

	2018	2017
Securities sold under agreement to repurchase	\$ 80,124	\$ 107,957
Federal funds purchased	35,400	168,250
Advances from the FHLB	100,838	40,000
Other short-term borrowings	10,648	8,484
Total	<u>\$ 227,010</u>	<u>\$ 324,691</u>

At December 31, 2018, Heartland had one revolving credit line with an unaffiliated bank with borrowing capacity of \$30.0 million. The borrowing capacity of this revolving credit line was increased from \$25.0 million to \$30.0 million on June 14, 2018. During 2018, \$25.0 million was drawn and repaid on this credit line. A balance of \$0 was outstanding at both December 31, 2018 and December 31, 2017. In addition to the revolving credit line described above, Heartland entered into another non-revolving credit facility with the same unaffiliated bank, which provided a borrowing capacity not to exceed \$70.0 million when combined with the outstanding balance on the amortizing term loan discussed in Note 11. The borrowing capacity was reduced to \$70.0 million from \$75.0 million on June 14, 2018. The credit facility is non-revolving at a rate of 2.75% over LIBOR, and any outstanding balance is due on June 14, 2019. There was no outstanding balance on the short-term portion of the credit facility at December 31, 2018. Heartland had \$8.3 million of borrowing capacity remaining at December 31, 2018.

The agreement with the unaffiliated bank for the credit facility contains specific financial covenants, all of which Heartland was in compliance with at December 31, 2018 and December 31, 2017.

All retail repurchase agreements as of December 31, 2018, and 2017, were due within twelve months.

Average and maximum balances and rates on aggregate short-term borrowings outstanding during the years ended December 31, 2018, December 31, 2017, and December 31, 2016, were as follows, in thousands:

	2018	2017	2016
Maximum month-end balance	\$ 229,890	\$ 324,691	\$ 399,490
Average month-end balance	152,391	182,846	287,857
Weighted average interest rate for the year	1.19%	0.36%	0.40%
Weighted average interest rate at year-end	1.96%	1.11%	0.29%

Dubuque Bank and Trust Company and Morrill & Janes Bank and Trust Company are participants in the Borrower-In-Custody of Collateral Program at the Federal Reserve Bank of Chicago and the Federal Reserve Bank of Kansas City, respectively, which provides the capability to borrow short-term funds under the Discount Window Program. Advances under this program are collateralized by a portion of the commercial loan portfolio of Dubuque Bank and Trust Company in the amount of \$96.2 million at December 31, 2018, and \$62.2 million at December 31, 2017. Advances collateralized by a portion of Morrill & Janes Bank and Trust Company's commercial loan portfolio were \$16.2 million at December 31, 2018, and \$32.6 million at December 31, 2017. There were no borrowings under the Discount Window Program outstanding at year-end 2018 and 2017.

ELEVEN

OTHER BORROWINGS

Other borrowings, which Heartland defines as borrowings with an original maturity date of more than one year, outstanding at December 31, 2018 and 2017, are shown in the table below, net of discount and issuance costs amortization, in thousands:

	2018	2017
Advances from the FHLB; weighted average interest rates were 4.03% and 3.22% at December 31, 2018 and 2017, respectively	\$ 3,399	\$ 6,702
Wholesale repurchase agreements	—	30,000
Trust preferred securities	130,913	121,886
Senior notes	5,000	11,000
Note payable to unaffiliated bank	58,417	33,667
Contracts payable for purchase of real estate and other assets	1,953	1,881
Subordinated notes	74,143	74,000
Other borrowings	1,080	5,875
Total	<u>\$ 274,905</u>	<u>\$ 285,011</u>

The Heartland banks are members of the FHLB of Des Moines, Chicago, Dallas, San Francisco and Topeka. At December 31, 2018, none of Heartland's FHLB advances had call features. The advances from the FHLB are collateralized by a portion of the Heartland banks' investments in FHLB stock of \$13.3 million and \$11.3 million at December 31, 2018 and 2017, respectively. In addition, the FHLB advances are collateralized with pledges of one- to four-family residential mortgages, commercial and agricultural mortgages and securities totaling \$3.71 billion at December 31, 2018, and \$2.91 billion at December 31, 2017. At December 31, 2018, Heartland had \$1.35 billion of remaining FHLB borrowing capacity.

Heartland has entered into various wholesale repurchase agreements, which had balances totaling \$0 at December 31, 2018 and \$30.0 million at December 31, 2017.

At December 31, 2018, Heartland had thirteen wholly-owned trust subsidiaries that were formed to issue trust preferred securities, which includes trust subsidiaries acquired in acquisitions since 2013. The proceeds from the offerings were used to purchase junior subordinated debentures from Heartland and were in turn used by Heartland for general corporate purposes. Heartland has the option to shorten the maturity date to a date not earlier than the callable date. Heartland may not shorten the maturity date without prior approval of the Board of Governors of the Federal Reserve System, if required. Prior redemption is permitted under certain circumstances, such as changes in tax or regulatory capital rules. Heartland repurchased and retired \$15.0 million of Heartland Statutory Trust IV in 2017. The retired debt was part of an interest rate swap and Citywide Capital Trust V replaced the retired debt in the interest rate swap with no impact to income. Refer to Note 12, "Derivative Financial Instruments," regarding this swap replacement. In connection with these offerings of trust preferred securities, the balance of deferred issuance costs included in other borrowings was \$107,000 as of December 31, 2018. These deferred costs are amortized on a straight-line basis over the life of the debentures. The majority of the interest payments are due quarterly. A schedule of Heartland's trust preferred offerings outstanding, excluding deferred issuance costs, as of December 31, 2018, were as follows, in thousands:

	Amount Issued	Interest Rate	Interest Rate as of 12/31/18⁽¹⁾	Maturity Date	Callable Date
Heartland Financial Statutory Trust IV	\$ 10,310	2.75% over LIBOR	5.54% ⁽²⁾	03/17/2034	03/17/2019
Heartland Financial Statutory Trust V	20,619	1.33% over LIBOR	3.77% ⁽³⁾	04/07/2036	04/07/2019
Heartland Financial Statutory Trust VI	20,619	1.48% over LIBOR	4.27% ⁽⁴⁾	09/15/2037	03/15/2019
Heartland Financial Statutory Trust VII	20,619	1.48% over LIBOR	4.22% ⁽⁵⁾	09/01/2037	03/01/2019
Morrill Statutory Trust I	8,994	3.25% over LIBOR	6.07% ⁽⁶⁾	12/26/2032	03/26/2019
Morrill Statutory Trust II	8,642	2.85% over LIBOR	5.64% ⁽⁷⁾	12/17/2033	03/17/2019
Sheboygan Statutory Trust I	6,440	2.95% over LIBOR	5.74%	09/17/2033	03/17/2019
CBNM Capital Trust I	4,359	3.25% over LIBOR	6.04%	12/15/2034	03/15/2019
Citywide Capital Trust III	6,383	2.80% over LIBOR	5.32%	12/19/2033	04/23/2019
Citywide Capital Trust IV	4,238	2.20% over LIBOR	4.85%	09/30/2034	05/23/2019
Citywide Capital Trust V	11,523	1.54% over LIBOR	4.33%	07/25/2036	03/15/2019
OCGI Statutory Trust III	2,989	3.65% over LIBOR	6.44% ⁽⁸⁾	09/30/2032	03/30/2019
OCGI Capital Trust IV	5,286	2.50% over LIBOR	5.29% ⁽⁹⁾	12/15/2034	03/15/2019
	<u>\$ 131,021</u>				

(1) Effective weighted average interest rate as of December 31, 2018, was 5.56% due to interest rate swap transactions as discussed in Note 12 to Heartland's consolidated financial statements.

(2) Effective interest rate as of December 31, 2018, was 5.01% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(3) Effective interest rate as of December 31, 2018, was 4.69% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(4) Effective interest rate as of December 31, 2018, was 3.87% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(5) Effective interest rate as of December 31, 2018, was 3.83% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(6) Effective interest rate as of December 31, 2018, was 4.92% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(7) Effective interest rate as of December 31, 2018, was 4.51% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(8) Effective interest rate as of December 31, 2018, was 5.53% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

(9) Effective interest rate as of December 31, 2018, was 4.37% due to an interest rate swap transaction as discussed in Note 12 to Heartland's consolidated financial statements.

For regulatory purposes, \$130.9 million and \$121.9 million of the trust preferred securities qualified as Tier 1 capital as of December 31, 2018 and 2017, respectively.

The maturity schedule of the remaining senior notes is such that \$5.0 million will mature in 2019. Total senior notes outstanding were \$5.0 million at December 31, 2018 and \$11.0 million on December 31, 2017.

In addition to the credit line described in Note 10, "Short-Term Borrowings," Heartland entered into another non-revolving credit facility with the same unaffiliated bank, which provided a borrowing capacity not to exceed \$70.0 million when combined with the outstanding balance on its then existing amortizing term loan with the same unaffiliated bank. The borrowing capacity was reduced to \$70.0 million from \$75.0 million on June 14, 2018. On May 10, 2016, \$40.0 million of this variable rate non-revolving credit facility was swapped to a fixed rate of 2.50% over LIBOR with an amortizing term of five years, which is due in April 2021, and was reclassified as long-term debt. At December 31, 2018, a balance of \$58.4 million was outstanding on this term debt compared to \$33.7 million at December 31, 2017. At December 31, 2018, \$8.3 million was available on the non-revolving credit facility, of which no balance was outstanding.

On December 17, 2014, Heartland issued \$75.0 million of subordinated notes with a maturity date of December 30, 2024. The notes were issued at par with an underwriting discount of \$1.1 million. The interest rate on the notes is fixed at 5.75% per annum,

payable semi-annually. The notes were sold to qualified institutional buyers, and the proceeds are being used for general corporate purposes. For regulatory purposes, \$74.1 million of the subordinated notes qualified as Tier 2 capital as of December 31, 2018. In connection with the sale of the notes, the balance of deferred issuance costs included in other borrowings was \$227,000 at December 31, 2018 and \$265,000 at December 31, 2017. These deferred costs are amortized on a straight-line basis over the life of the notes.

Future payments at December 31, 2018, for other borrowings follow in the table below, in thousands. FHLB advances, wholesale repurchase agreements, convertible debt and subordinated debt are included in the table at their call date.

2019	\$ 13,612
2020	8,652
2021	24,665
2022	4,657
2023	3,037
Thereafter	220,282
Total	<u>\$ 274,905</u>

TWELVE DERIVATIVE FINANCIAL INSTRUMENTS

Heartland uses derivative financial instruments as part of its interest rate risk management strategy. As part of the strategy, Heartland considers the use of interest rate swaps, caps, floors and collars and certain interest rate lock commitments and forward sales of securities related to mortgage banking activities. Heartland's current strategy includes the use of interest rate swaps, interest rate lock commitments and forward sales of mortgage securities. In addition, Heartland is facilitating back-to-back loan swaps to assist customers in managing interest rate risk. Heartland's objectives are to add stability to its net interest margin and to manage its exposure to movement in interest rates. The contract or notional amount of a derivative is used to determine, along with the other terms of the derivative, the amounts to be exchanged between the counterparties. Heartland is exposed to credit risk in the event of nonperformance by counterparties to financial instruments. Heartland minimizes this risk by entering into derivative contracts with large, stable financial institutions. Heartland has not experienced any losses from nonperformance by these counterparties. Heartland monitors counterparty risk in accordance with the provisions of ASC 815.

In addition, interest rate-related derivative instruments generally contain language outlining collateral pledging requirements for each counterparty. Collateral must be posted when the market value exceeds certain threshold limits which are determined by credit ratings of each counterparty. Heartland was required to pledge no cash as collateral at December 31, 2018, and \$1.2 million at December 31, 2017. At December 31, 2018, \$770,000 collateral was required to be pledged by Heartland's counterparties compared to no collateral at December 31, 2017.

Heartland's derivative and hedging instruments are recorded at fair value on the consolidated balance sheets. See Note 20, "Fair Value," for additional fair value information and disclosures.

Cash Flow Hedges

Heartland has variable rate funding which creates exposure to variability in interest payments due to changes in interest rates. To manage the interest rate risk related to the variability of interest payments, Heartland has entered into various interest rate swap agreements. Amounts reported in accumulated other comprehensive income related to derivatives will be reclassified to interest expense as interest payments are received or made on Heartland's variable-rate liabilities. For the twelve months ended December 31, 2018, the change in net unrealized losses on cash flow hedges reflects changes in the fair value of the swaps and reclassification from accumulated other comprehensive income to interest expense totaling \$179,000. For the next twelve months, Heartland estimates that cash receipts and reclassification from accumulated other comprehensive income to reduce interest expense will total \$111,000.

Heartland entered into six forward-starting interest rate swap transactions to effectively convert Heartland Financial Statutory Trust IV, V, VI, and VII, which total \$85.0 million, as well as Morrill Statutory Trust I and II, which total \$20.0 million, from variable rate subordinated debentures to fixed rate debt. For accounting purposes, these six swap transactions are designated as cash flow hedges of the changes in LIBOR, the benchmark interest rate being hedged, associated with the interest payments made on \$105.0 million of Heartland's subordinated debentures that reset quarterly on a specified reset date. At inception, Heartland asserted that the underlying principal balance would remain outstanding throughout the hedge transaction making it probable that sufficient LIBOR-based interest payments would exist through the maturity date of the swaps.

Heartland entered into an interest rate swap transaction on May 10, 2016, to effectively convert \$40.0 million of amortizing term debt from variable rate debt to fixed rate debt. For accounting purposes, this swap is designated as a cash flow hedge of the changes in LIBOR, the benchmark interest rate being hedged, associated with the interest payments on the amortizing term debt that resets monthly on a specified reset date. The swap expires on May 10, 2021.

During 2017, as noted in Note 11, "Other Borrowings," Heartland repurchased and retired \$15.0 million of Heartland Statutory Trust IV which was part of a \$25.0 million interest rate swap. The retired debt was replaced with the \$15.0 million Citywide Statutory Trust V, which along with the remaining \$10.0 million of Heartland Statutory Trust IV constitutes the underlying hedged items. The replacement of Citywide Trust V as the underlying hedged item had no impact to income.

On May 18, 2018, in connection with the acquisition of First Bank Lubbock Bancshares, Inc., Heartland acquired cash flow hedges related to OCGI Statutory Trust III and OCGI Capital Trust IV with notional amounts of \$3.0 million and \$6.0 million, respectively. The cash flow hedges effectively convert OCGI Statutory Trust III and OCGI Capital Trust IV from variable rate subordinated debentures to fixed rate debt. These swaps are designated as cash flow hedges of the changes in LIBOR, the benchmark interest rate being hedged, associated with the interest payments made on \$9.0 million of Heartland's subordinated debentures that reset quarterly on a specified reset date.

The table below identifies the balance sheet category and fair values of Heartland's derivative instruments designated as cash flow hedges at December 31, 2018, and December 31, 2017, in thousands:

	Notional Amount	Fair Value	Balance Sheet Category	Receive Rate	Weighted Average Pay Rate	Maturity
December 31, 2018						
Interest rate swap	\$ 25,000	\$ 191	Other Assets	2.788%	2.255%	03/17/2021
Interest rate swap	20,000	(177)	Other Liabilities	2.408	3.355	01/07/2020
Interest rate swap	10,000	29	Other Assets	2.822	1.674	03/26/2019
Interest rate swap	10,000	28	Other Assets	2.788	1.658	03/18/2019
Interest rate swap	29,667	763	Other Assets	4.887	3.674	05/10/2021
Interest rate swap	28,750	(572)	Other Liabilities	5.004	5.425	07/24/2028
Interest rate swap	20,000	157	Other Assets	2.788	2.390	06/15/2024
Interest rate swap	20,000	185	Other Assets	2.738	2.352	03/01/2024
Interest rate swap	6,000	105	Other Assets	2.788	1.866	06/15/2021
Interest rate swap	3,000	51	Other Assets	2.787	1.878	06/30/2021
December 31, 2017						
Interest rate swap	\$ 25,000	\$ (106)	Other Liabilities	1.600%	2.255%	03/17/2021
Interest rate swap	20,000	(621)	Other Liabilities	1.350	3.355	01/07/2020
Interest rate swap	10,000	30	Other Assets	1.329	1.674	03/26/2019
Interest rate swap	10,000	29	Other Assets	1.600	1.658	03/18/2019
Interest rate swap	33,667	759	Other Assets	3.932	3.674	05/10/2021
Interest rate swap	20,000	(177)	Other Liabilities	1.588	2.390	06/15/2024
Interest rate swap	20,000	(149)	Other Liabilities	1.481	2.352	03/01/2024

The table below identifies the gains and losses recognized on Heartland's derivative instruments designated as cash flow hedges for the years ended December 31, 2018, and December 31, 2017, in thousands:

	Effective Portion			Ineffective Portion	
	Recognized in OCI	Reclassified from AOCI into Income		Recognized in Income on Derivatives	
	Amount of Gain (Loss)	Category	Amount of Gain (Loss)	Category	Amount of Gain (Loss)
December 31, 2018					
Interest rate swap	\$ 995	Interest expense	\$ (179)	Other income	\$ —
December 31, 2017					
Interest rate swap	\$ 1,500	Interest expense	\$ (1,290)	Other income	\$ —

Fair Value Hedges

Heartland uses interest rate swaps to convert certain long term fixed rate loans to floating rates to hedge interest rate risk exposure. Heartland uses hedge accounting in accordance with ASC 815, with the unrealized gains and losses, representing the change in fair value of the derivative and the change in fair value of the risk being hedged on the related loan, being recorded in the consolidated statements of income. The ineffective portions of the unrealized gains or losses, if any, are recorded in interest income and interest expense in the consolidated statements of income. Heartland uses statistical regression to assess hedge effectiveness, both at the inception of the hedge as well as on a continual basis. The regression analysis involves regressing the periodic change in the fair value of the hedging instrument against the periodic changes in the fair value of the asset being hedged due to changes in the hedge risk.

Heartland was required to pledge \$2.5 million and \$3.9 million of cash as collateral for these fair value hedges at December 31, 2018, and December 31, 2017, respectively.

The table below identifies the notional amount, fair value and balance sheet category of Heartland's fair value hedges at December 31, 2018, and December 31, 2017, in thousands:

	Notional Amount		Fair Value		Balance Sheet Category
December 31, 2018					
Fair value hedges	\$	19,820	\$	74	Other assets
Fair value hedges	\$	15,064	\$	(339)	Other liabilities
December 31, 2017					
Fair value hedges	\$	35,635	\$	(999)	Other liabilities

The table below identifies the gains and losses recognized on Heartland's fair value hedges for the years ended December 31, 2018 and December 31, 2017, in thousands:

	Amount of Gain (Loss)	Income Statement Category
December 31, 2018		
Fair value hedges	\$ 734	Interest income
December 31, 2017		
Fair value hedges	\$ 627	Interest income

Embedded Derivatives

Heartland has fixed rate loans with embedded derivatives. The loans contain terms that affect the cash flows or value of the loan similar to a derivative instrument, and therefore are considered to contain an embedded derivative. The embedded derivatives are bifurcated from the loans because the terms of the derivative instrument are not clearly and closely related to the loans. The embedded derivatives are recorded at fair value on the consolidated balance sheets as a part of other assets, and changes in the fair value are a component of noninterest income. The table below identifies the notional amount, fair value and balance sheet category of Heartland's embedded derivatives as of December 31, 2018, and December 31, 2017, in thousands:

	Notional Amount	Fair Value	Balance Sheet Category
December 31, 2018			
Embedded derivatives	\$ 11,266	\$ 453	Other assets
Embedded derivatives	\$ 2,231	\$ (54)	Other liabilities
December 31, 2017			
Embedded derivatives	\$ 14,045	\$ 738	Other assets

The table below identifies the gains and losses recognized on Heartland's embedded derivatives for the years ended December 31, 2018 and December 31, 2017, in thousands:

	Amount of Gain (Loss)	Income Statement Category
December 31, 2018		
Embedded derivatives	\$ 339	Other noninterest income
December 31, 2017		
Embedded derivatives	\$ 366	Other noninterest income

In conjunction with the CIC Bancshares, Inc., transaction on February 5, 2016, Heartland acquired convertible subordinated debt. The subordinated debt has a face value of \$2.0 million, and the embedded conversion option allows the holder to convert the debt to Heartland common equity in any increment and at the discretion of the holder. The conversion option is bifurcated from the debt because the terms of the conversion option are not clearly and closely related to the terms of the debt. On February 5, 2016, the total number of shares to be issued upon conversion was 73,394.

As of December 31, 2016, the remaining shares to be issued upon conversion totaled 20,481. During 2017, all of the remaining convertible subordinated debt was converted to common stock, resulting in the issuance of 20,481 shares of common stock. At December 31, 2018, the remaining shares to be issued upon conversion totaled \$0 and the notional amount of the embedded conversion option was \$0.

For the years ended December 31, 2018, and December 31, 2017, \$0 and \$422,000, respectively, was recorded in other noninterest income for the embedded conversion option.

Back-to-Back Loan Swaps

Heartland has interest rate swap loan relationships with customers to meet their financing needs. Upon entering into these loan swaps, Heartland enters into offsetting positions with counterparties in order to minimize interest rate risk. These back-to-back loan swaps qualify as free standing financial derivatives with the fair values reported in other assets and other liabilities on the consolidated balance sheets. Heartland was required to post \$2.0 million and \$1.6 million as of December 31, 2018, and December 31, 2017, respectively, as collateral related to these back-to-back swaps. Heartland's counterparties were required to pledge \$680,000 and \$190,000 as of December 31, 2018 and December 31, 2017, respectively, related to these back-to-back swaps. Any gains and losses on these back-to-back swaps are recorded in noninterest income on the consolidated statements of income, and for the years ended December 31, 2018, and December 31, 2017, no gains or losses were recognized. The table below identifies the balance sheet category and fair values of Heartland's derivative instruments designated as loan swaps at December 31, 2018 and 2017, in thousands:

	Notional Amount	Fair Value	Balance Sheet Category	Weighted Average Receive Rate	Weighted Average Pay Rate
December 31, 2018					
Customer interest rate swaps	\$ 211,246	\$ 4,449	Other Assets	5.10%	4.96%
Customer interest rate swaps	211,246	(4,449)	Other Liabilities	4.96%	5.10%
December 31, 2017					
Customer interest rate swaps	\$ 126,766	\$ 2,377	Other Assets	4.70%	4.03%
Customer interest rate swaps	126,766	(2,377)	Other Liabilities	4.03%	4.70%

Other Free Standing Derivatives

Heartland has entered into interest rate lock commitments to originate residential mortgage loans held for sale and forward commitments to sell residential mortgage loans and mortgage backed securities that are considered derivative instruments. Heartland enters into forward commitments for the future delivery of residential mortgage loans when interest rate lock commitments are entered into in order to economically hedge the effect of future changes in interest rates on the commitments to fund the loans as well as on residential mortgage loans available for sale. The fair value of these commitments is recorded on the consolidated balance sheets with the changes in fair value recorded in the consolidated statements of income as a component of gains on sale of loans held for sale. These derivative contracts are designated as free standing derivative contracts and are not designated against specific assets and liabilities on the consolidated balance sheets or forecasted transactions and therefore do not qualify for hedge accounting treatment. Heartland was required to pledge \$35,000 and \$20,000 at December 31, 2018, and December 31, 2017, respectively, as collateral for these forward commitments. Heartland's counterparties were required to pledge no cash as collateral at December 31, 2018, and \$29,000 at December 31, 2017, as collateral for these forward commitments.

Heartland acquired undesignated interest rate swaps in 2015. These swaps were entered into primarily for the benefit of customers seeking to manage their interest rate risk and are not designated against specific assets or liabilities on the consolidated balance sheet or forecasted transactions and therefore do not qualify for hedge accounting in accordance with ASC 815. These swaps are carried at fair value on the consolidated balance sheets as a component of other liabilities, with changes in the fair value recorded as a component of other noninterest income.

The table below identifies the balance sheet category and fair values of Heartland's other free standing derivative instruments not designated as hedging instruments at December 31, 2018, and December 31, 2017, in thousands:

	Notional Amount	Fair Value	Balance Sheet Category
December 31, 2018			
Interest rate lock commitments (mortgage)	\$ 22,451	\$ 725	Other Assets
Forward commitments	—	—	Other Assets
Forward commitments	51,500	(399)	Other Liabilities
Undesignated interest rate swaps	11,266	(453)	Other Liabilities
Undesignated interest rate swaps	2,231	54	Other Assets
December 31, 2017			
Interest rate lock commitments (mortgage)	\$ 53,588	\$ 1,738	Other Assets
Forward commitments	37,286	80	Other Assets
Forward commitments	118,632	(232)	Other Liabilities
Undesignated interest rate swaps	14,045	(738)	Other Liabilities

The table below identifies the income statement category of the gains and losses recognized in income on Heartland's other free standing derivative instruments not designated as hedging instruments for the years ended December 31, 2018, and December 31, 2017, in thousands:

	Income Statement Category	Year-to-Date Gain (Loss) Recognized
December 31, 2018		
Interest rate lock commitments (mortgage)	Net gains on sale of loans held for sale	\$ (3,269)
Forward commitments	Net gains on sale of loans held for sale	(170)
Forward commitments	Net gains on sale of loans held for sale	(161)
Undesignated interest rate swaps	Other noninterest income	339
December 31, 2017		
Interest rate lock commitments (mortgage)	Net gains on sale of loans held for sale	\$ (1,479)
Forward commitments	Net gains on sale of loans held for sale	(2,466)
Forward commitments	Net gains on sale of loans held for sale	34
Undesignated interest rate swaps	Other noninterest income	388

THIRTEEN INCOME TAXES

The current income tax provision reflects the tax consequences of revenue and expenses currently taxable or deductible on various income tax returns for the year reported. The deferred income tax provision generally reflects the net change in deferred income tax assets and liabilities during the year, excluding any deferred income tax assets and liabilities of acquired businesses. The components of the provision for income taxes for the years ended December 31, 2018, 2017 and 2016 were as follows, in thousands:

	2018	2017	2016
Current:			
Federal	\$ 16,769	\$ 25,532	\$ 23,724
State	8,686	5,025	5,670
Total current	<u>\$ 25,455</u>	<u>\$ 30,557</u>	<u>\$ 29,394</u>
Deferred:			
Federal	\$ 2,615	\$ 12,370	\$ 5,497
State	145	893	1,665
Total deferred	<u>\$ 2,760</u>	<u>\$ 13,263</u>	<u>\$ 7,162</u>
Total income tax expense	<u><u>\$ 28,215</u></u>	<u><u>\$ 43,820</u></u>	<u><u>\$ 36,556</u></u>

In response to the enactment of the Tax Cuts and Jobs Act on December 22, 2017, which reduced the corporate federal tax rate from a graduated maximum 35% to a flat 21%, Heartland recorded \$10.4 million of income tax expense in 2017 to adjust the value of its deferred tax assets and liabilities.

Temporary differences between the amounts reported in the financial statements and the tax basis of assets and liabilities result in deferred taxes. Deferred tax assets and liabilities at December 31, 2018 and 2017, with the 2017 amounts adjusted for the impact of the Tax Cuts and Jobs Act, were as follows, in thousands:

	2018	2017
Deferred tax assets:		
Tax effect of net unrealized loss on securities available for sale reflected in stockholders' equity	\$ 11,148	\$ 8,320
Tax effect of net unrealized loss on derivatives reflected in stockholders' equity	—	60
Allowance for loan losses	16,682	14,221
Deferred compensation	7,042	4,240
Organization and acquisitions costs	319	369
Net operating loss carryforwards	14,495	16,580
Non-accrual loan interest	863	710
OREO write-downs	1,469	1,835
Rehab tax credit projects	5,254	4,303
Mortgage repurchase obligation	69	68
Other	1,892	1,974
Gross deferred tax assets	<u>59,233</u>	<u>52,680</u>
Valuation allowance	<u>(12,125)</u>	<u>(10,493)</u>
Gross deferred tax assets	<u><u>\$ 47,108</u></u>	<u><u>\$ 42,187</u></u>

Deferred tax liabilities:

Tax effect of net unrealized gain on derivatives reflected in stockholders' equity	\$ (160)	\$ —
Securities	(2,332)	(478)
Premises, furniture and equipment	(6,514)	(5,798)
Tax bad debt reserves	(427)	(428)
Purchase accounting	(6,339)	(4,417)
Prepaid expenses	(203)	(526)
Mortgage servicing rights	(7,933)	(7,045)
Deferred loan fees	(3,321)	(2,651)
Other	(380)	(255)
Gross deferred tax liabilities	\$ (27,609)	\$ (21,598)
Net deferred tax asset	\$ 19,499	\$ 20,589

The deferred tax assets (liabilities) related to net unrealized gains (losses) on securities available for sale and on derivatives had no effect on income tax expense as these gains and losses, net of taxes, were recorded in other comprehensive income, other than for the effect of the federal tax rate. In 2017, the effect of the enacted change in the federal corporate tax rate resulted in tax expense totaling \$4.5 million to adjust the deferred tax assets (liabilities) related to net unrealized gains (losses) on securities available for sale and on derivatives.

As a result of acquisitions, Heartland had net operating loss carryforwards for federal income tax purposes of approximately \$24.4 million at December 31, 2018, and \$36.0 million at December 31, 2017. The associated deferred tax asset was \$5.1 million at December 31, 2018, and \$8.4 million at December 31, 2017. These net carryforwards expire during the period from December 31, 2026, through December 31, 2037, and are subject to an annual limitation of approximately \$4.9 million. Net operating loss carryforwards for state income tax purposes were approximately \$121.1 million at December 31, 2018, and \$113.3 million at December 31, 2017. The associated deferred tax asset, net of federal tax, was \$9.4 million at December 31, 2018, and \$8.2 million at December 31, 2017. These carryforwards have begun to expire and will continue to do so until December 31, 2037.

A valuation allowance against the deferred tax asset due to the uncertainty surrounding the utilization of these state net operating loss carryforwards was \$8.1 million at December 31, 2018, and \$6.6 million at December 31, 2017. During both 2018 and 2017, Heartland had book write-downs on investments that, for tax purposes, would generate capital losses upon disposal. Due to the uncertainty of Heartland's ability to utilize the potential capital losses, a valuation allowance for these potential losses totaled \$4.0 million at December 31, 2018, and \$3.9 million at December 31, 2017.

Realization of the deferred tax asset over time is dependent upon the existence of taxable income in carryback periods or the ability to generate sufficient taxable income in future periods. In determining that realization of the deferred tax asset was more likely than not, Heartland gave consideration to a number of factors, including its taxable income during carryback periods, its recent earnings history, its expectations for earnings in the future and, where applicable, the expiration dates associated with its tax carryforwards.

The actual income tax expense from continuing operations differs from the expected amounts for the years ended December 31, 2018, 2017, and 2016, (computed by applying the U.S. federal corporate tax rate of 21% for 2018 income before income taxes and 35% for 2017 and 2016 income before income taxes) are as follows, in thousands:

	2018	2017	2016
Computed "expected" tax on net income	\$ 30,495	\$ 41,682	\$ 40,917
Increase (decrease) resulting from:			
Nontaxable interest income	(4,423)	(9,282)	(7,960)
State income taxes, net of federal tax benefit	6,976	3,846	4,768
Tax credits	(4,085)	(2,390)	(1,375)
Valuation allowance	23	405	368
Excess tax benefit on stock compensation	(657)	(1,130)	—
Deferred tax adjustment due to Tax Cuts and Jobs Act enactment	—	10,396	—
Other	(114)	293	(162)
Income taxes	\$ 28,215	\$ 43,820	\$ 36,556
Effective tax rates	19.4%	36.8%	31.3%

Heartland's income taxes included solar energy credits totaling \$2.9 million during 2018 and \$449,000 during 2017. Federal historic rehabilitation tax credits included in Heartland's income taxes totaled \$0 during 2018 and \$713,000 during 2017. Additionally, investments in certain low-income housing partnerships totaled \$6.9 million at December 31, 2018, \$7.8 million at December 31, 2017, and \$8.8 million at December 31, 2016. These investments generated federal low-income housing tax credits of \$1.2 million for each year ended December 31, 2018, 2017, and 2016. These investments are expected to generate federal low-income housing tax credits of approximately \$1.1 million for 2019, \$779,000 for 2020, \$538,000 for 2021 through 2023, \$322,000 for 2024, \$86,000 for 2025 and \$34,000 for 2026.

On December 31, 2018, the amount of unrecognized tax benefits was \$611,000, including \$66,000 of accrued interest and penalties. On December 31, 2017, the amount of unrecognized tax benefits was \$481,000, including \$64,000 of accrued interest and penalties. If recognized, the entire amount of the unrecognized tax benefits would affect the effective tax rate.

The tax years ended December 31, 2015, and later remain subject to examination by the Internal Revenue Service. For state purposes, the tax years ended December 31, 2013, and later remain open for examination. Heartland does not anticipate any significant increase or decrease in unrecognized tax benefits during the next twelve months.

FOURTEEN EMPLOYEE BENEFIT PLANS

Heartland sponsors a defined contribution retirement plan covering substantially all employees. Contributions to this plan are subject to approval by the Heartland Board of Directors. The Heartland subsidiaries fund and record as an expense all approved contributions. Costs of these contributions, charged to operating expenses, were \$4.0 million, \$4.1 million, and \$3.9 million for 2018, 2017 and 2016, respectively. This plan includes an employee savings program, under which the Heartland subsidiaries make matching contributions of up to 3% of the participants' wages in 2018, 2017 and 2016. Costs charged to operating expenses with respect to the matching contributions were \$3.5 million, \$3.3 million, and \$2.9 million for 2018, 2017 and 2016, respectively. Contributions to the defined contribution retirement plan and the employee savings program are limited to a maximum amount of the participant's wages as defined by federal law.

FIFTEEN

COMMITMENTS AND CONTINGENT LIABILITIES

Heartland leases certain land and facilities under operating leases. Minimum future rental commitments at December 31, 2018 for all non-cancelable leases were as follows, in thousands:

2019	\$ 5,776
2020	5,493
2021	5,102
2022	3,241
2023	2,297
Thereafter	12,419
	<u>\$ 34,328</u>

Rental expense for premises and equipment leased under operating leases was \$8.7 million, \$8.0 million, and \$7.4 million for 2018, 2017 and 2016, respectively. Some of the Heartland banks lease or sublease portions of the office space they own to third parties. Occupancy expense is presented net of rental income of \$1.7 million, \$1.1 million, and \$986,000 for 2018, 2017 and 2016, respectively.

Heartland utilizes a variety of financial instruments in the normal course of business to meet the financial needs of customers and to manage its exposure to fluctuations in interest rates. These financial instruments include lending related and other commitments as indicated below as well as derivative instruments shown in Note 12, "Derivative Financial Instruments." The Heartland banks make various commitments and incur certain contingent liabilities that are not presented in the accompanying consolidated financial statements. The commitments and contingent liabilities include various guarantees, commitments to extend credit and standby letters of credit.

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since many of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. The Heartland banks evaluate each customer's creditworthiness on a case-by-case basis. The amount of collateral obtained, if deemed necessary by the Heartland banks upon extension of credit, is based upon management's credit evaluation of the counterparty. Collateral held varies but may include accounts receivable, inventory, property, plant and equipment and income-producing commercial properties. Standby letters of credit and financial guarantees written are conditional commitments issued by the Heartland banks to guarantee the performance of a customer to a third party. Those guarantees are primarily issued to support public and private borrowing arrangements. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities to customers. At December 31, 2018, and at December 31, 2017, commitments to extend credit aggregated \$2.47 billion and \$1.96 billion, respectively, and standby letters of credit aggregated \$71.9 million and \$55.5 million, respectively.

Heartland enters into commitments to sell mortgage loans to reduce interest rate risk on certain mortgage loans held for sale and loan commitments, which were recorded in the consolidated balance sheets at their fair values. Heartland does not anticipate any material loss as a result of the commitments and contingent liabilities. Residential mortgage loans sold to others are predominantly conventional residential first lien mortgages originated under Heartland's usual underwriting procedures, and are most often sold on a nonrecourse basis. Heartland's agreements to sell residential mortgage loans in the normal course of business, primarily to GSE's, which usually require certain representations and warranties on the underlying loans sold, related to credit information, loan documentation, collateral, and insurability, which if subsequently are untrue or breached, could require Heartland to repurchase certain loans affected. Heartland had a recorded repurchase obligation of \$313,000 and \$238,000 at December 31, 2018, and December 31, 2017, respectively, which is included in other liabilities on the consolidated balance sheet. Heartland had no new requests for repurchases during 2018 and 2017.

Heartland has a loss reserve for unfunded commitments, including loan commitments and letters of credit. At December 31, 2018, and December 31, 2017, the reserve for unfunded commitments, which is included in other liabilities on the consolidated balance sheets, was approximately \$172,000 and \$153,000, respectively. The appropriateness of the reserve for unfunded commitments is reviewed on a quarterly basis, based upon changes in the amounts of commitments, delinquencies and economic conditions.

There are certain legal proceedings pending against Heartland and its subsidiaries at December 31, 2018, that are ordinary routine litigation incidental to business. While the ultimate outcome of current legal proceedings cannot be predicted with certainty, it is

the opinion of management that the resolution of these legal actions should not have a material effect on Heartland's consolidated financial position or results of operations.

SIXTEEN STOCK-BASED COMPENSATION

Heartland may grant, through its Nominating and Compensation Committee (the "Compensation Committee") non-qualified and incentive stock options, stock appreciation rights, stock awards, restricted stock, restricted stock units and other equity-based incentive awards, under its 2012 Long-Term Incentive Plan (the "Plan"). The Plan was originally approved by stockholders in May 2012 and was amended and restated effective March 8, 2016, to increase the number of shares of common stock authorized for issuance and make certain other changes to the Plan. At December 31, 2018, 437,893 shares of common stock were reserved for future issuance under awards that may be granted under the Plan to employees and directors of, and service providers to, Heartland or its subsidiaries.

FASB ASC Topic 718, "*Compensation-Stock Compensation*" requires the measurement of the cost of employee services received in exchange for an award of equity instruments based upon the fair value of the award on the grant date. The cost of the award is based upon its fair value estimated on the date of grant and recognized in the consolidated statements of income over the vesting period of the award. The fair market value of restricted stock and restricted stock units is based on the fair value of the underlying shares of common stock on the date of grant. The fair value of stock options is estimated on the date of grant using the Black-Scholes model. Forfeitures are accounted for as they occur.

The amount of tax benefit related to the exercise, vesting, and forfeiture of equity-based awards reflected as a tax benefit in Heartland's income tax expense was \$674,000 and \$1.2 million for the years ended December 31, 2018, and 2017, respectively.

Options

Although the Plan provides authority to the Compensation Committee to grant stock options, no options were granted during the years ended December 31, 2018, 2017 and 2016. Prior to 2009, options were typically granted annually with an expiration date 10 years after the date of grant. Vesting was generally over a five-year service period with portions of a grant becoming exercisable at three years, four years and five years after the date of grant. The exercise price of stock options granted is established by the Compensation Committee, but the exercise price for the stock options may not be less than the fair market value of the shares on the date that the options are granted or, if greater, the par value of a share of common stock. A summary of the status of Heartland's common stock options as of December 31, 2018, 2017 and 2016, and changes during the years ended December 31, 2018, 2017 and 2016, follows:

	2018		2017		2016	
	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price
Outstanding at January 1	6,500	\$ 18.60	26,400	\$ 18.60	125,950	\$ 24.08
Granted	—	—	—	—	—	—
Exercised	(6,500)	18.60	(19,400)	18.60	(97,800)	25.59
Forfeited	—	—	(500)	18.60	(1,750)	21.10
Outstanding at December 31	—	\$ —	6,500	\$ 18.60	26,400	\$ 18.60
Options exercisable at December 31	—	\$ —	6,500	\$ 18.60	26,400	\$ 18.60

The intrinsic value for all options exercised during the year ended December 31, 2018, was \$231,000. No shares under stock options vested during the year ended December 31, 2018. There were no compensation costs recorded for stock options for the years ended December 31, 2018, 2017 and 2016. There are no unrecorded compensation costs related to options at December 31, 2018.

Cash received from options exercised for the year ended December 31, 2018, was \$121,000. Cash received from options exercised for the year ended December 31, 2017, was \$361,000.

Restricted Stock Units

The Plan permits the Compensation Committee to grant restricted stock units ("RSUs"). In the first quarter of 2018, the Compensation Committee granted time-based RSUs with respect to 52,153 shares of common stock, and in the first quarter of 2017, the Compensation Committee granted time-based RSUs with respect to 55,655 shares of common stock to selected officers and employees. The time-based RSUs, which represent the right, without payment, to receive shares of Heartland common stock

at a specified date in the future. The time-based RSUs granted in 2018 vest over three years in equal installments on March 6 of each of the three years following the year of the grant, while the 2017 time-based RSUs vest in equal installments on January 19 of each of the three years following the year of the grant. The time-based RSUs may also vest upon death or disability, upon a change in control or upon a "qualified retirement" (as defined in the RSU agreement). The retiree is required to sign a non-solicitation agreement as a condition to vesting.

In addition to the time-based RSUs referenced in the preceding paragraph, the Compensation Committee granted one-year performance-based RSUs with respect to 18,988 shares of common stock in the first quarter of 2018, and 27,570 shares of common stock in the first quarter of 2017. These performance-based RSUs are earned based on satisfaction of performance targets for the fiscal years ended December 31, 2018 and December 31, 2017, respectively, and then fully vest on a specified date in the third calendar year following the year of the initial grant.

The Compensation Committee also granted three-year performance-based RSUs with respect to 16,108 shares and 9,032 shares of common stock in the first quarter of 2018 and 2017, respectively. These performance-based RSUs will be earned based upon satisfaction of performance targets for the three-year performance period ended December 31, 2020, and December 31, 2019. These performance-based RSUs will vest in 2021 and 2020, respectively, after measurement of performance in relation to the performance targets.

The one-year and three-year performance-based RSUs vest to the extent that they are earned upon death or disability or upon a "qualified retirement." Upon a change in control, performance-based RSUs shall become vested at 100% of target if the RSU obligations are not assumed by the successor company. If the successor company does assume the RSU obligations, the 2018 and 2017 performance-based RSUs will vest at 100% of target upon a "Termination of Service" within the period beginning six months prior to a change in control and ending 24 months after a change in control.

All of Heartland's RSUs will be settled in common stock upon vesting and are not entitled to dividends until vested.

The Compensation Committee may grant RSUs under the Plan to directors as part of their compensation, to new management level employees at the commencement of employment, and to other employees as incentives. During the years ended December 31, 2018, 2017 and 2016, 36,462, 17,106 and 24,153 RSUs, respectively, were granted to directors and new employees.

A summary of the status of RSUs as of December 31, 2018, 2017 and 2016, and changes during the years ended December 31, 2018, 2017, and 2016, follows:

	2018		2017		2016	
	Shares	Weighted-Average Grant Date Fair Value	Shares	Weighted-Average Grant Date Fair Value	Shares	Weighted-Average Grant Date Fair Value
Outstanding at January 1	301,578	\$ 34.74	346,817	\$ 27.61	353,195	\$ 25.53
Granted	123,711	55.13	109,373	47.22	143,721	29.75
Vested	(127,744)	32.73	(137,394)	26.66	(126,614)	23.83
Forfeited	(30,550)	45.69	(17,218)	34.02	(23,485)	29.80
Outstanding at December 31	266,995	\$ 43.89	301,578	\$ 34.74	346,817	\$ 27.61

Total compensation costs recorded for RSUs were \$4.4 million, \$3.2 million and \$2.6 million, for 2018, 2017 and 2016, respectively. As of December 31, 2018, there were \$4.2 million of total unrecognized compensation costs related to the Plan for RSUs which are expected to be recognized through 2021.

Employee Stock Purchase Plan

Heartland maintains an employee stock purchase plan (the "ESPP"), which was adopted in May 2016 and replaced the 2006 ESPP, that permits all eligible employees to purchase shares of Heartland common stock at a price of not less than 95% of the fair market value (as determined by the Compensation Committee) on the determination date. Under ASC Topic 718, compensation expense related to the ESPP of \$91,000 was recorded in 2018, \$153,000 was recorded in 2017, and \$183,000 was recorded in 2016 because the price of the shares purchased was set at the beginning of the year for the purchases at the end of the year.

A maximum of 500,000 shares is available for purchase under the ESPP, and as of December 31, 2018, 444,852 shares remain available for purchase. Beginning in 2017, Heartland began making ESPP purchases as soon as practicable after the last day of the plan year. On January 4, 2019, 32,331 shares were purchased under the ESPP plan for the employee deferrals made during the plan year ended December 31, 2018. On January 2, 2018, 22,903 shares were purchased under the ESPP plan for employee deferrals

made during the plan year ended December 31, 2017. For the year ended December 31, 2016, 32,245 shares were purchased under the ESPP.

SEVENTEEN STOCKHOLDER RIGHTS PLAN

Heartland adopted an Amended and Restated Rights Agreement (the "Extended Rights Plan"), dated as of January 17, 2012, which became effective upon approval by the stockholders on May 16, 2012. The primary purpose of the Extended Rights Plan was to extend the term of the Rights Agreement dated as of June 7, 2002, for an additional ten years and to expand the definition of beneficial owners to include certain forms of indirect ownership. Under the terms of the Extended Rights Plan, a preferred share purchase right (a "Right") is automatically issued with each outstanding share of Heartland common stock and, unless redeemed or unless there is a Distribution Date, as defined below, the Rights trade with the shares of common stock until expiration of the Plan on January 17, 2022. Each Right entitles the holder to purchase from Heartland one-thousandth of a share of Series A Junior Participating Preferred Stock, \$1.00 value (the "Series A Preferred Stock"), at a price of \$70.00 per one one-thousandth of a share of Preferred Stock, subject to adjustment (the "Purchase Price"). The Rights are not currently exercisable, and will not become exercisable until a Distribution Date.

The Series A Preferred Stock has a preferential quarterly dividend rate equal to the greater of \$1.00 per share or 1,000 times the dividend declared on one share of common stock, a preference over common stock in liquidation equal to the greater of \$1,000 per share or 1,000 times the payment made on one share of common stock, 1,000 votes per share voting together with the common stock, customary anti-dilution provisions and other rights that approximate the rights of one share of common stock.

The Rights separate from the common stock and become exercisable only on the tenth day (the "Distribution Date") following the earlier of (i) a public announcement that a person or group of affiliated or associated persons (subject to certain exclusions, "Acquiring Persons") has commenced an offer to acquire "beneficial ownership" of 15% or more of Heartland's outstanding common stock, or (ii) actual acquisition of this level of beneficial ownership.

If any person or group of affiliated or associated persons becomes an Acquiring Person, each holder of a Right, other than Rights that were or are beneficially owned by the Acquiring Person (which will thereafter be void), will have the right to receive upon exercise that number of shares of common stock having a market value of two times the Purchase Price.

In 2002, when the Rights Plan was originally created, Heartland designated 16,000 shares, par value \$1.00 per share, of Series A Preferred Stock. There are no shares of Series A Preferred issued and outstanding, and Heartland does not anticipate issuing any shares of such, except as may be required under the Extended Rights Plan.

EIGHTEEN CAPITAL ISSUANCES

Common Stock

For a description of the issuance of shares of Heartland common stock in connection with acquisitions, see Note 2, "Acquisitions," of the consolidated financial statements. For a description of the issuance of shares of Heartland common stock in connection with the 2012 Long-Term Incentive Plan and the 2016 ESPP, see Note 16, "Stock-Based Compensation."

Series D Preferred Stock

In connection with the acquisition of CIC Bancshares, Inc. on February 5, 2016, Heartland issued 3,000 shares of 7.0% Senior Non-Cumulative Perpetual Convertible Stock, Series D (the "Series D Preferred Stock") in exchange for 3,000 outstanding shares of 7.0% Senior Non-Cumulative Perpetual Convertible Stock, Series B, of CIC Bancshares, Inc. During 2016, 2017 and 2018, all issued and outstanding shares of Series D Preferred Stock were converted into Heartland common stock. As a result, no shares of the Series D Preferred Stock remain outstanding.

Shelf Registration

Heartland filed a universal shelf registration with the SEC to register debt or equity securities on July 29, 2016 that expires in July 2019. This registration statement, which was effective immediately, provides Heartland the ability to raise capital, subject to market conditions and SEC rules and limitations, if Heartland's board of directors decides to do so. This registration statement permits Heartland, from time to time, in one more public offerings, to offer debt securities, subordinated notes, common stock, preferred stock, rights or any combination of these securities.

Under this registration statement, on November 2, 2016, Heartland commenced a public offering of 1,379,690 shares of common stock at \$36.24 per share, and the offering closed on November 8, 2016. The offering resulted in net proceeds of approximately

\$49.7 million after deducting estimated offering expenses payable by Heartland. All of the shares of common stock included in the offering are primary shares. Heartland used the net proceeds from this offering for general corporate purposes, which may include, among other things, working capital, debt repayment or financing potential acquisitions.

NINETEEN

REGULATORY CAPITAL REQUIREMENTS AND RESTRICTIONS ON SUBSIDIARY DIVIDENDS

The Heartland banks are subject to various regulatory capital requirements administered by the federal banking agencies. Failure to meet minimum capital requirements can initiate certain mandatory, and possibly additional discretionary, actions by regulators that, if undertaken, could have a direct material effect on the Heartland banks' financial statements. The regulations prescribe specific capital adequacy guidelines that involve quantitative measures of a bank's assets, liabilities and certain off balance sheet items as calculated under regulatory accounting practices. Capital classification is also subject to qualitative judgments by the regulators about components, risk weightings and other factors.

Quantitative measures established by regulation to ensure capital adequacy require the Heartland banks to maintain minimum amounts and ratios (set forth in the table below) of total and Tier 1 capital (as defined in the regulations) to risk-weighted assets (as defined), and of Tier 1 capital (as defined) to average assets (as defined).

Under the Basel III Capital Rules, which were effective January 1, 2015, bank holding companies became subject to a common equity Tier 1 capital (as defined) to risk-weighted assets (as defined) ratio. The requirements to be categorized as well-capitalized under the Tier 1 leverage capital ratio is 4% for all banks. The minimum requirement to be well-capitalized for the Tier 1 risk-based capital ratio is 8%. The total risk-based capital ratio minimum requirement to be well-capitalized remained is 10%. Management believes, as of December 31, 2018 and 2017, that the Heartland banks met all capital adequacy requirements to which they were subject.

As of December 31, 2018 and 2017, the FDIC categorized each of the Heartland banks as well capitalized under the regulatory framework for prompt corrective action. To be categorized as well capitalized, the Heartland banks must maintain minimum total risk-based, Tier 1 risk-based, Tier 1 common equity and Tier 1 leverage ratios as set forth in the following table. There are no conditions or events since December 31, 2018 that management believes have changed each institution's category.

The Heartland banks' actual capital amounts and ratios are also presented in the tables below, in thousands:

	Actual		For Capital Adequacy Purposes		To Be Well Capitalized Under Prompt Corrective Action Provisions	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
As of December 31, 2018						
Total Capital (to Risk-Weighted Assets)						
Consolidated	\$ 1,200,947	13.72%	\$ 700,490	8.00%	N/A	
Dubuque Bank and Trust Company	165,687	14.10	93,975	8.00	\$ 117,469	10.00%
Illinois Bank & Trust	74,657	13.02	45,884	8.00	57,355	10.00
Wisconsin Bank & Trust	115,318	13.90	66,351	8.00	82,939	10.00
New Mexico Bank & Trust	150,261	12.92	93,063	8.00	116,328	10.00
Arizona Bank & Trust	63,606	11.90	42,766	8.00	53,458	10.00
Rocky Mountain Bank	51,982	14.26	29,160	8.00	36,449	10.00
Citywide Banks	235,691	13.46	140,117	8.00	175,146	10.00
Minnesota Bank & Trust	69,002	12.99	42,493	8.00	53,117	10.00
Morrill & Janes Bank and Trust Company	72,520	16.14	35,937	8.00	44,922	10.00
Premier Valley Bank	85,710	13.71	50,017	8.00	62,521	10.00
First Bank & Trust	102,795	13.48	61,004	8.00	76,255	10.00

	Actual		For Capital Adequacy Purposes		To Be Well Capitalized Under Prompt Corrective Action Provisions	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
As of December 31, 2018						
Tier 1 Capital (to Risk-Weighted Assets)						
Consolidated	\$ 1,064,669	12.16%	\$ 525,368	6.00%	N/A	
Dubuque Bank and Trust Company	155,391	13.23	70,482	6.00	\$ 93,975	8.00%
Illinois Bank & Trust	70,470	12.29	34,413	6.00	45,884	8.00
Wisconsin Bank & Trust	108,193	13.04	49,763	6.00	66,351	8.00
New Mexico Bank & Trust	141,161	12.13	69,797	6.00	93,063	8.00
Arizona Bank & Trust	59,993	11.22	32,075	6.00	42,766	8.00
Rocky Mountain Bank	48,428	13.29	21,870	6.00	29,160	8.00
Citywide Banks	226,645	12.94	105,088	6.00	140,117	8.00
Minnesota Bank & Trust	63,633	11.98	31,870	6.00	42,493	8.00
Morrill & Janes Bank and Trust Company	67,975	15.13	26,953	6.00	35,937	8.00
Premier Valley Bank	82,321	13.17	37,513	6.00	50,017	8.00
First Bank & Trust	100,884	13.23	45,753	6.00	61,004	8.00
Common Equity Tier 1 (to Risk-Weighted Assets)						
Consolidated	\$ 933,755	10.66%	\$ 394,026	4.50%	N/A	
Dubuque Bank and Trust Company	155,391	13.23	52,861	4.50	\$ 76,355	6.50%
Illinois Bank & Trust	70,470	12.29	25,810	4.50	37,281	6.50
Wisconsin Bank & Trust	108,193	13.04	37,323	4.50	53,910	6.50
New Mexico Bank & Trust	141,161	12.13	52,348	4.50	75,613	6.50
Arizona Bank & Trust	59,993	11.22	24,056	4.50	34,748	6.50
Rocky Mountain Bank	48,428	13.29	16,402	4.50	23,692	6.50
Citywide Banks	226,645	12.94	78,816	4.50	113,845	6.50
Minnesota Bank & Trust	63,633	11.98	23,903	4.50	34,526	6.50
Morrill & Janes Bank and Trust Company	67,975	15.13	20,215	4.50	29,199	6.50
Premier Valley Bank	82,321	13.17	28,134	4.50	40,639	6.50
First Bank & Trust	100,884	13.23	34,315	4.50	49,566	6.50
Tier 1 Capital (to Average Assets)						
Consolidated	\$ 1,064,669	9.73%	\$ 437,858	4.00%	N/A	
Dubuque Bank and Trust Company	155,391	9.97	62,317	4.00	\$ 77,897	5.00%
Illinois Bank & Trust	70,470	8.56	32,941	4.00	41,177	5.00
Wisconsin Bank & Trust	108,193	10.47	41,317	4.00	51,647	5.00
New Mexico Bank & Trust	141,161	9.58	58,958	4.00	73,697	5.00
Arizona Bank & Trust	59,993	9.20	26,089	4.00	32,611	5.00
Rocky Mountain Bank	48,428	9.82	19,730	4.00	24,662	5.00
Citywide Banks	226,645	10.53	86,129	4.00	107,662	5.00
Minnesota Bank & Trust	63,633	10.00	25,445	4.00	31,806	5.00
Morrill & Janes Bank and Trust Company	67,975	11.31	24,041	4.00	30,052	5.00
Premier Valley Bank	82,321	10.53	31,285	4.00	39,106	5.00
First Bank & Trust	100,884	10.13	39,846	4.00	49,807	5.00

	Actual		For Capital Adequacy Purposes		To Be Well Capitalized Under Prompt Corrective Action Provisions	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
As of December 31, 2017						
Total Capital (to Risk-Weighted Assets)						
Consolidated	\$ 1,010,116	13.45%	\$ 600,924	8.00%	N/A	
Dubuque Bank and Trust Company	156,544	13.63	91,878	8.00	\$ 114,848	10.00%
Illinois Bank & Trust	71,410	12.62	45,265	8.00	56,582	10.00
Wisconsin Bank & Trust	113,045	14.57	62,057	8.00	77,572	10.00
New Mexico Bank & Trust	133,274	11.42	93,401	8.00	116,751	10.00
Arizona Bank & Trust	61,550	13.39	36,773	8.00	45,966	10.00
Rocky Mountain Bank	50,729	13.78	29,461	8.00	36,826	10.00
Citywide Banks	226,493	13.63	132,975	8.00	166,219	10.00
Minnesota Bank & Trust	23,760	13.76	13,811	8.00	17,264	10.00
Morrill & Janes Bank and Trust Company	72,471	13.42	43,206	8.00	54,007	10.00
Premier Valley Bank	83,772	12.95	51,743	8.00	64,679	10.00
Tier 1 Capital (to Risk-Weighted Assets)						
Consolidated	\$ 879,133	11.70%	\$ 450,693	6.00%	N/A	
Dubuque Bank and Trust Company	148,080	12.89	68,909	6.00	\$ 91,878	8.00%
Illinois Bank & Trust	66,547	11.76	33,949	6.00	45,265	8.00
Wisconsin Bank & Trust	106,236	13.70	46,543	6.00	62,057	8.00
New Mexico Bank & Trust	123,519	10.58	70,050	6.00	93,401	8.00
Arizona Bank & Trust	56,870	12.37	27,579	6.00	36,773	8.00
Rocky Mountain Bank	47,660	12.94	22,096	6.00	29,461	8.00
Citywide Banks	221,239	13.31	99,731	6.00	132,975	8.00
Minnesota Bank & Trust	22,554	13.06	10,358	6.00	13,811	8.00
Morrill & Janes Bank and Trust Company	67,328	12.47	32,404	6.00	43,206	8.00
Premier Valley Bank	81,213	12.56	38,808	6.00	51,743	8.00
Common Equity Tier 1 (to Risk Weighted Assets)						
Consolidated	\$ 756,309	10.07%	\$ 338,019	4.50%	N/A	
Dubuque Bank and Trust Company	148,080	12.89	51,681	4.50	\$ 74,651	6.50%
Illinois Bank & Trust	66,547	11.76	25,462	4.50	36,778	6.50
Wisconsin Bank & Trust	106,236	13.70	34,907	4.50	50,422	6.50
New Mexico Bank & Trust	123,519	10.58	52,538	4.50	75,888	6.50
Arizona Bank & Trust	56,870	12.37	20,685	4.50	29,878	6.50
Rocky Mountain Bank	47,660	12.94	16,572	4.50	23,937	6.50
Citywide Banks	221,239	13.31	74,799	4.50	108,042	6.50
Minnesota Bank & Trust	22,554	13.06	7,769	4.50	11,222	6.50
Morrill & Janes Bank and Trust Company	67,328	12.47	24,303	4.50	35,104	6.50
Premier Valley Bank	81,213	12.56	29,106	4.50	42,042	6.50
Tier 1 Capital (to Average Assets)						
Consolidated	\$ 879,133	9.20%	\$ 382,089	4.00%	N/A	
Dubuque Bank and Trust Company	148,080	10.05	58,932	4.00	\$ 73,666	5.00%
Illinois Bank & Trust	66,547	8.39	31,728	4.00	39,660	5.00
Wisconsin Bank & Trust	106,236	10.53	40,373	4.00	50,466	5.00
New Mexico Bank & Trust	123,519	8.54	57,834	4.00	72,292	5.00

	Actual		For Capital Adequacy Purposes		To Be Well Capitalized Under Prompt Corrective Action Provisions	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
December 31, 2017						
Tier 1 Capital (to Average Assets)						
Arizona Bank & Trust	\$ 56,870	9.94 %	\$ 22,890	4.00 %	\$ 28,613	5.00%
Rocky Mountain Bank	47,660	9.82	19,418	4.00	24,272	5.00
Citywide Banks	221,239	10.03	88,240	4.00	110,300	5.00
Minnesota Bank & Trust	22,554	10.77	8,379	4.00	10,473	5.00
Morrill & Janes Bank and Trust Company	67,328	9.47	28,435	4.00	35,543	5.00
Premier Valley Bank	81,213	9.80	33,157	4.00	41,446	5.00

The ability of Heartland to pay dividends to its stockholders is dependent upon dividends paid by its subsidiaries. The Heartland banks are subject to certain statutory and regulatory restrictions on the amount they may pay in dividends. To maintain acceptable capital ratios for the Banks, certain portions of their retained earnings are not available for the payment of dividends. Retained earnings that could be available for the payment of dividends to Heartland totaled approximately \$486.5 million as of December 31, 2018, under the most restrictive minimum capital requirements. Retained earnings that could be available for the payment of dividends to Heartland totaled approximately \$311.3 million as of December 31, 2018, under the capital requirements to remain well capitalized.

TWENTY FAIR VALUE

Heartland utilizes fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures. Securities carried at fair value, which include available for sale, trading securities and equity securities with a readily determinable fair value, and derivatives are recorded in the consolidated balance sheets at fair value on a recurring basis. Additionally, from time to time, Heartland may be required to record at fair value other assets on a nonrecurring basis such as loans held for sale, loans held to maturity and certain other assets including, but not limited to, mortgage servicing rights, commercial servicing rights and other real estate owned. These nonrecurring fair value adjustments typically involve application of lower of cost or fair value accounting or write-downs of individual assets.

Fair Value Hierarchy

Under ASC 820, assets and liabilities are grouped at fair value in three levels, based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value. These levels are:

Level 1 — Valuation is based upon quoted prices for identical instruments in active markets.

Level 2 — Valuation is based upon quoted prices for similar instruments in active markets, or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market.

Level 3 — Valuation is generated from model-based techniques that use at least one significant assumption not observable in the market. These unobservable assumptions reflect estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques.

The following is a description of valuation methodologies used for assets and liabilities recorded at fair value on a recurring or non-recurring basis.

Assets

Securities Available for Sale and Held to Maturity

Securities available for sale are recorded at fair value on a recurring basis. Securities held to maturity are generally recorded at cost and are only recorded at fair value to the extent a decline in fair value is determined to be other-than-temporary. Fair value measurement is based upon quoted prices, if available. If quoted prices are not available, fair values are measured using independent pricing models or other model-based valuation techniques such as the present value of future cash flows, adjusted for the security's credit rating, prepayment assumptions and other factors such as credit loss assumptions. Level 1 securities include those traded on an active exchange, such as the New York Stock Exchange, as well as U.S. Treasury securities. Level 2 securities include U.S. government and agency securities, mortgage and asset-backed securities and private collateralized mortgage obligations, municipal bonds, equity securities and corporate debt securities. On a quarterly basis, a secondary independent pricing service is used for the securities portfolio to validate the pricing from Heartland's primary pricing service.

Equity Securities with a Readily Determinable Fair Value

Equity securities with a readily determinable fair value generally include Community Reinvestment Act mutual funds and are classified as Level 2 due to the infrequent trading of these securities. The fair value is based on the price per share.

Loans Held for Sale

Loans held for sale are carried at the lower of cost or fair value on an aggregate basis. The fair value of loans held for sale is based on what secondary markets are currently offering for portfolios with similar characteristics. As such, Heartland classifies loans held for sale subjected to nonrecurring fair value adjustments as Level 2.

Prior to December 31, 2018, Heartland entered into an agreement with a third-party to sell the loan portfolios of its consumer finance subsidiaries. The loan portfolios were classified as held for sale and recorded at fair value at December 31, 2018. Heartland classified these loans as nonrecurring Level 3 in the fair value hierarchy because the negotiated sales price was unobservable.

Loans Held to Maturity

Heartland does not record loans held to maturity at fair value on a recurring basis. However, from time to time, a loan is considered impaired and an allowance for loan losses is established. Loans for which it is probable that payment of interest and principal will not be made in accordance with the contractual terms of the loan agreement are considered impaired. Once a loan is identified as individually impaired, management measures impairment in accordance with ASC 310. The fair value of impaired loans is measured using one of the following impairment methods: 1) the present value of expected future cash flows discounted at the loan's effective interest rate or 2) the observable market price of the loan or 3) the fair value of the collateral if the loan is collateral dependent. In accordance with ASC 820, impaired loans measured at fair value are classified as nonrecurring Level 3 in the fair value hierarchy.

Premises, Furniture and Equipment Held for Sale

Heartland values premises, furniture and equipment held for sale based on third-party appraisals less estimated disposal costs. Heartland considers third party appraisals, as well as independent fair value assessments from Realtors or persons involved in selling bank premises, furniture and equipment, in determining the fair value of particular properties. Accordingly, the valuation of premises, furniture and equipment held for sale is subject to significant external and internal judgment. Heartland periodically reviews premises, furniture and equipment held for sale to determine if the fair value of the property, less disposal costs, has declined below its recorded book value and records any adjustments accordingly. Premises, furniture and equipment held for sale are classified as nonrecurring Level 3 in the fair value hierarchy.

Mortgage Servicing Rights

Mortgage servicing rights assets represent the value associated with servicing residential real estate loans that have been sold to outside investors with servicing retained. The fair value for servicing assets is determined through discounted cash flow analysis and utilizes discount rates, prepayment speeds and delinquency rate assumptions as inputs. All of these assumptions require a significant degree of management estimation and judgment. Mortgage servicing rights are subject to impairment testing. The carrying values of these rights are reviewed quarterly for impairment based upon the calculation of fair value as performed by an outside third party. For purposes of measuring impairment, the rights are stratified into certain risk characteristics including note type and note term. If the valuation model reflects a value less than the carrying value, mortgage servicing rights are adjusted to fair value through a valuation allowance. Heartland classifies mortgage servicing rights as nonrecurring with Level 3 measurement inputs.

Commercial Servicing Rights

Commercial servicing rights assets represent the value associated with servicing commercial loans guaranteed by the Small Business Administration and United States Department of Agriculture that have been sold with servicing retained by Heartland. Heartland uses the amortization method (i.e., the lower of amortized cost or estimated fair value measured on a nonrecurring basis), not fair value measurement accounting, to determine the carrying value of its commercial servicing rights. The fair value for servicing assets is determined through market prices for comparable servicing contracts, when available, or through a valuation model that calculates the present value of estimated future net servicing income. Inputs utilized include discount rates, prepayment speeds and delinquency rate assumptions as inputs. All of these assumptions require a significant degree of management estimation and judgment. Commercial servicing rights are subject to impairment testing, and the carrying values of these rights are reviewed quarterly for impairment based upon the calculation of fair value as performed by an outside third party. If the valuation model reflects a fair value less than the carrying value, commercial servicing rights are adjusted to fair value through a valuation allowance. Heartland classifies commercial servicing rights as nonrecurring with Level 3 measurement inputs.

Derivative Financial Instruments

Heartland's current interest rate risk strategy includes interest rate swaps. The valuation of these instruments is determined using widely accepted valuation techniques including discounted cash flow analysis on the expected cash flows of each derivative. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves and implied volatilities. To comply with the provisions of ASC 820, Heartland incorporates credit valuation adjustments to appropriately reflect both its own nonperformance risk and the respective counterparty's nonperformance risk in the fair value measurements. In adjusting the fair value of its derivative contracts for the effect of nonperformance risk, Heartland has considered the impact of netting any applicable credit enhancements, such as collateral postings, thresholds, mutual puts, and guarantees.

Although Heartland has determined that the majority of the inputs used to value its derivatives fall within Level 2 of the fair value hierarchy, the credit valuation adjustments associated with its derivatives utilize Level 3 inputs, such as estimates of current credit spreads to evaluate the likelihood of default by itself and its counterparties. However, as of December 31, 2018, and December 31, 2017, Heartland has assessed the significance of the impact of the credit valuation adjustments on the overall valuation of its derivative positions and has determined that the credit valuation adjustments are not significant to the overall valuation of its derivatives. As a result, Heartland has determined that its derivative valuations in their entirety are classified in Level 2 of the fair value hierarchy.

Interest Rate Lock Commitments

Heartland uses an internal valuation model that relies on internally developed inputs to estimate the fair value of its interest rate lock commitments which is based on unobservable inputs that reflect management's assumptions and specific information about each borrower. Interest rate lock commitments are classified in Level 3 of the fair value hierarchy.

Forward Commitments

The fair value of forward commitments are estimated using an internal valuation model, which includes current trade pricing for similar financial instruments in active markets that Heartland has the ability to access and are classified in Level 2 of the fair value hierarchy.

Other Real Estate Owned

Other real estate owned ("OREO") represents property acquired through foreclosures and settlements of loans. Property acquired is carried at the fair value of the property at the time of acquisition (representing the property's cost basis), plus any acquisition costs, or the estimated fair value of the property, less disposal costs. Heartland considers third party appraisals, as well as independent fair value assessments from realtors or persons involved in selling OREO, in determining the fair value of particular properties. Accordingly, the valuation of OREO is subject to significant external and internal judgment. Heartland periodically reviews OREO to determine if the fair value of the property, less disposal costs, has declined below its recorded book value and records any adjustments accordingly. OREO is classified as nonrecurring Level 3 of the fair value hierarchy.

The table below presents Heartland's assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2018, and December 31, 2017, in thousands, aggregated by the level in the fair value hierarchy within which those measurements fall:

	Total Fair Value	Level 1	Level 2	Level 3
December 31, 2018				
Assets				
Securities available for sale				
U.S. government corporations and agencies	\$ 31,951	\$ 25,414	\$ 6,537	\$ —
Mortgage and asset-backed securities	2,026,698	—	2,026,698	—
Obligations of states and political subdivisions	374,974	—	374,974	—
Equity securities with a readily determinable fair value	17,086	—	17,086	—
Derivative financial instruments ⁽¹⁾	6,539	—	6,539	—
Interest rate lock commitments	725	—	—	725
Forward commitments	—	—	—	—
Total assets at fair value	<u>\$ 2,457,973</u>	<u>\$ 25,414</u>	<u>\$ 2,431,834</u>	<u>\$ 725</u>
Liabilities				
Derivative financial instruments ⁽²⁾	\$ 6,044	\$ —	\$ 6,044	\$ —
Forward commitments	399	—	399	—
Total liabilities at fair value	<u>\$ 6,443</u>	<u>\$ —</u>	<u>\$ 6,443</u>	<u>\$ —</u>
December 31, 2017				
Assets				
Securities available for sale				
U.S. government corporations and agencies	\$ 5,328	\$ 3,484	\$ 1,844	\$ —
Mortgage-backed securities	1,753,736	—	1,753,736	—
Obligations of states and political subdivisions	441,015	—	441,015	—
Equity securities	16,674	—	16,674	—
Derivative financial instruments ⁽¹⁾	3,933	—	3,933	—
Interest rate lock commitments	1,738	—	—	1,738
Forward commitments	80	—	80	—
Total assets at fair value	<u>\$ 2,222,504</u>	<u>\$ 3,484</u>	<u>\$ 2,217,282</u>	<u>\$ 1,738</u>
Liabilities				
Derivative financial instruments ⁽²⁾	\$ 5,167	\$ —	\$ 5,167	\$ —
Forward commitments	232	—	232	—
Total liabilities at fair value	<u>\$ 5,399</u>	<u>\$ —</u>	<u>\$ 5,399</u>	<u>\$ —</u>

(1) Includes embedded derivatives, back-to-back loan swaps, fair value hedges, free standing derivative instruments and cash flow hedges.

(2) Includes cash flow hedges, fair value hedges, back-to-back loan swaps, embedded derivatives and free standing derivative instruments.

The tables below present Heartland's assets that are measured at fair value on a nonrecurring basis, in thousands:

Fair Value Measurements at December 31, 2018					
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	(Gains)/ Losses
Collateral dependent impaired loans:					
Commercial	\$ 12,932	\$ —	\$ —	\$ 12,932	\$ 660
Commercial real estate	405	—	—	405	72
Agricultural and agricultural real estate	11,070	—	—	11,070	575
Residential real estate	478	—	—	478	—
Consumer	624	—	—	624	—
Total collateral dependent impaired loans	\$ 25,509	\$ —	\$ —	\$ 25,509	\$ 1,307
Loans held for sale	\$ 119,801	\$ —	\$ 52,577	\$ 67,224	\$ (1,870)
Other real estate owned	\$ 6,153	\$ —	\$ —	\$ 6,153	\$ 2,647
Premises, furniture and equipment held for sale	\$ 7,258	\$ —	\$ —	\$ 7,258	\$ 59
Servicing rights	\$ 7,143	\$ —	\$ —	\$ 7,143	\$ 58
Fair Value Measurements at December 31, 2017					
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	(Gains)/ Losses
Collateral dependent impaired loans:					
Commercial	\$ 3,212	\$ —	\$ —	\$ 3,212	\$ 1,119
Commercial real estate	9,480	—	—	9,480	322
Agricultural and agricultural real estate	8,406	—	—	8,406	2,028
Residential real estate	1,137	—	—	1,137	—
Consumer	1,234	—	—	1,234	—
Total collateral dependent impaired loans	\$ 23,469	\$ —	\$ —	\$ 23,469	\$ 3,469
Loans held for sale	\$ 44,560	\$ —	\$ 44,560	\$ —	\$ 190
Other real estate owned	\$ 10,777	\$ —	\$ —	\$ 10,777	\$ 737
Premises, furniture and equipment held for sale	\$ 1,977	\$ —	\$ —	\$ 1,977	\$ 192
Servicing rights	\$ 291	\$ —	\$ —	\$ 291	\$ (21)

Heartland entered into an agreement to sell the loan portfolios of its consumer finance subsidiaries during the fourth quarter of 2018, which were recorded at fair value at December 31, 2018. The fair value of the portfolios was \$67.2 million, and Heartland recorded a benefit to provision for loan losses of \$953,000 in 2018 associated with the transaction.

The following tables present additional quantitative information about assets measured at fair value on a recurring and nonrecurring basis and for which Heartland has utilized Level 3 inputs to determine fair value, in thousands:

	Fair Value at 12/31/18	Valuation Technique	Unobservable Input	Range (Weighted Average)
Loans held for sale	\$ 67,224	Discounted cash flows	Sales contract	(1)
Interest rate lock commitments	725	Discounted cash flows	Closing ratio	0 - 99% (91%) ⁽²⁾
Premises, furniture and equipment held for sale	7,258	Modified appraised value	Third party appraisal	(3)
			Appraisal discount	0-10% ⁽⁵⁾
Other real estate owned	6,153	Modified appraised value	Third party appraisal	(3)
			Appraisal discounts	0-10% ⁽⁵⁾
Servicing rights	7,143	Discounted cash flows	Third party valuation	(4)
Collateral dependent impaired loans:				
Commercial	12,932	Modified appraised value	Third party appraisal	(3)
			Appraisal discount	0-8% ⁽⁵⁾
Commercial real estate	405	Modified appraised value	Third party appraisal	(3)
			Appraisal discount	0-19% ⁽⁵⁾
Agricultural and agricultural real estate	11,070	Modified appraised value	Third party appraisal	(3)
			Appraisal discount	0-24% ⁽⁵⁾
Residential real estate	478	Modified appraised value	Third party appraisal	(3)
			Appraisal discount	0-24% ⁽⁵⁾
Consumer	624	Modified appraised value	Third party valuation	(3)
			Valuation discount	0-14% ⁽⁵⁾

(1) The significant unobservable input related to the loans held for sale was the third party sales contract Heartland entered into prior to December 31, 2018. The sale of these consumer loans closed on January 11, 2019.

(2) The significant unobservable input used in the fair value measurement is the closing ratio, which represents the percentage of loans currently in a lock position which management estimates will ultimately close. The closing ratio calculation takes into consideration historical data and loan-level data.

(3) Third party appraisals are obtained and updated at least annually to establish the value of the underlying asset, but the disclosure of the unobservable inputs used by the appraisers would not be meaningful because the range will vary widely from appraisal to appraisal.

(4) The significant unobservable input used in the fair value measurement are the value indices, which are weighted-average spreads to LIBOR based on maturity groups.

(5) Discounts applied to the appraised values primarily include estimated sales costs, but also consider the age of the appraisal, changes in local market conditions and changes in the current condition of the collateral.

	Fair Value at 12/31/17	Valuation Technique	Unobservable Input	Range (Weighted Average)
Interest rate lock commitments	\$ 1,738	Discounted cash flows	Closing ratio	0 - 99% (89%) ⁽¹⁾
Premises, furniture and equipment held for sale	1,977	Modified appraised value	Third party appraisal	⁽²⁾
			Appraisal discount	0-10% ⁽⁴⁾
Other real estate owned	10,777	Modified appraised value	Third party appraisal	⁽²⁾
			Appraisal discounts	0-10%
Servicing rights	291	Discounted cash flows	Third party valuation	⁽³⁾
Collateral dependent impaired loans:				
Commercial	3,212	Modified appraised value	Third party appraisal	⁽²⁾
			Appraisal discount	0-15% ⁽⁴⁾
Commercial real estate	9,480	Modified appraised value	Third party appraisal	⁽²⁾
			Appraisal discount	0-12% ⁽⁴⁾
Agricultural and agricultural real estate	8,406	Modified appraised value	Third party appraisal	⁽²⁾
			Appraisal discount	0-10% ⁽⁴⁾
Residential real estate	1,137	Modified appraised value	Third party appraisal	⁽²⁾
			Appraisal discount	0-12% ⁽⁴⁾
Consumer	1,234	Modified appraised value	Third party valuation	⁽²⁾
			Valuation discount	0-12% ⁽⁴⁾

(1) The significant unobservable input used in the fair value measurement is the closing ratio, which represents the percentage of loans currently in a lock position that management estimates will ultimately close. The closing ratio calculation takes into consideration historical data and loan-level data.

(2) Third party appraisals are obtained and updated at least annually to establish the value of the underlying asset, but the disclosure of the unobservable inputs used by the appraisers would not be meaningful because the range will vary widely from appraisal to appraisal.

(3) The significant unobservable input used in the fair value measurement are the value indices, which are weighted-average spreads to LIBOR based on maturity groups.

(4) Discounts applied to the appraised values primarily include estimated sales costs, but also consider the age of the appraisal, changes in local market conditions and changes in the current condition of the collateral.

The changes in fair value of the interest rate lock commitments, which are Level 3 financial instruments and are measured on a recurring basis, are summarized in the following table, in thousands:

	For the Years Ended	
	December 31, 2018	December 31, 2017
Balance at January 1,	\$ 1,738	\$ 2,790
Acquired interest rate lock commitments	1,383	—
Total gains (losses), net, included in earnings	(3,269)	(1,479)
Issuances	2,962	1,875
Settlements	(2,089)	(1,448)
Balance at period end,	\$ 725	\$ 1,738

Gains included in net gains on sale of loans held for sale attributable to interest rate lock commitments held at December 31, 2018, and December 31, 2017, were \$725,000 and \$1.7 million, respectively.

The table below is a summary of the estimated fair value of Heartland's financial instruments (as defined by ASC 825) as of December 31, 2018, and December 31, 2017, in thousands. The carrying amounts in the following table are recorded in the consolidated balance sheets under the indicated captions. In accordance with ASC 825, the assets and liabilities that are not financial instruments are not included in the disclosure, including the value of the commercial and mortgage servicing rights, premises, furniture and equipment, premises, furniture and equipment held for sale, OREO, goodwill, other intangibles and other liabilities.

Heartland does not believe that the estimated information presented below is representative of the earnings power or value of Heartland. The following analysis, which is inherently limited in depicting fair value, also does not consider any value associated with either existing customer relationships or the ability of Heartland to create value through loan origination, obtaining deposits or fee generating activities. Many of the estimates presented below are based upon the use of highly subjective information and assumptions and, accordingly, the results may not be precise. Management believes that fair value estimates may not be comparable between financial institutions due to the wide range of permitted valuation techniques and numerous estimates which must be made. Furthermore, because the disclosed fair value amounts were estimated as of the balance sheet date, the amounts actually realized or paid upon maturity or settlement of the various financial instruments could be significantly different.

			Fair Value Measurements at December 31, 2018		
			Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	Carrying Amount	Estimated Fair Value			
Financial assets:					
Cash and cash equivalents	\$ 273,630	\$ 273,630	\$ 273,630	\$ —	\$ —
Time deposits in other financial institutions	4,672	4,672	4,672	—	—
Securities:					
Carried at fair value	2,450,709	2,450,709	25,414	2,425,295	—
Held to maturity	236,283	245,341	—	245,341	—
Other investments	28,396	28,396	—	28,396	—
Loans held for sale	119,801	119,801	—	52,577	67,224
Loans, net:					
Commercial	1,994,785	1,955,607	—	1,942,675	12,932
Commercial real estate	3,684,213	3,667,138	—	3,666,733	405
Agricultural and agricultural real estate	561,265	553,112	—	542,042	11,070
Residential real estate	670,473	654,596	—	654,118	478
Consumer	434,998	432,016	—	431,392	624
Total Loans, net	7,345,734	7,262,469	—	7,236,960	25,509
Cash surrender value on life insurance	162,892	162,892	—	162,892	—
Derivative financial instruments ⁽¹⁾	6,539	6,539	—	6,539	—
Interest rate lock commitments	725	725	—	—	725
Forward commitments	—	—	—	—	—
Financial liabilities:					
Deposits					
Demand deposits	3,264,737	3,264,737	—	3,264,737	—
Savings deposits	5,107,962	5,107,962	—	5,107,962	—
Time deposits	1,023,730	1,023,730	—	1,023,730	—
Deposits held for sale	106,409	100,241	—	—	100,241
Short term borrowings	227,010	227,010	—	227,010	—
Other borrowings	274,905	276,966	—	276,966	—
Derivative financial instruments ⁽²⁾	6,044	6,044	—	6,044	—
Forward commitments	399	399	—	399	—

(1) Includes embedded derivatives, back-to-back loan swaps, fair value hedges, free standing derivative instruments and cash flow hedges.

(2) Includes cash flow hedges, fair value hedges, back-to-back loan swaps, embedded derivatives and free standing derivative instruments.

	Fair Value Measurements at December 31, 2017				
	Carrying Amount	Estimated Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Financial assets:					
Cash and cash equivalents	\$ 196,003	\$ 196,003	\$ 196,003	\$ —	\$ —
Time deposits in other financial institutions	9,820	9,820	9,820	—	—
Securities:					
Carried at fair value	2,216,753	2,216,753	3,484	2,213,269	—
Held to maturity	253,550	265,494		265,494	
Other investments	22,563	22,563	—	22,563	—
Loans held for sale	44,560	44,560	—	44,560	—
Loans, net:					
Commercial	1,628,043	1,617,956	—	1,614,744	3,212
Commercial real estate	3,140,427	3,132,542	—	3,123,062	9,480
Agricultural and agricultural real estate	508,075	508,987	—	500,581	8,406
Residential real estate	620,939	614,667	—	613,530	1,137
Consumer	438,294	440,820	—	439,586	1,234
Total Loans, net	6,335,778	6,314,972	—	6,291,503	23,469
Cash surrender value on life insurance	142,818	142,818	—	142,818	—
Derivative financial instruments ⁽¹⁾	3,933	3,933	—	3,933	—
Interest rate lock commitments	1,738	1,738	—	—	1,738
Forward commitments	80	80	—	80	—
Financial liabilities:					
Deposits					
Demand deposits	2,983,128	2,983,128	—	2,983,128	—
Savings deposits	4,240,328	4,240,328	—	4,240,328	—
Time deposits	923,453	923,453	—	923,453	—
Short term borrowings	324,691	324,691	—	324,691	—
Other borrowings	285,011	285,609	—	285,609	—
Derivative financial instruments ⁽²⁾	5,167	5,167	—	5,167	—
Forward commitments	232	232	—	232	—

(1) Includes embedded derivatives, back-to-back loan swaps, fair value hedges, free standing derivative instruments and cash flow hedges.

(2) Includes cash flow hedges, fair value hedges, back-to-back loan swaps, embedded derivatives and free standing derivative instruments.

Cash and Cash Equivalents — The carrying amount is a reasonable estimate of fair value due to the short-term nature of these instruments.

Time Deposits in Other Financial Institutions — The carrying amount is a reasonable estimate of the fair value due to the short-term nature of these instruments.

Securities — For equity securities with a readily determinable fair value and debt securities either held to maturity, available for

sale or trading, fair value equals quoted market price if available. If a quoted market price is not available, fair value is estimated using quoted market prices for similar securities. For Level 3 securities, Heartland utilizes independent pricing provided by third party vendors or brokers.

Other Investments — Fair value measurement of other investments, which consists primarily of FHLB stock, are based on their redeemable value, which is at cost. The market for these securities is restricted to the issuer of the stock and subject to impairment evaluation.

Loans — Beginning in the first quarter of 2018, the fair value of loans were determined using an exit price methodology as prescribed by ASU 2016-01, which was effective on January 1, 2018. The exit price estimation of fair value is based on the present value of the expected cash flows. The projected cash flows are based on the contractual terms of the loans, adjusted for prepayments and a discount rate based on the relative risk of the cash flows. Other considerations include the loan type, remaining life of the loan and credit risk. In comparison, loan fair values as of December 31, 2017, were estimated based on an entrance price methodology, which discounts future cash flows using the current rates at which a similar loan would be made to borrowers with similar credit ratings and for the same remaining maturities. The fair value of non-impaired loans as of December 31, 2018, and December 31, 2017, are not comparable.

The fair value of impaired loans is measured using the fair value of the underlying collateral. The fair value of loans held for sale is estimated using quoted market prices or sales contracts.

Cash surrender value on life insurance — Life insurance policies are held on certain officers. The carrying value of these policies approximates fair value as it is based on the cash surrender value adjusted for other charges or amounts due that are probable at settlement. As such, Heartland classifies the estimated fair value of the cash surrender value on life insurance as Level 2.

Interest Rate Lock Commitments — The fair value of interest rate lock commitments is estimated using an internal valuation model, which includes grouping the interest rate lock commitments by interest rate and terms, applying an estimated closing ratio based on historical experience, and then multiplying by quoted investor prices determined to be reasonably applicable to the loan commitment groups based on interest rate, terms, and rate lock expiration dates of the loan commitment group.

Forward Commitments — The fair value of these instruments is estimated using an internal valuation model, which includes current trade pricing for similar financial instruments.

Derivative Financial Instruments — The fair value of all derivatives is estimated based on the amount that Heartland would pay or would be paid to terminate the contract or agreement, using current rates, and when appropriate, the current creditworthiness of the counter-party.

Interest Rate Lock Commitments — The fair value of interest rate lock commitments is estimated using an internal valuation model, which includes grouping the interest rate lock commitments by interest rate and terms, applying an estimated closing ratio based on historical experience, and then multiplying by quoted investor prices determined to be reasonably applicable to the loan commitment groups based on interest rate, terms, and rate lock expiration dates of the loan commitment group.

Forward Commitments — The fair value of these instruments is estimated using an internal valuation model, which includes current trade pricing for similar financial instruments.

Deposits — The fair value of demand deposits, savings accounts and certain money market deposits is the amount payable on demand at the reporting date. The fair value of fixed maturity certificates of deposit is estimated using the rates currently offered for deposits of similar remaining maturities. If the fair value of the fixed maturity certificates of deposit is calculated at less than the carrying amount, the carrying value of these deposits is reported as the fair value.

Deposits Held for Sale — Prior to December 31, 2018, Heartland entered into agreements with third parties to sell the deposits of five branch locations, which totaled \$106.4 million as of December 31, 2018. The estimated fair value in the table above is based on the carrying value of the deposits less the premium Heartland expects to receive in accordance with the sales contract when the transactions are expected to be completed in 2019.

Short-term and Other Borrowings — Rates currently available to Heartland for debt with similar terms and remaining maturities are used to estimate fair value of existing debt.

Commitments to Extend Credit, Unused Lines of Credit and Standby Letters of Credit — Based upon management's analysis of the off balance sheet financial instruments, there are no significant unrealized gains or losses associated with these financial

instruments based upon review of the fees currently charged to enter into similar agreements, taking into account the remaining terms of the agreements and the present creditworthiness of the counterparties.

TWENTY-ONE REVENUE

On January 1, 2018, Heartland adopted ASU 2014-09, "Revenue from Contracts with Customers" (Topic 606), and all subsequent ASUs that modified Topic 606. As stated in Note 1, the implementation of the standard did not have a material impact on the measurement or recognition of revenue; as such, a cumulative effect adjustment to opening retained earnings was not deemed necessary. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts were not adjusted and continue to be reported in accordance with Topic 605.

Topic 606 does not apply to revenue associated with financial instruments, including revenue from loans and securities. In addition, certain noninterest income streams such as fees associated with loan servicing income, bank owned life insurance, derivatives and certain credit card fees are also not in scope of the guidance. Topic 606 is applicable to noninterest revenue streams such as service charges and fees, trust fees, and brokerage and insurance commissions. However, the recognition of these revenue streams did not change significantly upon adoption of Topic 606. Substantially all of Heartland's revenue is generated from contracts with customers. Noninterest revenue streams in-scope of Topic 606 are discussed below.

Service Charges and Fees

Service charges and fees consist of revenue generated from deposit account related service charges and fees, overdraft fees, customer service fees, credit card fee income, debit card income and other service charges and fees.

Service charges on deposit accounts consist of account analysis fees (i.e., net fees earned on analyzed business and public checking accounts), monthly service fees, check orders and other deposit account related fees. Heartland's performance obligation for account analysis fees and monthly service fees is generally satisfied, and the related revenue recognized, over the period in which the service is provided. Check orders and other deposit account related fees, including overdraft fees, are largely transactional based, and therefore, the performance obligation is satisfied, and related revenue recognized, at a point in time. Payment for service charges on deposit accounts is primarily received immediately or in the following month through a direct charge to customers' accounts.

Customer service fees and other service charges include revenue from processing wire transfers, bill pay service, cashier's checks, and other services. Heartland's performance obligation for fees, exchange, and other service charges are largely satisfied, and related revenue recognized, when the services are rendered or upon completion. Payment is typically received immediately or in the following month.

Credit card fee income and debit card income are comprised of interchange fees, ATM fees, and merchant services income. Credit card fee income and debit card income are earned whenever the banks' debit and credit cards are processed through card payment networks such as Visa. ATM fees are primarily generated when a bank cardholder uses an ATM that is not owned by one of Heartland's banks or a non-bank cardholder uses Heartland-owned ATM. Merchant services income mainly represents fees charged to merchants to process their debit and credit card transactions, in addition to account management fees.

Trust Fees

Trust fees are primarily comprised of fees earned from the management and administration of trusts and other customer assets. Heartland's performance obligation is generally satisfied over time and the resulting fees are recognized monthly, based upon the average daily market value or month-end market value of the assets under management and the applicable fee rate. Payment is generally received a few days before or after month end through a direct charge to customers' accounts. Heartland does not earn performance-based incentives. Optional services such as real estate sales and tax return preparation services are also available to existing trust and asset management customers. Heartland's performance obligation for these transactional-based services is generally satisfied, and related revenue recognized, at a point in time (i.e., as incurred). Payment is received shortly after services are rendered.

Brokerage and Insurance Commissions

Brokerage commission primarily consist of commissions related to broker-dealer contracts. The contracts are between the customer and the broker-dealer, and Heartland satisfies its performance obligation and earns commission when the transactions are completed. The recognition of revenue is based on a defined fee schedule and does not require significant judgment. Payment is received shortly after services are rendered. Insurance commissions are related to commissions received directly from the insurance carrier. Heartland acts as an insurance agent between the customer and the insurance carrier. Heartland's performance obligations and

associated fee and commission income are defined with each insurance product with the insurance company. When insurance payments are received from customers, a portion of the payment is recognized as commission revenue.

The following presents noninterest income, segregated by revenue streams in-scope and out-of-scope of Topic 606, for the year ended December 31, 2018, 2017 and 2016, in thousands:

	For the Years Ended December 31,		
	2018	2017	2016
In-scope of Topic 606			
Service charges and fees			
Service charges and fees on deposit accounts	\$ 11,291	\$ 9,570	\$ 8,314
Overdraft fees	10,796	9,365	8,300
Customer service fees	327	288	208
Credit card fee income	11,893	7,968	4,866
Debit card income	14,396	11,984	9,873
Other service charges	3	8	29
Total service charges and fees	48,706	39,183	31,590
Trust fees	18,393	15,818	14,845
Brokerage and insurance commissions	4,513	4,033	3,869
Total noninterest income in-scope of Topic 606	\$ 71,612	\$ 59,034	\$ 50,304
Out-of-scope of Topic 606			
Loan servicing income	\$ 7,292	\$ 5,636	\$ 4,501
Securities gains, net	1,085	6,973	11,340
Unrealized gain on equity securities, net	212	—	—
Net gains on sale of loans held for sale	21,450	22,251	39,634
Valuation adjustment on servicing rights	(46)	21	(33)
Income on bank owned life insurance	2,793	2,772	2,275
Other noninterest income	4,762	5,335	5,580
Total noninterest income out-of-scope of Topic 606	37,548	42,988	63,297
Total noninterest income	\$ 109,160	\$ 102,022	\$ 113,601

Contract Balances

A contract asset balance occurs when an entity performs a service for a customer before the customer pays consideration (resulting in a contract receivable) or before payment is due (resulting in a contract asset). A contract liability balance is an entity's obligation to transfer a service to a customer for which the entity has already received payment (or payment is due) from the customer. Heartland's noninterest revenue streams are largely based on transactional activity, or standard month-end revenue accruals such as asset management fees based on month-end market values. Consideration is often received immediately or shortly after Heartland satisfies its performance obligation and revenue is recognized. Heartland does not typically enter into long-term revenue contracts with customers, and therefore, does not experience significant contract balances. As of December 31, 2018, 2017 and 2016, Heartland did not have any significant contract balances.

Contract Acquisition Costs

In connection with the adoption of Topic 606, an entity is required to capitalize, and subsequently amortize into expense, certain incremental costs of obtaining a contract with a customer if these costs are expected to be recovered. The incremental costs of obtaining a contract are those costs that an entity incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained (for example, sales commission). Heartland utilizes the practical expedient which allows entities to immediately expense contract acquisition costs when the asset that would have resulted from capitalizing these costs would have been amortized in one year or less. Upon adoption of Topic 606, Heartland did not capitalize any contract acquisition costs.

TWENTY-TWO
PARENT COMPANY ONLY FINANCIAL INFORMATION

Condensed financial information for Heartland Financial USA, Inc. is as follows:

BALANCE SHEETS
(Dollars in thousands)

	December 31,	
	2018	2017
Assets:		
Cash and interest bearing deposits	\$ 39,666	\$ 24,310
Investment in subsidiaries	1,538,766	1,194,747
Other assets	30,321	28,536
Due from subsidiaries	6,000	6,000
Total assets	\$ 1,614,753	\$ 1,253,593
Liabilities and stockholders' equity:		
Other borrowings	\$ 269,553	\$ 246,438
Accrued expenses and other liabilities	20,025	15,698
Total liabilities	289,578	262,136
Stockholders' equity:		
Preferred stock	—	938
Common stock	34,477	29,953
Capital surplus	743,095	503,709
Retained earnings	579,252	481,331
Accumulated other comprehensive loss	(31,649)	(24,474)
Total stockholders' equity	1,325,175	991,457
Total liabilities and stockholders' equity	\$ 1,614,753	\$ 1,253,593

INCOME STATEMENTS
(Dollars in thousands)

	For the Years Ended December 31,		
	2018	2017	2016
Operating revenues:			
Dividends from subsidiaries	\$ 85,000	\$ 70,850	\$ 55,250
Securities gains, net	—	3,021	54
Other	493	2,292	1,712
Total operating revenues	85,493	76,163	57,016
Operating expenses:			
Interest	14,371	13,269	13,840
Salaries and employee benefits	3,639	3,146	3,044
Professional fees	2,841	2,379	2,487
Other operating expenses	12,510	7,889	2,664
Total operating expenses	33,361	26,683	22,035
Equity in undistributed earnings	52,570	16,212	37,926
Income before income tax benefit	104,702	65,692	72,907
Income tax benefit	12,296	9,580	7,442
Net income	116,998	75,272	80,349
Preferred dividends	(39)	(58)	(292)
Interest expense on convertible preferred debt	—	12	51
Net income available to common stockholders	\$ 116,959	\$ 75,226	\$ 80,108

STATEMENTS OF CASH FLOWS

(Dollars in thousands)

	For the Years Ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net income	\$ 116,998	\$ 75,272	\$ 80,349
Adjustments to reconcile net income to net cash provided by operating activities:			
Undistributed earnings of subsidiaries	(52,570)	(16,212)	(37,926)
Security gains, net	—	(3,021)	(54)
Gain on extinguishment of debt	—	(1,200)	—
Increase (decrease) in accrued expenses and other liabilities	5,336	(4,160)	(7,039)
(Increase) decrease in other assets	(1,559)	(567)	1,948
Excess tax benefits from stock based compensation	674	1,246	374
Other, net	5,401	4,714	4,892
Net cash provided by operating activities	74,280	56,072	42,544
Cash flows from investing activities:			
Capital contributions to subsidiaries	(30,696)	—	(18,000)
Proceeds from sales of available for sale securities	—	2,868	—
Proceeds from sale of other investments	—	211	94
Net assets acquired	(13,504)	(62,813)	(14,587)
Net cash used by investing activities	(44,200)	(59,734)	(32,493)
Cash flows from financing activities:			
Proceeds on short-term revolving credit line	25,000	20,000	—
Proceeds from borrowings	30,000	—	40,000
Repayments on short-term revolving credit line	(25,000)	(20,000)	—
Repayments of borrowings	(25,759)	(9,016)	(26,280)
Payment for the redemption of debt	—	(13,800)	—
Redemption of preferred stock	—	—	(81,698)
Cash dividends paid	(19,357)	(14,557)	(12,870)
Purchase of treasury stock	(97)	(625)	(3,719)
Proceeds from issuance of common stock	489	963	54,196
Net cash used by financing activities	(14,724)	(37,035)	(30,371)
Net increase (decrease) in cash and cash equivalents	15,356	(40,697)	(20,320)
Cash and cash equivalents at beginning of year	24,310	65,007	85,327
Cash and cash equivalents at end of year	\$ 39,666	\$ 24,310	\$ 65,007
Supplemental disclosure:			
Conversion of convertible debt to common stock	\$ —	\$ 558	\$ 1,442
Conversion/redemption of Series D preferred stock to common stock	\$ 938	\$ 419	\$ 2,420
Stock consideration granted for acquisition	\$ 238,075	\$ 175,196	\$ 57,433

TWENTY-THREE
SUMMARY OF QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

(Dollars in thousands, except per share data)

2018	As of and for the Quarter Ended			
	December 31	September 30	June 30	March 31
Net interest income	\$ 110,283	\$ 110,678	\$ 101,409	\$ 91,584
Provision for loan losses	9,681	5,238	4,831	4,263
Net interest income after provision for loan losses	100,602	105,440	96,578	87,321
Noninterest income	27,045	29,765	27,634	24,716
Noninterest expense	88,821	92,539	88,882	83,646
Income taxes	6,685	8,956	7,451	5,123
Net income	32,141	33,710	27,879	23,268
Preferred dividends	—	(13)	(13)	(13)
Net income available to common stockholders	<u>\$ 32,141</u>	<u>\$ 33,697</u>	<u>\$ 27,866</u>	<u>\$ 23,255</u>
Per share:				
Earnings per share-basic	\$ 0.93	\$ 0.98	\$ 0.85	\$ 0.76
Earnings per share-diluted	0.93	0.97	0.85	0.76
Cash dividends declared on common stock	0.19	0.14	0.13	0.13
Book value per common share	38.44	37.14	36.44	33.81
Weighted average common shares outstanding	34,474,336	34,452,377	32,620,775	30,441,776
Weighted average diluted common shares outstanding	34,670,180	34,644,187	32,830,751	30,645,212

(Dollars in thousands, except per share data)

2017	As of and for the Quarter Ended			
	December 31	September 30	June 30	March 31
Net interest income	\$ 92,856	\$ 89,844	\$ 74,580	\$ 73,028
Provision for loan losses	5,328	5,705	889	3,641
Net interest income after provision for loan losses	87,528	84,139	73,691	69,387
Noninterest income	25,528	24,977	25,624	25,893
Noninterest expense	77,878	78,759	69,298	71,740
Income taxes	21,506	8,725	8,059	5,530
Net income	13,672	21,632	21,958	18,010
Preferred dividends	(13)	(13)	(13)	(19)
Interest expense on convertible preferred debt	—	3	4	5
Net income available to common stockholders	<u>\$ 13,659</u>	<u>\$ 21,622</u>	<u>\$ 21,949</u>	<u>\$ 17,996</u>
Per share:				
Earnings per share-basic	\$ 0.46	\$ 0.73	\$ 0.82	\$ 0.68
Earnings per share-diluted	0.45	0.72	0.81	0.68
Cash dividends declared on common stock	0.18	0.11	0.11	0.11
Book value per common share	33.07	32.75	30.15	29.26
Weighted average common shares outstanding	29,948,536	29,647,534	26,686,845	26,334,788
Weighted average diluted common shares outstanding	30,209,043	29,910,437	26,972,580	26,627,830



Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors

Heartland Financial USA, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Heartland Financial USA, Inc. and subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 27, 2019 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 1994.

Des Moines, Iowa

February 27, 2019

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Under the direction of our Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) promulgated under the Securities and Exchange Act of 1934, as amended) as of December 31, 2018. Based on that evaluation, our management, including the Chief Executive Officer and Chief Financial Officer, concluded that our disclosure controls and procedures were effective in ensuring that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in applicable rules and forms and that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, in a manner that allows timely decisions regarding required disclosure.

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining effective internal control over financial reporting. Our internal control system was designed to provide reasonable assurance to our management, board of directors and stockholders regarding the reliability of financial reporting and the preparation and fair presentation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our internal control over financial reporting based upon the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control - Integrated Framework (2013)*. Based on our assessment, our internal control over financial reporting was effective as of December 31, 2018.

Heartland acquired First Bank Lubbock Bancshares, Inc. and its wholly owned subsidiary First Bank & Trust on May 18, 2018. First Bank & Trust which had assets of \$1.11 billion as of December 31, 2018, and revenues of \$47.6 million for the year ended December 31, 2018, was excluded from the scope of this report as allowed by the Securities and Exchange Commission. First Bank & Trust's assets comprised 10% of Heartland's assets at December 31, 2018, and First Bank & Trust's 2018 revenues were 8% of Heartland's revenues for 2018.

KPMG LLP, the independent registered public accounting firm that audited Heartland's consolidated financial statements as of and for the year ended December 31, 2018, included herein, has issued a report on Heartland's internal control over financial reporting. This report follows management's report.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no significant changes to Heartland's disclosure controls or internal controls over financial reporting during the quarter ended December 31, 2018, that have materially affected or are reasonably likely to materially affect Heartland's internal control over financial reporting.



Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors

Heartland Financial USA, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited Heartland Financial USA, Inc. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and related notes (collectively, the consolidated financial statements), and our report dated February 27, 2019 expressed an unqualified opinion on those consolidated financial statements.

The Company acquired First Bank Lubbock Bancshares, Inc. and its wholly-owned subsidiary First Bank & Trust on May 18, 2018, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2018, First Bank & Trust's internal control over financial reporting associated with total assets of \$1.11 billion and total revenues of \$47.6 million included in the consolidated financial statements of the Company as of and for the year ended December 31, 2018. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of First Bank & Trust.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management's Annual Report on Internal Control over Financial Reporting*. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

Des Moines, Iowa

February 27, 2019

ITEM 9B. OTHER INFORMATION

None

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information in the Proxy Statement for Heartland's 2019 Annual Meeting of Stockholders to be held on May 22, 2019, (the "2019 Proxy Statement") under the captions "Proposal 1-Election of Directors", "Security Ownership of Certain Beneficial Owners and Management", "Section 16(a) Beneficial Ownership Reporting Compliance" and "Corporate Governance and the Board of Directors" is incorporated by reference. The information regarding executive officers is included in Part I of this report.

ITEM 11. EXECUTIVE COMPENSATION

The information in our 2019 Proxy Statement, under the captions "Corporate Governance and the Board of Directors - Committees of the Board - Compensation/Nominating Committee", "Corporate Governance and the Board of Directors - Director Compensation" and "Executive Officer Compensation" is incorporated by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information in our 2019 Proxy Statement, under the caption "Security Ownership of Certain Beneficial Owners and Management" is incorporated by reference.

The following table sets forth information regarding outstanding options and shares available for future issuance under Heartland's equity plans as of December 31, 2018:

Plan category	Number of shares to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of shares remaining available for future issuance under equity compensation plans (excluding shares reflected in column (a)) (c)
Equity compensation plans approved by stockholders	266,995 ⁽¹⁾	\$ —	882,745 ⁽²⁾
Equity compensation plans not approved by stockholders	—	\$ —	—
Total	266,995	\$ —	882,745

(1) Includes 266,995 restricted stock units and performance-based stock units that were outstanding on December 31, 2018 under the Heartland 2012 Long-Term Incentive Plan as Amended and Restated. The number of performance-based stock units may increase or decrease depending on whether certain performance goals are achieved.

(2) Includes 437,893 shares available for issuance under the Heartland 2012 Long-Term Incentive Plan as Amended and Restated and 444,852 shares available for issuance under the 2016 Employee Stock Purchase Plan, of which up to 32,331 shares may be purchased during the current purchase period.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information in the 2019 Proxy Statement under the captions "Related Persons Transactions" and "Corporate Governance and the Board of Directors - Our Board of Directors - Director Independence" is incorporated by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information in the 2019 Proxy Statement under the caption "Relationship with Independent Registered Public Accounting Firm" is incorporated by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The documents filed as a part of this Annual Report on Form 10-K are listed below:

1. Financial Statements

The consolidated financial statements of Heartland Financial USA, Inc. are included in Item 8 of this Annual Report on Form 10-K.

2. Financial Statement Schedules

None.

3. Exhibits

The exhibits required by Item 601 of Regulation S-K are included along with this Annual Report on Form 10-K and are listed on the "Index of Exhibits" immediately following Item 16 below.

ITEM 16. FORM 10-K SUMMARY

None.

INDEX OF EXHIBITS

- [3.1 Restated Certificate of Incorporation of Heartland Financial USA, Inc. and Certificate of Designation of Series A Junior Participating Preferred Stock as filed with the Delaware Secretary of State on June 10, 2002 \(incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on November 8, 2008\).](#)
- [3.2 Bylaws of Heartland Financial USA, Inc. \(incorporated by reference to Exhibit 3.2 to the Registrant's Annual Report on Form 10-K filed on March 15, 2004\).](#)
- [3.3 Amendment to Certificate of Incorporation of Heartland Financial USA, Inc. as filed with the Delaware Secretary of State on July 30, 2009 \(incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 10, 2009\).](#)
- [3.4 Certificate of Designation of Senior Non-Cumulative Perpetual Preferred Stock, Series C, as filed with the Delaware Secretary of State on September 12, 2011 \(incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on September 15, 2011\).](#)
- [3.5 Amendment to Certificate of Incorporation of Heartland Financial USA, Inc. filed with the Delaware Secretary of State on May 28, 2015 \(incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 6, 2015\).](#)
- [3.6 Certificate of Designation of 7% Senior Non-Cumulative Perpetual Convertible Preferred Stock, Series D, as filed with the Delaware Secretary of State on February 5, 2016 \(incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on February 11, 2016\).](#)
- [3.7 Amendment to Certificate of Incorporation of Heartland Financial USA, Inc. as filed with the Delaware Secretary of State on May 18, 2017 \(incorporated by reference to Exhibit 3.4 to the Registrant's Amendment No. 2 to its Form S-4 Registration Statement filed on May 18, 2017\).](#)
- [3.8 Amendment to Certificate of Incorporation of Heartland Financial USA, Inc. as filed with the Delaware Secretary of State on August 28, 2018 \(incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on November 6, 2018\).](#)
- [4.1 Form of Specimen Stock Certificate for Heartland Financial USA, Inc. common stock \(incorporated by reference to Exhibit 4.1 to Registrant's Registration Statement on Form S-4 \(File No. 33-76228\) filed on May 4, 1994\).](#)
- [4.2 Indenture by and between Heartland Financial USA, Inc. and Wells Fargo Bank, National Association, dated as of January 31, 2006 \(incorporated by reference to Exhibit 10.19 to the Registrant's Annual Report on Form 10-K filed on March 10, 2006\).](#)
- [4.3 Indenture by and between Heartland Financial USA, Inc. and U.S. Bank National Association dated as of March 17, 2004 \(incorporated by reference to Exhibit 10.12 to the Registrant's Annual Report on Form 10-K filed on March 16, 2007\).](#)
- [4.4 Indenture between Heartland Financial USA, Inc. and Wilmington Trust Company dated as of June 21, 2007 \(incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on August 9, 2007\).](#)
- [4.5 Indenture between Heartland Financial USA, Inc. and Wilmington Trust Company dated as of June 26, 2007 \(incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on August 9, 2007\).](#)
- [4.6 Form of Senior Notes of Heartland Financial USA, Inc. \(incorporated by reference to Exhibit 10.26 to the Registrant's Annual Report on Form 10-K filed on March 16, 2011\).](#)

- [4.7](#) [Rights Agreement, dated as of January 17, 2012, between Heartland Financial USA, Inc. and Dubuque Bank and Trust Company, as Rights Agent \(incorporated by reference to Exhibit 4.1 to Registrant's Form 8-A filed on May 17, 2012\).](#)
- [4.8](#) [Indenture by and between Morrill Bancshares, Inc. and State Street Bank and Trust Company of Connecticut, National Association dated as of December 19, 2002 \(incorporated by reference to Exhibit 10.34 to the Registrant's Annual Report on Form 10-K filed on March 14, 2014\).](#)
- [4.9](#) [Indenture by and between Morrill Bancshares, Inc. and U.S. Bank National Association dated as of December 17, 2003 \(incorporated by reference to Exhibit 10.35 to the Registrant's Annual Report on Form 10-K filed on March 14, 2014\).](#)
- [4.10](#) [Indenture between Heartland Financial USA, Inc. and U.S. Bank National Association dated as of December 17, 2014, as supplemented \(including form of note\) \(incorporated by reference to Exhibit 4.1 and 4.2 to the Registrant's Current Report on Form 8-K filed on December 18, 2014\).](#)
- [4.11](#) [Form of Stock Certificate for 7% Senior Non-Cumulative Perpetual Convertible Preferred Stock, Series D \(incorporated by reference to Exhibit 4.4 to the Registrant's Annual Report on Form 10-K filed on March 11, 2016\).](#)
- [10.1](#) ⁽¹⁾ [Form of Split-Dollar Life Insurance Plan effective November 13, 2001, between the subsidiaries of Heartland Financial USA, Inc. and their selected officers, including four subsequent amendments effective January 1, 2002, May 1, 2002, September 16, 2003 and December 31, 2007. These plans are in place at Dubuque Bank and Trust Company, Illinois Bank & Trust, Wisconsin Bank & Trust and New Mexico Bank & Trust \(incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on May 12, 2008\).](#)
- [10.2](#) ⁽¹⁾ [Form of Executive Supplemental Life Insurance Plan effective January 1, 2005, between the subsidiaries of Heartland Financial USA, Inc. and their selected officers, including a subsequent amendment effective December 31, 2007. These plans are in place at Dubuque Bank and Trust Company, Illinois Bank & Trust, Wisconsin Bank & Trust and New Mexico Bank & Trust \(incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on May 12, 2008\).](#)
- [10.3](#) ⁽¹⁾ [Form of Executive Life Insurance Bonus Plan effective December 31, 2007, between Heartland Financial USA, Inc. and selected officers of Heartland Financial USA, Inc. and its subsidiaries, including a subsequent amendment effective December 31, 2007 \(incorporated by reference to Exhibit 10.8 to the Registrant's Annual Report on Form 10-K filed on March 16, 2009\).](#)
- [10.4](#) ⁽¹⁾ [Form of Split-Dollar Agreement effective November 1, 2008, between the subsidiaries of Heartland Financial USA, Inc. and their selected officers. These plans are in place at Dubuque Bank and Trust Company, Illinois Bank & Trust, Wisconsin Bank & Trust, New Mexico Bank & Trust, Arizona Bank & Trust, Citywide Banks, Minnesota Bank & Trust and Citizens Finance Co. \(incorporated by reference to Exhibit 10.9 to the Registrant's Annual Report on Form 10-K filed on March 16, 2009\).](#)
- [10.5](#) [ISDA Confirmation Letter between Heartland Financial USA, Inc. and Bankers Trust Company dated April 5, 2011 \(incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on May 10, 2011\).](#)
- [10.6](#) [Promissory Note and Business Loan Agreement between Heartland Financial USA, Inc. and Bankers Trust Company dated June 14, 2013 \(incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on August 8, 2013\)](#)
- [10.7](#) ⁽¹⁾ [Form of Time-Based Restricted Stock Unit Award Agreement for Heartland Financial USA, Inc. 2012 Long-Term Incentive Plan for time-based awards vesting in the third, fourth and fifth years following the original grant award \(incorporated by reference to Exhibit 10.32 to the Registrant's Annual Report on Form 10-K filed on March 14, 2014\).](#)

- [10.8](#) [First Amendment to Business Loan Agreement dated June 14, 2013, between Heartland Financial USA, Inc. and Bankers Trust Company dated August 1, 2014 \(incorporated by reference to Exhibit 10.21 to the Registrant's Annual Report on Form 10-K filed on February 28, 2018\).](#)
- [10.9](#) ⁽¹⁾ [Form of Change In Control Agreements between Heartland Financial USA, Inc. and Lynn B. Fuller and Bruce K. Lee \(compensation multiple of 2 and health benefits term of 18 months\); Michael J. Coyle, Brian J. Fox, Bryan R. McKeag, Rodney Sloan, Andrew E. Townsend and Frank E. Walter \(compensation multiple of 1 and health benefits term of 12 months\) \(incorporated by reference to Exhibit 10.38 to the Registrant's Annual Report on Form 10-K filed on March 13, 2015\).](#)
- [10.10](#) [Promissory Note and Second Amendment to Business Loan Agreement dated June 14, 2013, between Heartland Financial USA, Inc. and Bankers Trust Company dated June 14, 2015 \(incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on August 6, 2015\).](#)
- [10.11](#) [Form of 6.5% subordinated Notes Due 2019, of CIC Bancshares, Inc. and Form of Amendment to, and Assumption of Obligations under 6.5% Subordinated Notes Due 2019, of CIC Bancshares, Inc. \(incorporated by reference to Exhibit 10.39 to the Registrant's Annual Report on Form 10-K filed on March 11, 2016\).](#)
- [10.12](#) ⁽¹⁾ [Heartland Financial USA, Inc. 2012 Long-Term Incentive Plan as Amended and Restated \(incorporated by reference to Exhibit 10.1 to Registrant's Current Report on Form 8-K filed on May 20, 2016\).](#)
- [10.13](#) ⁽¹⁾ [Heartland Financial USA, Inc. 2016 Employee Stock Purchase Plan \(incorporated by reference to Exhibit 10.2 to Registrant's Current Report on Form 8-K filed on May 20, 2016\).](#)
- [10.14](#) [Promissory Note and Third Amendment to Business Loan Agreement dated June 14, 2013, between Heartland Financial USA, Inc. and Bankers Trust Company dated May 10, 2016 \(incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on August 5, 2016\).](#)
- [10.15](#) [Promissory Note and Fourth Amendment to Business Loan Agreement dated June 14, 2013, between Heartland Financial USA, Inc. and Bankers Trust Company dated June 14, 2016 \(incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q filed on August 5, 2016\).](#)
- [10.16](#) [Promissory Note and Fifth Amendment to Business Loan Agreement dated June 14, 2013, between Heartland Financial USA, Inc. and Bankers Trust Company dated July 20, 2016 \(incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q filed on August 5, 2016\).](#)
- [10.17](#) [Underwriting Agreement between Heartland Financial USA, Inc. and Raymond James & Associates, Inc. dated November 2, 2016 \(incorporated by reference to Exhibit 1.1 to the Registrant's Form 8-K filed on November 8, 2016\).](#)
- [10.18](#) [Revolving Credit Line Promissory Note issued in connection with the Business Loan Agreement dated June 14, 2013, between Heartland Financial USA, Inc. and Bankers Trust Company dated June 14, 2017 \(incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on August 4, 2017\).](#)
- [10.19](#) [Promissory Note issued in connection with the Business Loan Agreement dated June 14, 2013, between Heartland Financial USA, Inc. and Bankers Trust Company dated June 14, 2017 \(incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on August 4, 2017\).](#)
- [10.20](#) [Agreement and Plan of Merger between Heartland Financial USA, Inc. and First Bank Lubbock Bancshares, Inc. dated December 12, 2017 \(incorporated by reference to Exhibit 10.41 to the Registrant's Annual Report on Form 10-K filed on February 28, 2018\).](#)
- [10.21](#) ⁽¹⁾ [Form of Time-Based Restricted Stock Unit Award Agreement under the Heartland Financial USA, Inc. 2012 Long-Term Incentive Plan for time-based awards vesting in the first, second and third years following the original grant award \(incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on May 8, 2018\).](#)

- [10.22](#) ⁽¹⁾ [Form of Performance-Based Restricted Stock Unit Award Agreement One-Year Performance Period under the Heartland Financial USA, Inc. 2012 Long-Term Incentive Plan \(incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on May 8, 2018\).](#)
- [10.23](#) ⁽¹⁾ [Form of Performance-Based Restricted Stock Unit Award Agreement Three-Year Performance Period under the Heartland Financial USA, Inc. 2012 Long-Term Incentive Plan \(incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on May 8, 2018\).](#)
- [10.24](#) ⁽¹⁾ [Form of Director Restricted Stock Unit Award Agreement under the Heartland Financial USA, Inc. 2012 Long-Term Incentive Plan \(incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 7, 2018\).](#)
- [10.25](#) ⁽²⁾ [Promissory Note issued in connection with the Business Line Loan Agreement dated June 14, 2018, between Heartland Financial USA, Inc. and Bankers Trust Company dated June 14, 2018.](#)
- [10.26](#) ⁽²⁾ [Promissory Note issued in connection with the Business Line Loan Agreement dated June 14, 2018, between Heartland Financial USA, Inc. and Bankers Trust Company dated June 14, 2018.](#)
- [10.27](#) ⁽²⁾ [Agreement and Plan of Merger between Heartland Financial USA, Inc. and Blue Valley Ban Corp., dated January 16, 2019.](#)
- [11](#) ⁽²⁾ [Computation of Per Share Earnings.](#)
- [21.1](#) ⁽²⁾ [Subsidiaries of the Registrant.](#)
- [23.1](#) ⁽²⁾ [Consent of KPMG LLP.](#)
- [31.1](#) ⁽²⁾ [Certification of Chief Executive Officer pursuant to Rule 13a-15.](#)
- [31.2](#) ⁽²⁾ [Certification of Chief Financial Officer pursuant to Rule 13a-15.](#)
- [32.1](#) ⁽²⁾ [Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.](#)
- [32.2](#) ⁽²⁾ [Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.](#)
- 101 ⁽²⁾ Financial statement formatted in Extensible Business Reporting Language: (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Income, (iii) the Consolidated Statements of Cash Flows, (iv) the Consolidated Statements of Changes in Equity and Comprehensive Income, and (v) the Notes to Consolidated Financial Statements.

(1) Management contracts or compensatory plans or arrangements.

(2) Filed herewith.

Pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K, copies of certain instruments defining the rights of holders of long-term debt are not filed. Heartland agrees to furnish copies of such instruments to the SEC upon request.

SIGNATURES

Pursuant to the requirements of Section 13 of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on February 27, 2019.

Heartland Financial USA, Inc.

By: /s/ Bruce K. Lee
President and Chief Executive Officer

Date: February 27, 2019

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated on February 27, 2019.

By: /s/ Bruce K. Lee
Bruce K. Lee
President and Chief Executive Officer
(Principal Executive Officer and Duly Authorized Officer)

/s/ Lynn B. Fuller
Lynn B. Fuller
Executive Operating Chairman and Director
(Principal Executive Officer)

/s/ Bryan R. McKeag
Bryan R. McKeag
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

/s/ Janet M. Quick
Janet M. Quick
Executive Vice President and Deputy Chief Financial Officer
(Principal Accounting Officer)

/s/ Mark. Falb
Mark C. Falb
Director

/s/ Thomas L. Flynn
Thomas L. Flynn
Director

/s/ Jennifer K. Hopkins
Jennifer K. Hopkins
Director

/s/ R. Mike McCoy
R. Mike McCoy
Director

/s/ Susan G. Murphy
Susan G. Murphy
Director

/s/ Kurt M. Saylor
Kurt M. Saylor
Director

/s/ John K. Schmidt
John K. Schmidt
Director

/s/ Martin J. Schmitz
Martin J. Schmitz
Director

/s/ Duane E. White
Duane E. White
Director

OUR MISSION

Through excellence in customer service and respect for the individual, everyone profits.

**THE COMPANY
COMMITTS ITSELF TO:**

- Exceeding customers' expectations by delivering a full range of quality financial products and services through a highly personal and professional sales staff.
- Differentiating ourselves as a growing consortium of strong community banks through community involvement, active boards of directors, local presidents and local decision making at point of sale and service.
- Integrating customer-transparent support functions to gain economies of scale and remain price competitive.
- Expanding economic activity in the markets we serve, consistent with prudent business judgment and being a good corporate citizen.
- Providing satisfying employment in a positive work culture with compensation packages that compare favorably with other high-performance banks in our regions.
- Managing member bank resources strategically toward the achievement of high performance within the industry and increasing shareholder value.

