ANNUAL REPORT

## TO

## SHAREHOLDERS

## HAWTHORN BANCSHARES, INC.

Jefferson City, Missouri

BANCSHARES $_{\text {т }}$
March 14, 2019
Dear Shareholders:

Net income for 2018 was $\$ 10.7$ million, or $\$ 1.78$ per diluted share, compared to $\$ 3.4$ million, or $\$ 0.56$ per diluted share, for 2017. Included in the 2017 net income is a $\$ 4.1$ million charge, or $\$ 0.68$ per diluted share, that includes $\$ 3.1$ million resulting from application of the Tax Cuts and Jobs Act (the "Tax Act") enacted in the fourth quarter of 2017, and $\$ 1.0$ million resulting from tax planning initiatives implemented at year-end 2017. The 2018 net income reflects a $43.5 \%$ increase in non-GAAP earnings per diluted common share excluding the impact of the Tax Act and tax planning initiatives.

Although a portion of the increased earnings for 2018 resulted from the lower tax rate enacted by the Tax Act and tax planning initiatives, our pre-tax income also increased by $\$ 1.1$ million, or $9.4 \%$. Loan growth continued to contribute to these increased earnings as net loans increased $\$ 77.4$ million, or $7.3 \%$, from the last year-end leading to a $\$ 1.7$ million increase in net interest income over the prior year. This growth was achieved without a deterioration in loan quality as nonperforming loans to total loans decreased from $0.56 \%$ at December 31 , 2017, to $0.49 \%$ at December 31, 2018.

Our 2018 net interest margin of $3.30 \%$ continues to be squeezed by increased interest expense during the recent rising interest rate environment although the last two quarters of 2018 have shown increases from the prior linked quarters compared to the 11 basis points decline year over year. Non-interest income of $\$ 9.3$ million for 2018 increased $\$ 0.4$ million, or $4.4 \%$, from the prior year mostly due to increased service charge and bankcard income. Non-interest expense of $\$ 40.3$ million for 2018 was $\$ 1.5$ million, or $3.9 \%$, higher than the prior year. This increase over the prior year was mostly due to a $\$ 0.9$ million increase in salaries and a $\$ 0.5$ million increase in benefits. One-time bonuses paid to staff in the first quarter 2018 as a result of the benefits accruing from the enactment of the Tax Act contributed $\$ 0.4$ million of the salary increase as did annual cost of living increases averaging $3 \%$. The increase in benefits was due to higher medical and pension benefit costs.

As of December 31, 2018, we have been able to reduce our full-time equivalent head count by 45 , or approximately $14 \%$, since December 31, 2017, most of which occurred in the latter half of 2018. As a result, the cost savings from this reduction will be more fully realized in 2019. We continue to pursue initiatives to improve our efficiency ratio including right sizing our branch network. To this end, we closed our Windsor branch during the fourth quarter 2018 and completed the sale of our Branson branch in February 2019. While these transactions are not expected to have a significant effect on loan or deposit volumes, they will further reduce head count and operating expenses.

Our capital levels at December 31, 2018 continue to exceed regulatory well capitalized thresholds with $9.55 \%$ of leverage capital and $13.28 \%$ of total risk-based capital.

Maintaining strong asset quality while achieving sustainable growth and improving our net interest margin are our primary initiatives. As is evident from this year's financial results, we have taken proactive steps to reduce costs and improve efficiencies, which should continue into the coming year. I am committed to further improving earnings performance; sustaining sound and proper capital levels; and paying regular dividends.

Hawthorn's staff, management, Board of Directors and Advisory Board members are committed to the continued growth of our strong community bank and delivering long term value to our shareholders. We appreciate your support and encourage you to continue to use Hawthorn Bank for your banking needs and request that you refer prospective customers to your bank.

Sincerely,


David T. Turner, Chairman \& Chief Executive Officer

## A WORD CONCERNING FORWARD-LOOKING STATEMENTS

This report contains certain forward-looking statements with respect to the financial condition, results of operations, plans, objectives, future performance and business of the Company, Hawthorn Bancshares, Inc., and its subsidiaries, including, without limitation:

- statements that are not historical in nature, and
- statements preceded by, followed by or that include the words believes, expects, may, will, should, could, anticipates, estimates, intends or similar expressions.

Forward-looking statements are not guarantees of future performance or results. They involve risks, uncertainties and assumptions. Actual results may differ materially from those contemplated by the forward-looking statements due to, among others, the following factors:

- competitive pressures among financial services companies may increase significantly,
- changes in the interest rate environment may reduce interest margins,
- general economic conditions, either nationally or in Missouri, may be less favorable than expected and may adversely affect the quality of our loans and other assets,
- increases in non-performing assets in the Company's loan portfolios and adverse economic conditions may necessitate increases to our provisions for loan losses,
- costs or difficulties related to the integration of the business of the Company and its acquisition targets may be greater than expected,
- legislative, regulatory, or tax law changes may adversely affect the business in which the Company and its subsidiaries are engaged, and
- changes may occur in the securities markets.

We have described under the caption Risk Factors in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, and in other reports filed with the SEC from time to time, additional factors that could cause actual results to be materially different from those described in the forward-looking statements. Other factors that have not been identified in this report could also have this effect. You are cautioned not to put undue reliance on any forward-looking statement, which speak only as of the date they were made.

# HAWTHORN BANCSHARES, INC. MANAGEMENT'S DISCUSSION AND ANALYSIS OF CONSOLIDATED FINANCIAL CONDITION AND RESULTS OF OPERATIONS 

## Overview

Crucial to the Company's community banking strategy is growth in its commercial banking services, retail mortgage lending and retail banking services. Through the branch network of its subsidiary bank, Hawthorn Bank (the Bank), the Company, with $\$ 1.5$ billion in assets at December 31, 2018, provides a broad range of commercial and personal banking services. The Bank's specialties include commercial banking for small and mid-sized businesses, including equipment, operating, commercial real estate, Small Business Administration (SBA) loans, and personal banking services including real estate mortgage lending, installment and consumer loans, certificates of deposit, individual retirement and other time deposit accounts, checking accounts, savings accounts, and money market accounts. Other financial services that the Company provides include trust services that include estate planning, investment and asset management services and a comprehensive suite of cash management services. The geographic areas in which the Company provides products and services include the Missouri communities in and surrounding Jefferson City, Columbia, Clinton, Warsaw, Springfield, and the greater Kansas City metropolitan area.

The Company's primary source of revenue is net interest income derived primarily from lending and deposit taking activities. Much of the Company's business is commercial, commercial real estate development, and residential mortgage lending. The Company's income from mortgage brokerage activities is directly dependent on mortgage rates and the level of home purchases and refinancing activity.

The success of the Company's growth strategy depends primarily on the ability of its banking subsidiary to generate an increasing level of loans and deposits at acceptable risk levels and on acceptable terms without significant increases in non-interest expenses relative to revenues generated. The Company's financial performance also depends, in part, on its ability to manage various portfolios and to successfully introduce additional financial products and services by expanding new and existing customer relationships, utilizing improved technology, and enhancing customer satisfaction. Furthermore, the success of the Company's growth strategy depends on its ability to maintain sufficient regulatory capital levels during periods in which general economic conditions are unfavorable and despite economic conditions being beyond its control.

The Company's subsidiary bank is a full-service bank conducting a general banking business, offering its customers checking and savings accounts, debit cards, certificates of deposit, safety deposit boxes and a wide range of lending services, including commercial and industrial loans, residential real estate loans, single payment personal loans, installment loans and credit card accounts. In addition, the Bank provides trust services.

The deposit accounts of the Bank are insured by the Federal Deposit Insurance Corporation (FDIC) to the extent provided by law. The operations of the Bank are supervised and regulated by the FDIC and the Missouri Division of Finance. Periodic examinations of the Bank are conducted by representatives of the FDIC and the Missouri Division of Finance. Such regulations, supervision and examinations are principally for the benefit of depositors, rather than for the benefit of shareholders. The Company is subject to supervision and examination by the Board of Governors of the Federal Reserve System.

## SELECTED CONSOLIDATED FINANCIAL DATA

The following table presents selected consolidated financial information for the Company as of and for each of the years in the five-years ended December 31, 2018. The selected consolidated financial data should be read in conjunction with the Consolidated Financial Statements of the Company, including the related notes, presented elsewhere herein.

| Income Statement Data <br> (In thousands, except per share data) | 2018 |  | 2017 |  | 2016 |  | 2015 |  | 2014 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest income | \$ | 57,779 | \$ | 50,935 | \$ | 46,010 | \$ | 45,756 | \$ | 44,498 |
| Interest expense |  | 13,186 |  | 8,007 |  | 5,663 |  | 4,999 |  | 5,044 |
| Net interest income |  | 44,593 |  | 42,928 |  | 40,347 |  | 40,757 |  | 39,454 |
| Provision for loan losses |  | 1,475 |  | 1,765 |  | 1,425 |  | 250 |  | - |
| Net interest income after provision for loan losses . . . . . . . . . . . . |  | 43,118 |  | 41,163 |  | 38,922 |  | 40,507 |  | 39,454 |
| Non-interest income. |  | 9,341 |  | 8,950 |  | 8,315 |  | 9,158 |  | 8,729 |
| Investment securities gains, net. |  | 255 |  | 5 |  | 602 |  | 8 |  | 20 |
| Non-interest expense |  | 40,332 |  | 38,802 |  | 36,807 |  | 36,494 |  | 36,507 |
| Income before income taxes |  | 12,382 |  | 11,316 |  | 11,032 |  | 13,179 |  | 11,696 |
| Income tax expense |  | 1,668 |  | 7,902 |  | 3,750 |  | 4,580 |  | 4,042 |
| Net income . . . . . | \$ | 10,714 | \$ | 3,414 | \$ | 7,282 | \$ | 8,599 | \$ | 7,654 |
| Per Share Data |  |  |  |  |  |  |  |  |  |  |
| Basic earnings per share | \$ | 1.78 | \$ | 0.56 | \$ | 1.19 | \$ | 1.41 | \$ | 1.25 |
| Diluted earnings per share. |  | 1.78 |  | 0.56 |  | 1.19 |  | 1.41 |  | 1.25 |
| Cash dividends paid on common stock |  | 1,993 |  | 1,474 |  | 1,097 |  | 1,058 |  | 1,017 |
| Common stock dividend |  | 5,014 |  | 4,166 |  | 3,149 |  | 2,847 |  | 2,697 |
| Book value per share . |  | 16.49 |  | 15.08 |  | 14.93 |  | 14.27 |  | 13.17 |
| Market price per share. |  | 21.03 |  | 19.95 |  | 16.36 |  | 14.00 |  | 12.18 |
| Basic weighted average shares of common stock outstanding. |  | 6,026,971 |  | 6,057,920 |  | 6,095,727 |  | 6,116,558 |  | 6,116,623 |
| Diluted weighted average shares of common stock outstanding . . |  | 6,032,013 |  | 6,063,417 |  | 6,095,727 |  | 6,116,558 |  | 6,116,623 |


| (In thousands) | 2018 | 2017 | 2016 | 2015 | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Balance Sheet Data (at year end) |  |  |  |  |  |
| Total assets | \$ 1,481,682 | \$ 1,429,216 | \$ 1,287,048 | \$ 1,200,921 | \$ 1,169,731 |
| Net loans. | 1,134,975 | 1,057,580 | 964,143 | 856,476 | 852,114 |
| Investment securities | 223,880 | 237,579 | 224,308 | 243,091 | 203,720 |
| Total deposits | 1,198,468 | 1,125,812 | 1,010,666 | 947,197 | 969,514 |
| Federal Home Loan Bank advances and other borrowings | 95,153 | 121,382 | 93,392 | 50,000 | 43,000 |
| Subordinated notes. | 49,486 | 49,486 | 49,486 | 49,486 | 49,486 |
| Total stockholders' equity | 99,414 | 91,371 | 91,017 | 87,286 | 80,568 |
| Balance Sheet Data (average balances) |  |  |  |  |  |
| Total assets | \$ 1,446,160 | \$ 1,352,343 | \$ 1,251,741 | \$ 1,199,061 | \$ 1,156,911 |
| Net loans | 1,086,163 | 1,013,702 | 904,069 | 852,514 | 839,957 |
| Investment securities | 242,806 | 226,911 | 243,169 | 242,740 | 212,697 |
| Total deposits | 1,169,243 | 1,068,487 | 997,514 | 975,036 | 971,777 |
| Federal Home Loan Bank advances and other borrowings | 81,945 | 98,383 | 67,212 | 48,474 | 29,964 |
| Subordinated notes. | 49,486 | 49,486 | 49,486 | 49,486 | 49,486 |
| Total stockholders' equity | 93,615 | 95,116 | 91,401 | 84,818 | 78,953 |
| Key Ratios |  |  |  |  |  |
| Earnings Ratios |  |  |  |  |  |
| Return on average total assets | 0.74 \% | 0.25 \% | 0.58 \% | 0.72 \% | 0.66 \% |
| Return on average common stockholders' equity. | 11.45 | 3.59 | 7.97 | 10.14 | 9.69 |
| Efficiency ratio (3) | 74.78 | 74.79 | 75.64 | 73.10 | 75.74 |
| Net interest spread | 3.05 | 3.24 | 3.36 | 3.59 | 3.61 |
| Net interest margin. | 3.30 | 3.41 | 3.48 | 3.69 | 3.72 |
| Asset Quality Ratios |  |  |  |  |  |
| Allowance for loan losses to loans | 1.02 \% | 1.02 \% | 1.02 \% | 1.00 \% | 1.06 \% |
| Non-performing loans to loans (1) | 0.49 | 0.56 | 0.36 | 0.51 | 2.13 |
| Non-performing assets to loans (2) | 1.68 | 1.80 | 1.81 | 2.36 | 3.51 |
| Non-performing assets to assets (2) | 1.30 | 1.34 | 1.37 | 1.70 | 2.58 |
| Allowance for loan losses to non-performing loans | 208.97 | 180.87 | 282.94 | 194.48 | 49.72 |
| Net loan charge-offs to average loans. | 0.06 | 0.08 | 0.02 | 0.09 | 0.54 |
| Capital Ratios |  |  |  |  |  |
| Average stockholders' equity to average total assets . | 6.47 \% | 7.03 \% | 7.30 \% | 7.07 \% | 6.82 \% |
| Period-end stockholders' equity to period-end assets | 6.71 | 6.39 | 7.07 | 7.27 | 6.89 |
| Total risk-based capital ratio . | 13.28 | 12.93 | 13.88 | 14.78 | 15.78 |
| Tier 1 risk-based capital ratio | 11.21 | 10.72 | 11.42 | 12.03 | 12.38 |
| Common equity Tier 1 capital. | 8.48 | 8.04 | 8.61 | 9.04 | NA |
| Tier 1 leverage ratio . . . . . . . . . . . . . . . . . . . . . . . . | 9.55 | 9.33 | 9.87 | 9.84 | 9.42 |

(1) Nonperforming loans consist of nonaccrual loans, troubled debt restructurings included in nonaccrual loans, and loans contractually past due 90 days or more and still accruing interest.
(2) Nonperforming assets consist of nonperforming loans and other real estate owned and repossessed assets.
(3) Efficiency ratio is calculated as non-interest expense as a percentage of revenue. Total revenue includes net interest income and noninterest income.

## Non-GAAP Financial Measures

The financial measures in the table below include items that are non-GAAP, meaning they are not presented in accordance with generally accepted accounting principles (GAAP) in the U.S. The non-GAAP items presented are non-GAAP net income, non-GAAP basic earnings per share, non-GAAP diluted earnings per share, non-GAAP return on average assets and non-GAAP return on average common equity. These measures include adjustments to exclude the transitional impact of the Tax Cuts and Jobs Act (Tax Act) and the Company's implementation of new tax planning initiatives, which are non-recurring and not considered indicative of underlying earnings performance. The adjustments do not include the ongoing impacts of the lower U.S. statutory rate under the Tax Act on 2018 earnings. The Company believes that the exclusion of these items provides a useful basis for evaluating the Company's underlying performance, but should not be
considered in isolation and is not in accordance with, or a substitute for, evaluating performance utilizing GAAP financial information. The Company uses non-GAAP measures to analyze its financial performance and to make financial comparisons to prior periods presented on a similar basis. The Company believes that providing such adjusted results allows investors to better understand the Company's comparative operating performance for the periods presented. Non-GAAP measures are not formally defined by GAAP or codified in the federal banking regulations, and other entities may use calculation methods that differ from those used by the Company. The Company has reconciled each of these measures to a comparable GAAP measure below:

| (In thousands, except per share data).............................................. | 2018 |  | 2017 |  | 2016 | 2015 |  | 2014 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net income - GAAP. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 10,714 | \$ | 3,414 | \$ | 7,282 | \$ | 8,599 | \$ | 7,654 |
| Effect of net deferred tax asset adjustments (a) . . . . . . . . . . . . . . . . . . . . | - |  | 4,105 |  | - |  | - |  | - |
| Net income - non-GAAP . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 10,714 | \$ | 7,519 | \$ | 7,282 | \$ | 8,599 | \$ | 7,654 |

## Per Share Data

| Basic earnings per share - GAAP | \$ | 1.78 | \$ | 0.56 | \$ | 1.19 | \$ | 1.41 | \$ | 1.25 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Effect of net deferred tax asset adjustments (a) . . . . . . . . . . . . . . . . . . . . |  | - |  | 0.68 |  | - |  | - |  | - |
| Basic earnings per share - non-GAAP . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 1.78 | \$ | 1.24 | \$ | 1.19 | \$ | 1.41 | \$ | 1.25 |
| Diluted earnings per share - GAAP | \$ | 1.78 | \$ | 0.56 | \$ | 1.19 | \$ | 1.41 | \$ | 1.25 |
| Effect of net deferred tax asset adjustments (a) . . . . . . . . . . . . . . . . . . . . |  | - |  | 0.68 |  | - |  | - |  | - |
| Diluted earnings per share - non-GAAP. . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 1.78 | \$ | 1.24 | \$ | 1.19 | \$ | 1.41 | \$ | 1.25 |


| Key Ratios |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Return on average total assets - GAAP | 0.74 \% | 0.25 \% | 0.58 \% | 0.72 \% | 0.66 \% |
| Effect of net deferred tax asset adjustments (a) | - \% | 0.31 \% | - \% | - \% | - \% |
| Return on average total assets - non-GAAP. | 0.74 \% | 0.56 \% | 0.58 \% | 0.72 \% | 0.66 \% |
| Return on average stockholders' equity - GAAP | 11.45 \% | 3.59 \% | 7.97 \% | 10.14 \% | 9.69 \% |
| Effect of net deferred tax asset adjustments (a) . . . . . . . . . . . . . . . . . . . . | - \% | 4.31 \% | - \% | - \% | - \% |
| Return on average stockholders' equity - non-GAAP . . . . . . . . . . . . . . | 11.45 \% | 7.90 \% | 7.97 \% | 10.14 \% | $\underline{9.69 \%}$ |

(a) Calculated using the difference in combined statutory rates of $38 \%$ for 2017 and $21 \%$ for subsequent years.

## CRITICAL ACCOUNTING POLICIES

The following accounting policies are considered most critical to the understanding of the Company's financial condition and results of operations. These critical accounting policies require management's most difficult, subjective and complex judgments about matters that are inherently uncertain. Because these estimates and judgments are based on current circumstances, they may change over time or prove to be inaccurate based on actual experiences. In the event that different assumptions or conditions were to prevail, and depending upon the severity of such changes, the possibility of a materially different financial condition and/or results of operations could reasonably be expected. The impact and any associated risks related to the Company's critical accounting policies on its business operations are discussed throughout Management's Discussion and Analysis of Financial Condition and Results of Operations, where such policies affect the reported and expected financial results.

## Allowance for Loan Losses

Management has identified the accounting policy related to the allowance for loan losses (ALL) as critical to the understanding of the Company's results of operations, since the application of this policy requires significant management assumptions and estimates that could result in materially different amounts to be reported if conditions or underlying circumstances were to change. Further discussion of the methodology used in establishing the allowance and the impact of any associated risks related to these policies on the Company's business operations is provided in Note 1 to the Company's consolidated financial statements and is also discussed in the Lending and Credit Management section below.

## RESULTS OF OPERATIONS ANALYSIS

The Company has prepared all of the consolidated financial information in this report in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). In preparing the consolidated financial statements in accordance with U.S. GAAP, the Company makes estimates and assumptions that affect the reported amount of assets and liabilities, disclosure of contingent assets and
liabilities at the date of the consolidated financial statements, and the reported amounts of revenue and expenses during the reporting period. There can be no assurances that actual results will not differ from those estimates.

|  |  |  |  | \$ Change |  |  | \% Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (In thousands) | 2018 | 2017 | 2016 |  | '18-17 | '17-'16 | '18-'17 | '17-'16 |
| Net interest income | \$ 44,593 | \$ 42,928 | \$ 40,347 | \$ | 1,665 | \$ 2,581 | 3.9 \% | 6.4 \% |
| Provision for loan losses | 1,475 | 1,765 | 1,425 |  | (290) | 340 | (16.4) | 23.9 |
| Noninterest income | 9,341 | 8,950 | 8,315 |  | 391 | 635 | 4.4 | 7.6 |
| Investment securities gains, net. | 255 | 5 | 602 |  | 250 | (597) | NM | (99.2) |
| Noninterest expense. | 40,332 | 38,802 | 36,807 |  | 1,530 | 1,995 | 3.9 | 5.4 |
| Income before income taxes | 12,382 | 11,316 | 11,032 |  | 1,066 | 284 | 9.4 | 2.6 |
| Income tax expense | 1,668 | 7,902 | 3,750 |  | $(6,234)$ | 4,152 | (78.9) | 110.7 |
| Net income. . | \$ 10,714 | \$ 3,414 | \$ 7,282 | \$ | 7,300 | \$ $(3,868)$ | 213.8 \% | (53.1)\% |

## NM - not meaningful

Consolidated net income increased $\$ 7.3$ million to $\$ 10.7$ million, or $\$ 1.78$ per diluted share, for the year ended December 31 , 2018 compared to $\$ 3.4$ million, or $\$ 0.56$ per diluted share, for the year ended December 31, 2017. For the year ended December 31, 2018, the return on average assets (ROA) was $0.74 \%$, the return on average stockholders' equity (ROE) was $11.45 \%$, and the efficiency ratio was $74.78 \%$.

Consolidated net income decreased $\$ 3.9$ million to $\$ 3.4$ million, or $\$ 0.56$ per diluted share, for the year ended December 31,2017 compared to $\$ 7.3$ million, or $\$ 1.19$ per diluted share, for the year ended December 31, 2016. For the year ended December 31, 2017, the return on average assets (ROA) was $0.25 \%$, the return on average stockholders' equity (ROE) was $3.59 \%$, and the efficiency ratio was $74.79 \%$.

The ROA and ROE for 2017 reflects a $\$ 4.1$ million write-down of the Company's net deferred tax asset (DTA) in response to the enactment of the Tax Cuts and Jobs Act (Tax Act) and additional tax planning initiatives, which was recorded as additional income tax expense during the fourth quarter of 2017. As a result, the Company's effective tax rate for 2017 was $69.8 \%$ compared to $13.5 \%$ for 2018 and $34 \%$ for 2016. The federal corporate income tax rate declined from $34 \%$ to $21 \%$ effective January 1, 2018 as a result of the Tax Act.

Net interest income was $\$ 44.6$ million for the year ended December 31, 2018 compared to $\$ 42.9$ million and $\$ 40.3$ million for the years ended December 31, 2017 and 2016, respectively. The net interest margin was $3.30 \%$ for the year ended December 31, 2018 compared to $3.41 \%$ and $3.48 \%$ for the years ended December 31, 2017 and 2016, respectively.

A $\$ 1.5$ million provision for loan losses was recorded for the year ended December 31, 2018 compared to a $\$ 1.8$ million and $\$ 1.4$ million provision for the years ended December 31, 2017 and 2016, respectively.

The Company's net charge-offs for the year ended December 31, 2018, were $\$ 675,000$, or $0.06 \%$ of average loans compared to $\$ 799,000$, or $0.08 \%$ of average loans for the year ended December 31, 2017, and $\$ 143,000$, or $0.02 \%$ of average loans for the year ended December 31, 2016.

Non-performing loans totaled $\$ 5.6$ million, or $0.49 \%$ of total loans, at December 31,2018 compared to $\$ 6.0$ million, or $0.56 \%$ of total loans at December 31, 2017, and $\$ 3.5$ million, or $0.36 \%$ of total loans, at December 31, 2016.

Non-interest income increased $\$ 391,000$, or $4.4 \%$, for the year ended December 31, 2018 compared to the year ended December 31 , 2017, and increased $\$ 635,000$, or $7.6 \%$, for the year ended December 31, 2017 compared to the year ended December 31, 2016. These changes are discussed in greater detail below under Non-interest Income.

Investment securities gains, net of $\$ 255,000$ were recorded for the year ended December 31, 2018 compared to $\$ 5,000$ and $\$ 602,000$ for the years ended December 31, 2017 and 2016, respectively. Security gains for the year ended December 31, 2018 included gains realized from a series of short term sales of U.S. Treasury securities with repurchase agreements in order to generate capital gains to offset capital losses expiring in 2018 and 2019.

Non-interest expense increased $\$ 1.5$ million, or $3.9 \%$, for the year ended December 31, 2018 compared to the year ended December 31, 2017, and increased $\$ 2.0$ million, or $5.4 \%$, for the year ended December 31, 2017, compared to the year ended December 31, 2016. These changes are discussed in greater detail below under Non-interest Expense.

## Average Balance Sheets

Net interest income is the largest source of revenue resulting from the Company's lending, investing, borrowing, and deposit gathering activities. It is affected by both changes in the level of interest rates and changes in the amounts and mix of interest earning assets and interest bearing liabilities. The following table presents average balance sheets, net interest income, average yields of earning assets, average costs of interest bearing liabilities, net interest spread and net interest margin on a fully taxable equivalent basis for each of the years in the three year periods ended December 31, 2018, 2017, and 2016, respectively.

|  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |

(1) Interest income and yields are presented on a fully taxable equivalent basis using the federal statutory income tax rate of $21 \%$ and $34 \%$, net of nondeductible interest expense. Such adjustments totaled $\$ 658,000, \$ 568,000$ and $\$ 461,000$ for the years ended December 31, 2018, 2017 and 2016, respectively.
(2) Non-accruing loans are included in the average amounts outstanding.
(3) Fees and costs on loans are included in interest income.

## Rate and volume analysis

The following table summarizes the changes in net interest income on a fully taxable equivalent basis, by major category of interest earning assets and interest bearing liabilities, identifying changes related to volumes and rates for the years ended December 31, 2018, compared to December 31, 2017, and for the years ended December 31, 2017 compared to December 31, 2016. The change in interest due to the combined rate/volume variance has been allocated to rate and volume changes in proportion to the absolute dollar amounts of change in each.

| (In thousands) | 2018 |  |  |  | 2017 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Change due to |  |  |  | Change due to |  |  |  |
|  | Total Change |  | Average Volume | Average Rate | Total Change |  | Average Volume | Average Rate |
| Interest income on a fully taxable equivalent basis: (1) |  |  |  |  |  |  |  |  |
| Loans: (2) (4) |  |  |  |  |  |  |  |  |
| Commercial | \$ 1,395 | \$ | 642 | \$ 753 | \$ 1,056 | \$ | 1,160 | \$ (104) |
| Real estate construction - residential | 564 |  | 411 | 153 | 195 |  | 176 | 19 |
| Real estate construction - commercial | 1,522 |  | 1,201 | 321 | 1,534 |  | 1,581 | (47) |
| Real estate mortgage - residential | 144 |  | (438) | 582 | 162 |  | 67 | 95 |
| Real estate mortgage - commercial. | 2,007 |  | 1,653 | 354 | 1,750 |  | 1,827 | (77) |
| Installment and other consumer | 32 |  | 27 | 5 | 92 |  | 242 | (150) |
| Investment securities: (3) |  |  |  |  |  |  |  |  |
| U.S. Treasury | 209 |  | 210 | (1) | 6 |  | - | 6 |
| U.S. government and federal agency obligations. | 258 |  | 97 | 161 | 111 |  | (11) | 122 |
| Obligations of states and political subdivisions . | (77) |  | (112) | 35 | 205 |  | 319 | (114) |
| Mortgage-backed securities. | 373 |  | 45 | 328 | (339) |  | (557) | 218 |
| Other debt securities. | 15 |  | (2) | 17 | 7 |  | - | 7 |
| Other investment securities | 60 |  | (15) | 75 | 66 |  | 33 | 33 |
| Federal funds sold and interest bearing deposits in other financial institutions | 432 |  | 139 | 293 | 187 |  | 51 | 136 |
| Total interest income . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6,934 |  | 3,858 | 3,076 | 5,032 |  | 4,888 | 144 |
| Interest expense: |  |  |  |  |  |  |  |  |
| NOW accounts | 1,017 |  | 41 | 976 | 507 |  | 53 | 454 |
| Savings | (2) |  | (2) | - | 1 |  | 1 | - |
| Interest checking | 22 |  | 17 | 5 | 9 |  | 6 | 3 |
| Money market. | 2,067 |  | 462 | 1,605 | 653 |  | 118 | 535 |
| Time deposits | 1,189 |  | 124 | 1,065 | 322 |  | (49) | 371 |
| Federal funds purchased and securities sold under agreements |  |  |  |  |  |  |  |  |
| Federal Home Loan Bank advances and other borrowings. | (73) |  | (287) | 214 | 552 |  | 501 | 51 |
| Subordinated notes. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 478 |  | - | 478 | 256 |  | - | 256 |
| Total interest expense . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 5,188 |  | 405 | 4,783 | 2,349 |  | 616 | 1,733 |
| Net interest income on a fully taxable equivalent basis . . . . . . | \$ 1,746 | \$ | 3,453 | \$ $(1,707)$ | \$ 2,683 | \$ | 4,272 | \$ $(1,589)$ |

(1) Interest income and yields are presented on a fully taxable equivalent basis using the federal statutory income tax rate of $21 \%$ for 2018 and $34 \%$ for 2017 and 2016, net of nondeductible interest expense. Such adjustments totaled $\$ 658,000, \$ 568,000$ and $\$ 461,000$ for the years ended December 31, 2018, 2017 and 2016, respectively.
(2) Non-accruing loans are included in the average amounts outstanding.
(3) Fees and costs on loans are included in interest income.

Financial results for the year ended December 31, 2018 compared to the year ended December 31, 2017 reflected an increase in net interest income, on a tax equivalent basis, of $\$ 1.7$ million, or $4.01 \%$, and financial results for the year ended December 31, 2017 compared to the year ended December 31, 2016 reflected an increase of $\$ 2.7$ million, or $6.57 \%$.

Measured as a percentage of average earning assets, the net interest margin (expressed on a fully taxable equivalent basis) decreased to $3.30 \%$ for the year ended December 31, 2018, compared to $3.41 \%$ and $3.48 \%$ for the years ended December 31, 2017 and 2016, respectively.

The increase in net interest income for 2018 over 2017 was primarily due to an increase in average earning assets and the decrease in the net interest margin was primarily due to a 41 basis point increase in the rates paid on average interest bearing liabilities. The prime rate increased to $5.50 \%$ at December 31, 2018 compared to $4.50 \%$ at December 31, 2017.

The increase in net interest income for 2017 over 2016 was primarily due to an increase in average earning assets and the decrease in the net interest margin was primarily due to a 19 basis point increase in the rates paid on average interest bearing liabilities. The prime rate increased to $4.50 \%$ at December 31, 2017 compared to $3.75 \%$ at December 31, 2016.

Average interest-earning assets increased $\$ 98.4$ million, or $7.72 \%$, to $\$ 1.37$ billion for the year ended December 31,2018 compared to $\$ 1.27$ billion for the year ended December 31, 2017, and average interest bearing liabilities increased $\$ 87.4$ million, or $8.7 \%$, to $\$ 1.1$ billion for the year ended December 31, 2018 compared to $\$ 1.0$ billion for the year ended December 31, 2017.

Average interest-earning assets increased $\$ 102.1$ million, or $8.71 \%$, to $\$ 1.27$ billion for the year ended December 31,2017 compared to $\$ 1.17$ billion for the year ended December 31, 2016, and average interest bearing liabilities increased $\$ 72.8$ million, or $7.8 \%$, to $\$ 1.0$ billion for the year ended December 31, 2017 compared to $\$ 933.7$ million for the year ended December 31, 2016.

Total interest income (expressed on a fully taxable equivalent basis) increased to $\$ 58.4$ million for the year ended December 31, 2018 compared to $\$ 51.5$ million and $\$ 46.5$ million for the years ended December 31, 2017 and 2016, respectively. The Company's rates earned on interest earning assets were $4.26 \%$ for the year ended December 31, 2018 compared to $4.04 \%$ and $3.97 \%$ for the years ended December 31, 2017 and 2016, respectively.

Interest income on loans increased to $\$ 52.5$ million for the year ended December 31, 2018 compared to $\$ 46.8$ million and $\$ 42.1$ million for the years ended December 31, 2017 and 2016, respectively.

Average loans outstanding increased $\$ 73.2$ million, or $7.14 \%$, to $\$ 1.1$ billion for the year ended December 31, 2018 compared to $\$ 1.0$ billion for the year ended December 31, 2017. The average yield on loans receivable increased to $4.79 \%$ during the year ended December 31, 2018 compared to $4.57 \%$ for the year ended December 31, 2017.

Average loans outstanding increased $\$ 111.0$ million, or $12.16 \%$, to $\$ 1.0$ billion for the year ended December 31,2017 compared to $\$ 913.2$ million for the year ended December 31, 2016. The average yield on loans receivable decreased to $4.57 \%$ during the year ended December 31, 2017 compared to $4.61 \%$ for the year ended December 31, 2016. See the Lending and Credit Management section for further discussion of changes in the composition of the lending portfolio.

Total interest expense was $\$ 13.2$ million for the year ended December 31, 2018 compared to $\$ 8.0$ million and $\$ 5.7$ million for the years ended December 31, 2017 and 2016, respectively. The Company's rates paid on interest bearing liabilities was $1.21 \%$ for the year ended December 31, 2018 compared to $0.80 \%$ and $0.61 \%$ for the years ended December 31, 2017 and 2016, respectively. See the Liquidity Management section for further discussion.

Interest expense on deposits was $\$ 8.9$ million for the year ended December 31, 2018 compared to $\$ 4.6$ million and $\$ 3.1$ million for the years ended December 31, 2017 and 2016, respectively.

Average interest bearing deposits increased $\$ 93.8$ million, or $11.3 \%$, to $\$ 922.9$ million for the year ended December 31 , 2018 compared to $\$ 829.1$ million for the year ended December 31, 2017. The average cost of deposits increased to $0.96 \%$ during the year ended December 31, 2018 compared to $0.55 \%$ for the year ended December 31, 2017.

Average interest bearing deposits increased $\$ 48.6$ million, or $6.2 \%$, to $\$ 829.1$ million for the year ended December 31 , 2017 compared to $\$ 780.5$ million for the year ended December 31, 2016. The average cost of deposits increased to $0.55 \%$ during the year ended December 31, 2017 compared to $0.39 \%$ for the year ended December 31, 2016.

Interest expense on borrowings was $\$ 4.3$ million for year ended December 31, 2018 compared to $\$ 3.5$ million and $\$ 2.6$ million for the years ended December 31, 2017 and 2016, respectively. Average borrowings were $\$ 171.0$ million for the year ended December 31,2018 compared to $\$ 177.4$ million and $\$ 153.2$ million for the years ended December 31, 2017 and 2016, respectively. See the Liquidity Management section for further discussion.

Non-interest income for the years ended December 31, 2018, 2017, and 2016 was as follows:

| (In thousands) |  |  |  | SChange |  |  |  | \% Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 | 2017 | 2016 | '18-'17 |  | '17-'16 |  | '18-'17 | '17-'16 |
| Non-interest Income |  |  |  |  |  |  |  |  |  |
| Service charges and other fees | \$ 3,736 | \$ 3,437 | \$ 3,400 | \$ | 299 | \$ | 37 | 8.7 \% | 1.1 \% |
| Bank card income and fees | 2,754 | 2,614 | 2,547 |  | 140 |  | 67 | 5.4 | 2.6 |
| Trust department income. | 1,166 | 1,137 | 952 |  | 29 |  | 185 | 2.6 | 19.4 |
| Real estate servicing fees, net | 794 | 740 | 325 |  | 54 |  | 415 | 7.3 | 127.7 |
| Gain on sales of mortgage loans, net | 721 | 770 | 851 |  | (49) |  | (81) | (6.4) | (9.5) |
| Other | 170 | 252 | 240 |  | (82) |  | 12 | (32.5) | 5.0 |
| Total non-interest income . . . . . . . . . . . . . . . . . . . . . . | \$ 9,341 | \$ 8,950 | \$ 8,315 | \$ | 391 | \$ | 635 | 4.4 \% | 7.6 \% |
| Non-interest income as a \% of total revenue *. . . . . . . . | 17.3 \% | 17.3 \% | 17.1 |  |  |  |  |  |  |

* Total revenue is calculated as net interest income plus non-interest income.

Total non-interest income increased $\$ 391,000$, or $4.4 \%$, to $\$ 9.3$ million for the year ended December 31, 2018 compared to the year ended December 31, 2017, and increased $\$ 635,000$, or $7.6 \%$, to $\$ 9.0$ million for the year ended December 31, 2017 compared to the year ended December 31, 2016.

Service charges and other fees increased $\$ 299,000$, or $8.7 \%$, to $\$ 3.7$ million for the year ended December 31, 2018 compared to the year ended December 31, 2017, and increased $\$ 37,000$, or $1.1 \%$ to $\$ 3.4$ million for the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase for the year 2018 over the years ended 2017 and 2016 was primarily due to reduced waived service charges and increases in fees and ATM income resulting from deposit growth.

Bank card income and fees increased $\$ 140,000$, or $5.4 \%$, to $\$ 2.8$ million for the year ended December 31, 2018 compared to the year ended December 31, 2017, and increased $\$ 67,000$, or $2.6 \%$ to $\$ 2.6$ million for the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase in all years presented was mainly the result of growth in debit card fees as a result of a higher volume of transactions year over year.

Trust department income increased $\$ 29,000$, or $2.6 \%$, to $\$ 1.2$ million for the year ended December 31, 2018 compared to the year ended December 31, 2017, and increased $\$ 185,000$, or $19.4 \%$ to $\$ 1.1$ million for the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase year over year was primarily due to new trust customer relationships.

Real estate servicing fees, net of the change in valuation of mortgage serving rights increased $\$ 54,000$, or $7.3 \%$, to $\$ 794,000$ for the year ended December 31, 2018 compared to the year ended December 31, 2017, and increased $\$ 415,000$, or $127.7 \%$, to $\$ 740,000$ for the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase in the years 2018 and 2017 over the prior years presented was primarily due to higher MSR valuations resulting from slower prepayment speeds in a higher rate environment.

Mortgage loan servicing fees earned on loans sold were $\$ 821,000$ for the year ended December 31, 2018 compared to $\$ 833,000$ and $\$ 854,000$ for the years ended 2017 and 2016, respectively. The Company was servicing $\$ 279.9$ million of mortgage loans at December 31,2018 compared to $\$ 285.8$ million and $\$ 294.4$ million at December 31, 2017 and 2016, respectively.

Gain on sales of mortgage loans decreased $\$ 49,000$, or $6.4 \%$, to $\$ 721,000$ for the year ended December 31, 2018 compared to the year ended December 31, 2017, and decreased $\$ 81,000$, or $9.5 \%$, to $\$ 770,000$ for the year ended December 31, 2017 compared to the year ended December 31, 2016. The Company sold loans of $\$ 37.0$ million for the year ended December 31, 2018 compared to $\$ 33.8$ million and $\$ 37.9$ million for the years ended December 31, 2017 and 2016, respectively. Although the volume of loans sold in 2018 increased from 2017, the marginal price of the 2018 volume was lower than 2017 leading to reduced income.

Other income decreased $\$ 82,000$, or $32.5 \%$, to $\$ 170,000$ for the year ended December 31, 2018 compared to the year ended December 31, 2017 , and increased $\$ 12,000$, or $5.0 \%$ to $\$ 252,000$ for the year ended December 31, 2017 compared to the year ended December 31, 2016. The variances between the year ended 2018 over 2017 and for the year ended 2017 over 2016 were primarily due to changes in brokerage income. During 2018, the Company transitioned into a new relationship with a financial services provider causing a temporary disruption in brokerage services.

| (in thousands) | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment securities gains, net |  |  |  |  |  |  |
| Available for sale securities: |  |  |  |  |  |  |
| Gains realized on sales. | \$ | 253 | \$ | 38 | \$ | 623 |
| Losses realized on sales |  | - |  | (33) |  | (21) |
| Other-than-temporary impairment recognized. |  | - |  | - |  | - |
| Other investment securities: |  |  |  |  |  |  |
| Fair value adjustments, net |  | 2 |  | - |  | - |
| Investment securities gains, net | \$ | 255 | \$ | 5 | \$ | 602 |

During the year ended December 31, 2018, the Company received $\$ 77.2$ million from proceeds from a series of short term sales of U.S. Treasury securities purchased with repurchase agreements and recognized gains of $\$ 253,000$ in order to generate capital gains to offset capital losses that were to expire during 2018 and 2019.

During the year ended December 31, 2017, the Company received $\$ 11.7$ million from proceeds on sales of available-for-sale debt securities and recognized gains of $\$ 5,000$, compared to $\$ 60.7$ million from proceeds on sales of available-for-sale debt securities and recognized net gains of $\$ 602,000$ during the year ended December 31, 2016. These transactions were the result of bond sales and purchases to replace several smaller holdings with fewer, larger investments without materially changing the duration or yield of the investment portfolio.

## Non-interest expense for the years ended December 31, 2018, 2017, and 2016 was as follows:

|  |  |  |  | \$Change |  | \% Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (In thousands) | 2018 | 2017 | 2016 | '18-'17 | '17-'16 | '18-'17 | '17-'16 |
| Non-interest Expense |  |  |  |  |  |  |  |
| Salaries | \$ 17,109 | \$ 16,227 | \$ 15,623 | \$ 882 | \$ 604 | 5.4 \% | 3.9 \% |
| Employee benefits | 5,995 | 5,492 | 5,179 | 503 | 313 | 9.2 | 6.0 |
| Occupancy expense, net. | 2,957 | 2,782 | 2,751 | 175 | 31 | 6.3 | 1.1 |
| Furniture and equipment expense | 3,001 | 2,683 | 1,783 | 318 | 900 | 11.9 | 50.5 |
| Processing expense, network and bank card expense | 3,484 | 3,643 | 3,309 | (159) | 334 | (4.4) | 10.1 |
| Legal, examination, and professional fees | 1,223 | 1,308 | 1,301 | (85) | 7 | (6.5) | 0.5 |
| FDIC insurance assessment. | 612 | 478 | 567 | 134 | (89) | 28.0 | (15.7) |
| Advertising and promotion | 1,233 | 1,255 | 1,083 | (22) | 172 | (1.8) | 15.9 |
| Postage, printing, and supplies | 996 | 925 | 1,018 | 71 | (93) | 7.7 | (9.1) |
| Real estate foreclosure expense (gains), net. | 156 | 402 | 370 | (246) | 32 | (61.2) | 8.6 |
| Other . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 3,566 | 3,607 | 3,823 | (41) | (216) | (1.1) | (5.7) |
| Total non-interest expense . . . . . . . . . . . . . . . . . . | \$ 40,332 | \$ 38,802 | \$ 36,807 | \$ 1,530 | \$ 1,995 | 3.9 \% | 5.4 \% |
| Efficiency ratio*. . . . . . . . . . . . . . . . . . . . . . . . . . . | 74.8 \% | 74.8 \% | 75.6 \% |  |  |  |  |
| Number of full-time equivalent employees . . . . . . . . | 288 | 333 | 326 |  |  |  |  |

* Efficiency ratio is calculated as non-interest expense as a percentage of total revenue. Total revenue includes net interest income and non-interest income.

Total non-interest expense increased $\$ 1.5$ million, or $3.9 \%$, to $\$ 40.3$ million for the year ended December 31, 2018 compared to the year ended December 31, 2017, and increased $\$ 2.0$ million, or $5.4 \%$, to $\$ 38.8$ million for the year ended December 31, 2017 compared to the year ended December 31, 2016.

Salaries increased $\$ 882,000$, or $5.4 \%$, to $\$ 17.1$ million for the year ended December 31, 2018 compared to the year ended December 31 , 2017, and increased $\$ 604,000$, or $3.9 \%$, to $\$ 16.2$ million for the year ended December 31, 2017 compared to the year ended December 31 , 2016. The increase for the year ended 2018 over 2017 was primarily due to a bonus that was paid in February 2018 to all eligible fulltime and part-time employees as a result of the expected tax savings from the Tax Act, and $3.0 \%$ average cost of living increases paid in January
2018. The increase for the year ended 2017 over 2016 was primarily due to cost of living, merit salary increases, and a decrease in deferred loan costs.

Employee benefits increased $\$ 503,000$, or $9.2 \%$, to $\$ 6.0$ million for the year ended December 31, 2018 compared to the year ended December 31, 2017, and increased $\$ 313,000$, or $6.0 \%$, to $\$ 5.5$ million for the year ended December 31, 2017 compared to the year ended December 31, 2016. The increase in the years presented was primarily due to an increase in pension expense due to lower assumed discount rate and increased medical plan premiums effective July 1 of each year.

Furniture and equipment expense increased $\$ 318,000$, or $11.9 \%$, to $\$ 3.0$ million for the year ended December 31, 2018 compared to the year ended December 31, 2017, and increased $\$ 900,000,50.5 \%$, to $\$ 2.7$ million for the year ended December 31, 2017 compared to the year ended December 31, 2016. Beginning December 2016, the Company began upgrading its data processing infrastructure to a hosted network environment. The process included changes in maintenance agreements, service providers, and equipment.

Processing, network, and bank card expense decreased $\$ 159,000$, or $4.4 \%$, to $\$ 3.5$ million for the year ended December 31, 2018 compared to the year ended December 31, 2017, and increased $\$ 334,000$, or $10.1 \%$, to $\$ 3.6$ million for the year ended December 31,2017 compared to the year ended December 31, 2016. The decrease in 2018 over 2017 was due to additional one-time costs associated with a corporate wide network upgrade and changes in processing service providers during 2017. This was partially offset by increased debit card processing expense during 2018. The increase in 2017 over 2016 was primarily due to a corporate wide network upgrade and changes in processing service providers.

FDIC insurance assessment increased $\$ 134,000$, or $28.0 \%$, to $\$ 612,000$ for the year ended December 31, 2018 compared to December 31 , 2017 , and decreased $\$ 89,000$, or $15.7 \%$, to $\$ 478,000$ for the year ended December 31,2017 compared to the year ended December 31 , 2016. The increase in 2018 over 2017 was primarily due to an increase in the Company's total assessment base.

Advertising and promotion expense decreased $\$ 22,000$, or $1.8 \%$, to $\$ 1.2$ million for the year ended December 31,2018 compared to the year ended December 31, 2017, and increased $\$ 172,000$, or $15.9 \%$, to $\$ 1.3$ million for the year ended December 31, 2017 compared to the year ended December 31, 2016. The decrease in 2018 over 2017 was primarily due to during 2017, the Company advertised and introduced new products and services, such as interactive teller machines, and a new branch in the process of opening in the Columbia market.

Real estate foreclosure expense (gains), net decreased $\$ 246,000$, or $61.2 \%$, to $\$ 156,000$ for the year ended December 31, 2018 compared to the year ended December 31, 2017, and increased $\$ 32,000$, or $8.6 \%$, to $\$ 402,000$ for the year ended December 31,2017 compared to the year ended December 31, 2016.

Net losses recognized on other real estate owned were $\$ 12,000$ and $\$ 232,000$ for the years ended December 31, 2018 and 2017, respectively, compared to a net gain of $\$ 21,000$ for the year ended December 31, 2016. Expenses to maintain foreclosed properties were $\$ 144,000$ for the year ended December 31, 2018, compared to $\$ 170,000$ and $\$ 391,000$ for the years ended December 31, 2017 and 2016, respectively.

## Income taxes

Income taxes as a percentage of earnings before income taxes as reported in the consolidated financial statements were $13.5 \%$ for the year ended December 31, 2018 compared to $69.8 \%$ and $34.0 \%$ for the years ended December 31, 2017 and 2016, respectively. As further described below, the decrease in tax rate for the comparative years is primarily due to a decrease in the federal corporate tax rate, the release of the valuation allowance related to capital losses as a result of the Company's tax planning initiatives, a pension contribution made during the second quarter of 2018 that was attributable to the 2017 plan year, and the Company's additional tax planning initiatives.

The federal corporate income tax rate declined from $34 \%$ to $21 \%$ effective January 1, 2018 as a result of the Tax Cuts and Jobs Act (Tax Act). The Company's tax rate is lower than the federal statutory rate primarily as a result of tax-exempt income, the release of the valuation allowance related to capital loss carryforwards, a pension contribution made during the second quarter of 2018 that was attributable to the 2017 plan year, and the Company's additional tax planning initiatives. The provisional adjustments recorded in the fourth quarter of 2017 related to the enactment of the Tax Act were finalized during the third quarter of 2018 with the filing of the Company's 2017 tax return, within the one-year measurement period provided under Staff Accounting Bulletin No. 118 in regards to the application of FASB's ASC Topic 740, Income Taxes.

## Lending and Credit Management

Interest earned on the loan portfolio is a primary source of interest income for the Company. Net loans represented $76.6 \%$ of total assets as of December 31, 2018 compared to $74.0 \%$ as of December 31, 2017.

Lending activities are conducted pursuant to an established loan policy approved by the Bank's Board of Directors. The Bank's credit review process is overseen by regional loan committees with established loan approval limits. In addition, a senior loan committee reviews all credit relationships in aggregate over an established dollar amount. The senior loan committee meets weekly and is comprised of senior managers of the Bank.

A summary of loans, by major class within the Company's loan portfolio as of the dates indicated is as follows:

| (In thousands) | 2018 | 2017 | 2016 | 2015 | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Commercial, financial, and agricultural | \$ 207,720 | \$ 192,238 | \$ 182,881 | \$ 149,091 | \$ 154,834 |
| Real estate construction - residential | 28,610 | 26,492 | 18,907 | 16,895 | 18,103 |
| Real estate construction - commercial | 106,784 | 98,340 | 55,653 | 33,943 | 48,822 |
| Real estate mortgage - residential | 241,517 | 246,754 | 259,900 | 256,086 | 247,117 |
| Real estate mortgage - commercial. | 529,536 | 472,455 | 426,470 | 385,869 | 372,321 |
| Installment and other consumer | 32,460 | 32,153 | 30,218 | 23,196 | 20,016 |
| Total loans . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 1,146,627 | \$ 1,068,432 | \$ 974,029 | \$ 865,080 | \$861,213 |
| Percent of categories to total loans: |  |  |  |  |  |
| Commercial, financial, and agricultural | 18.1 \% | 18.0 \% | 18.8 \% | 17.2 \% | 18.0 \% |
| Real estate construction - residential | 2.5 | 2.5 | 1.9 | 2.0 | 2.1 |
| Real estate construction - commercial | 9.3 | 9.2 | 5.7 | 3.9 | 5.7 |
| Real estate mortgage - residential. | 21.1 | 23.1 | 26.7 | 29.6 | 28.7 |
| Real estate mortgage - commercial | 46.2 | 44.2 | 43.8 | 44.6 | 43.2 |
| Installment and other consumer . . . . . . . . . . . . . . . . . . . . . . | 2.8 | 3.0 | 3.1 | 2.7 | 2.3 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 100.0 \% | 100.0 \% | 100.0 \% | 100.0 \% | 100.0 \% |

The Company extends credit to its local community market through traditional real estate mortgage products. The Company does not participate in extending credit to sub-prime residential real estate markets. The Company does not lend funds for the type of transactions defined as "highly leveraged" by bank regulatory authorities or for foreign loans. Additionally, the Company does not have any concentrations of loans exceeding $10 \%$ of total loans that are not otherwise disclosed in the loan portfolio composition table. The Company does not have any interest-earning assets that would have been included in nonaccrual, past due, or restructured loans if such assets were loans.

The contractual maturities of loan categories at December 31, 2018, and the composition of those loans between fixed rate and floating rate loans are as follows:


The Company generally does not retain long-term fixed rate residential mortgage loans in its portfolio. Fixed rate loans conforming to standards required by the secondary market are offered to qualified borrowers, but are not funded until the Company has a non-recourse
purchase commitment from the secondary market at a predetermined price. For the year ended December 31, 2018, the Company sold approximately $\$ 37.0$ million of loans to investors compared to $\$ 33.8$ million and $\$ 37.9$ million for the years ended December 31 , 2017 and 2016, respectively. At December 31, 2018, the Company was servicing approximately $\$ 279.9$ million of loans sold to the secondary market compared to $\$ 285.5$ million at December 31, 2017, and $\$ 294.4$ million at December 31, 2016.

## Risk Elements of the Loan Portfolio

Management, the senior loan committee, and internal loan review, formally review all loans in excess of certain dollar amounts (periodically established) at least annually. Loans in excess of $\$ 2.0$ million in aggregate and all adversely classified credits identified by management are reviewed by the senior loan committee. In addition, all other loans are reviewed on a risk weighted selection process. The senior loan committee reviews and reports to the board of directors, on a monthly basis, past due, classified, and watch list loans in order to classify or reclassify loans as loans requiring attention, substandard, doubtful, or loss. During this review, management also determines which loans should be considered impaired. Management follows the guidance provided in the FASB's ASC Topic 310-1035 in identifying and measuring loan impairment. If management determines that it is probable that all amounts due on a loan will not be collected under the original terms of the loan agreement, the loan is considered to be impaired. These loans are evaluated individually for impairment, and in conjunction with current economic conditions and loss experience, specific reserves are estimated as further discussed below. Loans not individually evaluated are aggregated and reserves are recorded using a consistent methodology that considers historical loan loss experience by loan type, delinquencies, current economic conditions, loan risk ratings and industry concentration. Management believes, but there can be no assurance, that these procedures keep management informed of potential problem loans. Based upon these procedures, both the allowance and provision for loan losses are adjusted to maintain the allowance at a level considered necessary by management to provide for probable losses inherent in the loan portfolio.

## Nonperforming Assets

The following table summarizes nonperforming assets at the dates indicated:

(a) Non-performing loans include loans 90 days past due and accruing, nonaccrual loans, and non-performing TDRs included in nonaccrual loans.
(b) Non-performing assets include non-performing loans and other real estate owned and repossessed assets.
(c) Loan totals do not include loans held for sale.

Total non-performing assets were $\$ 19.3$ million, or $1.68 \%$ of total loans, at December 31, 2018 compared to $\$ 19.2$ million, or $1.80 \%$ of total loans, at December 31, 2017. Non-accrual loans included $\$ 2.0$ million and $\$ 1.7$ million of loans classified as TDRs at December 31, 2018 and 2017, respectively.

As of December 31, 2018, approximately $\$ 5.2$ million compared to $\$ 8.8$ million at December 31, 2017, of loans classified as substandard, which include performing TDRs, and are not included in the nonperforming asset table, were identified as potential problem loans having more than normal risk which raised doubts as to the ability of the borrower to comply with present loan repayment terms. Management believes the general allowance was sufficient to cover the risks and probable losses related to such loans at December 31, 2018 and December 31, 2017, respectively.

Total non-accrual loans at December 31, 2018 decreased $\$ 258,000$, or $5.0 \%$, to $\$ 5.4$ million compared to $\$ 5.7$ million at December 31 , 2017. The decrease in non-accrual loans primarily consisted of decreases in commercial, financial, and agricultural loans and real estate mortgage commercial loans, partially offset by an increase in real estate mortgage residential loans.

Loans past due 90 days and still accruing interest at December 31, 2018, were $\$ 162,000$ compared to $\$ 328,000$ at December 31, 2017. Other real estate owned and repossessed assets at December 31, 2018 were $\$ 13.7$ million compared to $\$ 13.2$ million at December 31, 2017. During the year ended December 31, 2018, $\$ 628,000$ of non-accrual loans, net of charge-offs taken, moved to other real estate owned and repossessed assets compared to $\$ 374,000$ for the year ended December 31, 2017.

The following table summarizes the Company's TDRs at the dates indicated:

|  | December 31, 2018 |  |  |  |  | December 31, 2017 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (In thousands) | Number of contracts | Recorded Investment |  | Specific Reserves |  | Number of contracts | Recorded Investment |  | Specific Reserves |  |
| Performing TDRs |  |  |  |  |  |  |  |  |  |  |
| Commercial, financial and agricultural | 6 | \$ | 570 | \$ | 174 | 6 | \$ | 500 | \$ | 20 |
| Real estate mortgage - residential . | 9 |  | 2,073 |  | 72 | 11 |  | 3,116 |  | 236 |
| Real estate mortgage - commercial | 2 |  | 377 |  | 8 | 2 |  | 1,068 |  | 109 |
| Installment and other consumer | 3 |  | 44 |  | 4 | - |  | - |  | - |
| Total performing TDRs. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 20 | \$ | 3,064 | \$ | 258 | 19 | \$ | 4,684 | \$ | 365 |
| Non-performing TDRs |  |  |  |  |  |  |  |  |  |  |
| Commercial, financial and agricultural | 5 | \$ | 1,042 | \$ | 94 | 4 | \$ | 838 | \$ | 41 |
| Real estate mortgage - residential. | 5 |  | 867 |  | 182 | 4 |  | 290 |  | 61 |
| Real estate mortgage - commercial. | - |  | - |  | - | 4 |  | 589 |  | 110 |
| Installment and other consumer . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2 |  | 72 |  | 9 | - |  | - |  | - |
| Total non-performing TDRs. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 12 | \$ | 1,981 | \$ | 285 | 12 | \$ | 1,717 | \$ | 212 |
| Total TDRs . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 32 | \$ | 5,045 | \$ | 543 | 31 | \$ | 6,401 | \$ | 577 |

At December 31, 2018, loans classified as TDRs totaled $\$ 5.0$ million, with $\$ 543,000$ of specific reserves, of which $\$ 2.0$ million were classified as non-performing TDRs and $\$ 3.0$ million were classified as performing TDRs. This is compared to $\$ 6.4$ million of loans classified as TDRs, with $\$ 577,000$ of specific reserves, of which $\$ 1.7$ million were classified as non-performing TDRs and $\$ 4.7$ million were classified as performing TDRs at December 31, 2017. Both performing and non-performing TDRs are considered impaired loans. When an individual loan is determined to be a TDR, the amount of impairment is based upon the present value of expected future cash flows discounted at the loan's effective interest rate, or the fair value of the underlying collateral less applicable selling costs if the loan is collateral dependent. The net decrease in total TDRs from December 31, 2017 to December 31, 2018 was primarily due to approximately $\$ 2.3$ million of payments received, partially offset by $\$ 916,000$ of new loans designated as TDRs during the year ended December 31, 2018.

## Allowance for Loan Losses and Provision

## Allowance for Loan Losses

The following table is a summary of the allocation of the allowance for loan losses:

| (In thousands) |  | 2018 |  | 2017 |  | 2016 |  | 2015 |  | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Allocation of allowance for loan losses at end of period: |  |  |  |  |  |  |  |  |  |  |
| Commercial, financial, and agricultural. | \$ | 3,237 | \$ | 3,325 | \$ | 2,753 | \$ | 2,153 | \$ | 1,779 |
| Real estate construction - residential |  | 140 |  | 170 |  | 108 |  | 59 |  | 171 |
| Real estate construction - commercial |  | 757 |  | 807 |  | 413 |  | 644 |  | 466 |
| Real estate mortgage - residential. |  | 2,071 |  | 1,689 |  | 2,385 |  | 2,439 |  | 2,527 |
| Real estate mortgage - commercial |  | 4,914 |  | 4,437 |  | 3,793 |  | 2,935 |  | 3,846 |
| Installment and other consumer |  | 334 |  | 345 |  | 274 |  | 273 |  | 270 |
| Unallocated . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 199 |  | 79 |  | 160 |  | 101 |  | 40 |
| Total....... | \$ | 11,652 | \$ | 10,852 | \$ | 9,886 | \$ | 8,604 | \$ | 9,099 |

The allowance for loan losses was $\$ 11.7$ million, or $1.02 \%$, of loans outstanding at December 31, 2018 compared to $\$ 10.9$ million, or $1.02 \%$, of loans outstanding at December 31, 2017. The ratio of the allowance for loan losses to non-performing loans was $208.97 \%$ at December 31, 2018, compared to $180.87 \%$ at December 31, 2017.

The following table is a summary of the general and specific allocations of the allowance for loan losses:

| (In thousands) | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 7}$ |  | $\mathbf{2 0 1 6}$ |  | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 4}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Allocation of allowance for loan losses: |  |  |  |  |  |  |  |

The specific reserve component applies to loans evaluated individually for impairment. The net carrying value of impaired loans is generally based on the fair values of collateral obtained through independent appraisals and/or internal evaluations, or by discounting the total expected future cash flows. Once the impairment amount is calculated, a specific reserve allocation is recorded. At December 31, 2018, $\$ 1.2$ million of the Company's allowance for loan losses was allocated to impaired loans totaling approximately $\$ 8.5$ million compared to $\$ 1.3$ million of the Company's allowance for loan losses allocated to impaired loans totaling approximately $\$ 10.4$ million at December 31, 2017. Management determined that $\$ 2.1$ million, or $25 \%$, of total impaired loans required no reserve allocation at December 31, 2018 compared to $\$ 2.4$ million, or $23 \%$, at December 31,2017 primarily due to adequate collateral values, acceptable payment history and adequate cash flow ability.

The incurred loss component of the general reserve, or loans collectively evaluated for impairment, is determined by applying loss rates to pools of loans by loan type. Loans not individually evaluated are aggregated by risk characteristics and reserves are recorded using a consistent methodology that considers historical loan loss experience by loan type. The Company believes that the five-year look-back period provides a representative historical loss period in the current economic environment. These historical loss rates for each risk group are used as the starting point to determine loss rates for measurement purposes. The historical loan loss rates are multiplied by loss emergence periods (LEP) which represent the estimated time period between a borrower first experiencing financial difficulty and the recognition of a loss.

The Company's methodology includes qualitative risk factors that allow management to adjust its estimates of losses based on the most recent information available and to address other limitations in the quantitative component that is based on historical loss rates. Such risk factors are generally reviewed and updated quarterly, as appropriate, and are adjusted to reflect changes in national and local economic conditions and developments, the nature, volume and terms of loans in the portfolio, including changes in volume and severity of past due loans, the volume of nonaccrual loans, and the volume and severity of adversely classified or graded loans, loan concentrations, assessment of trends in collateral values, assessment of changes in the quality of the Company's internal loan review department, and changes in lending policies and procedures, including underwriting standards and collections, charge-off and recovery practices.

The specific and general reserve allocations represent management's best estimate of probable losses inherent in the loan portfolio at the evaluation date. Although the allowance for loan losses is comprised of specific and general allocations, the entire allowance is available to absorb any credit losses.

A $\$ 1.5$ million provision for loan losses was required for the year ended December 31, 2018 compared to $\$ 1.8$ million for the year ended December 31, 2017, and $\$ 1.4$ million for the year ended December 31, 2016. The decrease in 2018 over 2017 was primarily due to improved credit quality and economic conditions used in assessing the risk in the portfolio. The increase in 2017 over 2016 was primarily due to losses observed in the look-back period in addition to an increase in loans outstanding.

The following table summarizes loan loss experience for the years ended as indicated:

| (In thousands) | 2018 | 2017 |  | 2016 |  | 2015 |  | 2014 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analysis of allowance for loan losses: |  |  |  |  |  |  |  |  |  |
| Balance beginning of period | \$ 10,852 | \$ | 9,886 | \$ | 8,604 | \$ | 9,099 |  | 13,719 |
| Charge-offs: |  |  |  |  |  |  |  |  |  |
| Commercial, financial, and agricultural. | 484 |  | 649 |  | 389 |  | 1,131 |  | 1,285 |
| Real estate construction - residential | 48 |  | - |  | - |  | - |  | 349 |
| Real estate construction - commercial | 30 |  | - |  | 1 |  | 15 |  | 491 |
| Real estate mortgage - residential. | 186 |  | 219 |  | 495 |  | 379 |  | 408 |
| Real estate mortgage - commercial | 38 |  | 45 |  | 147 |  | 363 |  | 2,890 |
| Installment and other consumer | 255 |  | 268 |  | 258 |  | 302 |  | 405 |
| Total charge-offs. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,041 |  | 1,181 |  | 1,290 |  | 2,190 |  | 5,828 |
| Recoveries: |  |  |  |  |  |  |  |  |  |
| Commercial, financial, and agricultural. | 100 |  | 74 |  | 299 |  | 672 |  | 319 |
| Real estate construction - residential | 62 |  | 88 |  | - |  | 322 |  | 181 |
| Real estate construction - commercial | - |  | - |  | 502 |  | - |  | - |
| Real estate mortgage - residential. | 52 |  | 83 |  | 60 |  | 138 |  | 202 |
| Real estate mortgage - commercial | 58 |  | 32 |  | 140 |  | 165 |  | 320 |
| Installment and other consumer . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 94 |  | 105 |  | 146 |  | 148 |  | 186 |
| Total recoveries . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 366 |  | 382 |  | 1,147 |  | 1,445 |  | 1,208 |
| Net charge-offs | 675 |  | 799 |  | 143 |  | 745 |  | 4,620 |
| Provision for loan losses . . . . . . . | 1,475 |  | 1,765 |  | 1,425 |  | 250 |  | - |
| Balance end of period . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 11,652 | \$ | 10,852 | \$ | 9,886 | \$ | 8,604 | \$ | 9,099 |

## Net Loan Charge-offs

The Company's net loan charge-offs were $\$ 675,000$, or $0.06 \%$ of average loans, for the year ended December 31,2018 compared to net charge-offs of $\$ 799,000$, or $0.08 \%$ of average loans, for the year ended December 31,2017 , and $\$ 143,000$, or $0.02 \%$ of average loans for the year ended December 31, 2016.

## Investment Portfolio

The Company's investment portfolio consists of securities which are classified as available-for-sale, equity or other. The largest component, available for sale debt securities are carried at estimated fair value. Unrealized holding gains and losses from available-for-sale securities are excluded from earnings and reported, net of applicable taxes, as a separate component of stockholders' equity until realized.

The Company does not engage in trading activities and accordingly does not have any debt or equity securities classified as trading securities. Historically the Company's practice had been to purchase and hold debt instruments until maturity unless special circumstances exist. However, since the investment portfolio's major function is to provide liquidity and to balance the Company's interest rate sensitivity position, all debt securities are classified as available-for-sale.

At December 31, 2018, the investment portfolio classified as available-for-sale represented $14.7 \%$ of total consolidated assets. Future levels of investment securities can be expected to vary depending upon liquidity and interest sensitivity needs as well as other factors.

The following table presents the composition of the investment portfolio and related fair value by major category:

| (In thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| U.S. Treasury | \$ | 1,952 | \$ | 1,967 |
| U.S. government and federal agency obligations. |  | 9,966 |  | 12,073 |
| Government sponsored enterprises |  | 43,335 |  | 36,897 |
| Obligations of states and political subdivisions |  | 40,386 |  | 46,656 |
| Mortgaged-backed securities. |  | 118,192 |  | 128,949 |
| Other debt securities (a). |  | 3,000 |  | 3,000 |
| Bank issued trust preferred securities (a). |  | 1,374 |  | 1,486 |
| $\underline{\text { Total available for sale debt securities, at fair value }}$ | \$ | 218,205 | \$ | 231,028 |

(a) Certain hybrid instruments possessing characteristics typically associated with debt obligations were reclassified from other investment securities carried at cost to available for sale securities carried at fair value in the years presented.

As of December 31, 2018, the maturity of debt securities in the investment portfolio was as follows:

| (In thousands) | One Year Or Less |  | Over One Through Five Years |  | Over Five Through Ten Years |  | $\begin{gathered} \text { Over } \\ \text { Ten Years } \\ \hline \end{gathered}$ |  | Total |  | Weighted Average Yield |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasury | \$ | - | \$ | 1,952 | \$ | - | \$ | - | \$ | 1,952 | 2.15 \% |
| U.S. government and federal agency obligations. . |  | - |  | 5,101 |  | 4,865 |  | - |  | 9,966 | 2.27 |
| Government sponsored enterprises |  | 12,681 |  | 30,162 |  | 492 |  | - |  | 43,335 | 1.86 |
| States and political subdivisions (2) |  | 5,284 |  | 25,383 |  | 8,148 |  | 1,571 |  | 40,386 | 2.39 |
| Mortgage-backed securities (1) |  | 299 |  | 81,785 |  | 34,537 |  | 1,571 |  | 118,192 | 2.27 |
| Other debt securities |  | - |  | - |  | - |  | 3,000 |  | 3,000 | 6.00 |
| Bank issued trust preferred securities .......... |  | - |  | - |  | - |  | 1,374 |  | 1,374 | 5.09 |
| Total available-for-sale debt securities . . . . . . | \$ | 18,264 | \$ | 144,383 | \$ | 48,042 | \$ | 7,516 | \$ | 218,205 | 2.28 \% |
| Weighted average yield . . . . . . . . . . . . . . . . |  | 1.54 \% |  | 2.18 \% |  | 2.53 \% |  | 4.28 \% |  | 2.28 |  |

(1) Mortgage-backed securities have been included using historic repayment speeds. Repayment speeds were determined from actual portfolio experience during the twelve months ended December 31, 2018 calculated separately for each mortgage-backed security. These repayment speeds are not necessarily indicative of future repayment speeds and are subject to change based on changing mortgage interest rates.
(2) Rates on obligations of states and political subdivisions have been adjusted to fully taxable equivalent rates using the statutory federal income tax rate of $21 \%$.

At December 31, 2018, $\$ 20.9$ million of debt securities classified as available-for-sale in the table above had variable rate provisions with adjustment periods ranging from one week to twelve months.

## Other investment securities

Other investment securities include equity securities with readily determinable fair values and other investments securities that do not have readily determinable fair values. Investments in Federal Home Loan Bank (FHLB) stock, and Midwest Independent Bank (MIB) bankers bank stock, that do not have readily determinable fair values, are required for membership in those organizations.

| (In thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Federal Home Loan Bank of Des Moines stock | \$ | 5,512 | \$ | 6,390 |
| Midwest Independent Bank stock |  | 151 |  | 151 |
| Equity securities with readily determinable fair values |  | 12 |  | 10 |
| Total other investment securities. | \$ | 5,675 | \$ | 6,551 |

## Liquidity and Capital Resources

## Liquidity Management

The role of liquidity management is to ensure funds are available to meet depositors' withdrawal and borrowers' credit demands while at the same time maximizing profitability. This is accomplished by balancing changes in demand for funds with changes in the supply of those funds. Liquidity to meet the demands is provided by maturing assets, short-term liquid assets that can be converted to cash and the ability to attract funds from external sources, principally depositors. Due to the nature of services offered by the Company, management prefers to focus on transaction accounts and full service relationships with customers.

The Company's Asset/Liability Committee (ALCO), primarily made up of senior management, has direct oversight responsibility for the Company's liquidity position and profile. A combination of daily, weekly, and monthly reports provided to management detail the following: internal liquidity metrics, composition and level of the liquid asset portfolio, timing differences in short-term cash flow obligations, available pricing and market access to the financial markets for capital, and exposure to contingent draws on the Company's liquidity.

The Company has a number of sources of funds to meet liquidity needs on a daily basis. The Company's most liquid assets are comprised of available for sale investment securities, federal funds sold, and excess reserves held at the Federal Reserve Bank.

| (In thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Federal funds sold and other overnight interest-bearing deposits | \$ | 18,396 | \$ | 39,553 |
| Certificates of deposit in other banks. |  | 12,247 |  | 3,460 |
| Available-for-sale investment securities |  | 218,205 |  | 231,028 |
| Total. . | \$ | 248,848 | \$ | 274,041 |

Federal funds sold and resale agreements normally have overnight maturities and are used for general daily liquidity purposes. The fair value of the available for sale investment portfolio was $\$ 218.2$ million at December 31, 2018 and included an unrealized net loss of $\$ 4.4$ million. The portfolio includes projected maturities and mortgage-backed securities pay-downs of approximately $\$ 18.3$ million over the next twelve months, which offer resources to meet either new loan demand or reductions in the Company's deposit base.

The Company pledges portions of its investment securities portfolio to secure public fund deposits, federal funds purchase lines, securities sold under agreements to repurchase, borrowing capacity at the Federal Reserve Bank, and for other purposes required by law. The Company's unpledged securities in the available for sale portfolio totaled approximately $\$ 65.2$ million and $\$ 49.3$ million at December 31 , 2018 and 2017, respectively.

Total investment securities pledged for these purposes were as follows:

| (In thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Investment securities pledged for the purpose of securing: |  |  |  |  |
| Federal Reserve Bank borrowings | \$ | 9,397 | \$ | 9,570 |
| Federal funds purchased and securities sold under agreements to repurchase |  | 32,529 |  | 40,931 |
| Other deposits . . . . . . . . . . . |  | 111,090 |  | 131,197 |
| Total pledged, at fair value | \$ | 153,016 | \$ | 181,698 |

Liquidity is available from the Company's base of core customer deposits, defined as demand, interest checking, savings, money market deposit accounts, and time deposits less than $\$ 250,000$, less all brokered deposits under $\$ 250,000$. At December 31, 2018, such deposits totaled $\$ 1.1$ billion and represented $89.9 \%$ of the Company's total deposits. These core deposits are normally less volatile and are often tied to other products of the Company through long lasting relationships. Time deposits and certificates of deposit of $\$ 250,000$ and over totaled $\$ 113.4$ million at December 31, 2018. These accounts are normally considered more volatile and higher costing representing 10.1\% of total deposits at December 31, 2018.

| (In thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Core deposit base: |  |  |  |  |
| Non-interest bearing demand | \$ | 262,857 | \$ | 245,380 |
| Interest checking |  | 215,432 |  | 229,862 |
| Savings and money market |  | 378,484 |  | 345,593 |
| Other time deposits . . . |  | 211,715 |  | 230,309 |
| Total............... | \$ | 1,068,488 | \$ | 1,051,144 |

The total amount of certificates of deposit of $\$ 250,000$ and greater at December 31, 2018 and 2017 were $\$ 104.9$ million and $\$ 63.2$ million, respectively. The Company had brokered deposits totaling $\$ 39.8$ million and $\$ 9.8$ million at December 31, 2018 and 2017, respectively.

Other components of liquidity are the level of borrowings from third party sources and the availability of future credit. The Company's outside borrowings are comprised of securities sold under agreements to repurchase, Federal Home Loan Bank advances, and subordinated notes. Federal funds purchased are overnight borrowings obtained mainly from upstream correspondent banks with which the Company maintains approved credit lines. As of December 31, 2018, under agreements with these unaffiliated banks, the Bank may borrow up to $\$ 42.0$ million in federal funds on an unsecured basis and $\$ 16.4$ million on a secured basis. There were $\$ 8.0$ million in federal funds purchased outstanding at December 31, 2018. Securities sold under agreements to repurchase are generally borrowed overnight and are secured by a portion of the Company's investment portfolio. At December 31, 2018, there were $\$ 16.6$ million in repurchase agreements. The Company may periodically borrow additional short-term funds from the Federal Reserve Bank through the discount window; although no such borrowings were outstanding at December 31, 2018.

The Bank is a member of the Federal Home Loan Bank of Des Moines (FHLB). As a member of the FHLB, the Bank has access to credit products of the FHLB. As of December 31, 2018, the Bank had $\$ 95.1$ million in outstanding borrowings with the FHLB. In addition, the Company has $\$ 49.5$ million at December 31, 2018 in outstanding subordinated notes issued to wholly-owned grantor trusts, funded by preferred securities issued by the trusts.

Borrowings outstanding at December 31, 2018 and 2017 were as follows:

| (In thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Borrowings: |  |  |  |  |
| Federal funds purchased and securities sold under agreements to repurchase | \$ | 24,647 | \$ | 27,560 |
| Federal Home Loan Bank advances. |  | 95,126 |  | 121,352 |
| Subordinated notes |  | 49,486 |  | 49,486 |
| Other borrowings . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 27 |  | 30 |
| Total............................................................. . . | \$ | 169,286 | \$ | 198,428 |

The Company pledges certain assets, including loans and investment securities to the Federal Reserve Bank, FHLB, and other correspondent banks as security to establish lines of credit and borrow from these entities. Based on the type and value of collateral pledged, the Company may draw advances against this collateral.

The following table reflects the advance equivalent of the assets pledged, borrowings, and letters of credit outstanding, in addition to the estimated future funding capacity available to the Company.

| (In thousands) | 2018 |  |  |  |  |  | 2017 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FHLB |  | deral ve Bank | Federal Funds Purchased Lines |  | Total |  | FHLB |  | deral <br> ve Bank | Federal Funds Purchased Lines |  | Total |
| Advance equivalent | \$ 301,606 | \$ | 9,160 | \$ 57,235 | \$ | 368,001 | \$ | 294,081 | \$ | 9,364 | \$ 47,825 |  | 351,270 |
| Letters of credit | $(80,000)$ |  | - |  |  | $(80,000)$ |  | $(70,000)$ |  | - | - |  | $(70,000)$ |
| Advances outstanding . . . . . . | $(95,126)$ |  | - | $(8,000)$ |  | $(103,126)$ |  | $(121,352)$ |  | - | - |  | $(121,352)$ |
| Total available . . . . . . . . . | \$ 126,480 | \$ | 9,160 | \$ 49,235 | \$ | 184,875 | \$ | 102,729 | \$ | 9,364 | \$ 47,825 | \$ | 159,918 |

At December 31, 2018, loans of $\$ 530.1$ million were pledged to the Federal Home Loan Bank as collateral for borrowings and letters of credit. At December 31, 2018, investments with a market value of $\$ 18.8$ million were pledged to secure federal funds purchase lines and borrowing capacity at the Federal Reserve Bank.

## Sources and Uses of Funds

Cash and cash equivalents were $\$ 42.1$ million at December 31, 2018 compared to $\$ 62.9$ million at December 31, 2017. The $\$ 20.8$ million decrease resulted from changes in the various cash flows produced by operating, investing, and financing activities of the Company, as shown in the accompanying consolidated statement of cash flows for the year ended December 31, 2018. Cash flow provided from operating activities consists mainly of net income adjusted for certain non-cash items. Operating activities provided cash flow of $\$ 16.3$ million for the year ended December 31, 2018.

Investing activities consisting mainly of purchases, sales and maturities of available for sale securities, and changes in the level of the loan portfolio, used total cash of $\$ 78.6$ million. The cash outflow primarily consisted of $\$ 103.1$ million purchases of investment securities, $\$ 79.3$ million increase in the loan portfolio, and $\$ 8.8$ million purchases of certificates of deposit in other banks, partially offset by $\$ 36.2$ million in proceeds from investment maturities, calls, and pay-downs, and $\$ 77.2$ million in proceeds from sales of investment securities.

Financing activities provided cash of $\$ 41.5$ million, resulting primarily from a $\$ 55.2$ million increase in interest-bearing transaction accounts and time deposits, and a $\$ 17.5$ million increase in demand deposits, partially offset by a $\$ 26.2$ net repayment of FHLB advances. Future short-term liquidity needs arising from daily operations are not expected to vary significantly during 2019.

In the normal course of business, the Company enters into certain forms of off-balance-sheet transactions, including unfunded loan commitments and letters of credit. These transactions are managed through the Company's various risk management processes. Management considers both on-balance sheet and off-balance-sheet transactions in its evaluation of the Company's liquidity. The Company had $\$ 352.0$ million in unused loan commitments and standby letters of credit as of December 31, 2018. Although the Company's current liquidity resources are adequate to fund this commitment level, the nature of these commitments is such that the likelihood of such a funding demand is very low.

The Company is a legal entity, separate and distinct from the Bank, which must provide its own liquidity to meet its operating needs. The Company's ongoing liquidity needs primarily include funding its operating expenses and paying cash dividends to its shareholders. The Company paid cash dividends to its common shareholders totaling approximately $\$ 2.0$ million and $\$ 1.5$ million for the years ended December 31, 2018 and 2017, respectively. A large portion of the Company's liquidity is obtained from the Bank in the form of dividends. The Bank declared and paid $\$ 5.0$ million and $\$ 2.6$ million in dividends to the Company during the years ended December 31, 2018 and 2017, respectively. At December 31, 2018 and 2017, the Company had cash and cash equivalents totaling $\$ 1.3$ million and $\$ 1.4$ million, respectively.

## Capital Management

The Company and the Bank are subject to various regulatory capital requirements administered by federal and state 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 Company's consolidated financial statements. Under capital adequacy guidelines, the Company and the Bank must meet specific capital guidelines that involve quantitative measures of assets, liabilities, and certain off-balance-sheet items as calculated under regulatory accounting practices. The capital amounts and classification of the Company and the Bank are subject to qualitative judgments by the regulators about components, risk-weightings, and other factors.

In July 2013, the federal banking agencies issued final rules to implement the Basel III regulatory capital reforms and changes required by the Dodd-Frank Act. The phase-in period for the Company began on January 1, 2015. The Federal Reserve System's (FRB) capital adequacy guidelines require that bank holding companies maintain a Common Equity Tier 1 risk-based capital ratio equal to at least $4.5 \%$ of its risk-weighted assets, a Tier 1 risk-based capital ratio equal to at least $6 \%$ of its risk-weighted assets and a total risk-based capital ratio equal to at least $8 \%$ of its risk-weighted assets. In addition, bank holding companies generally are required to maintain a Tier 1 leverage ratio of at least $4 \%$.

In addition, the final rules establish a common equity tier 1 capital conservation buffer of $2.5 \%$ of risk-weighted assets applicable to all banking organizations. Institutions that do not maintain the required capital buffer will become subject to progressively more stringent limitations on the percentage of earnings that can be paid out in dividends or used for stock repurchases and on the payment of discretionary bonuses to senior executive management. The capital conservation buffer requirement will be phased in over four years beginning in 2016.

The capital conservation buffer requirement effectively raises the minimum required risk-based capital ratios to 7\% Common Equity Tier 1 Capital, $8.5 \%$ Tier 1 Capital and $10.5 \%$ Total Capital on a fully phased-in basis.

Under the Basel III requirements, at December 31, 2018, the Company met all capital adequacy requirements and had regulatory capital ratios in excess of the levels established for well-capitalized institutions, as shown in the following table as of December 31, for the years indicated:


* effective January 1, 2015

Stock Dividend For the tenth consecutive year, on July 1, 2018, the Company distributed a four percent stock dividend to common shareholders of record at the close of business on June 15, 2018. For all periods presented, share information, including basic and diluted earnings per share, has been adjusted retroactively to reflect the stock dividend.

Repurchase Program The Company's share repurchase plan expired on September 8, 2018. As of December 31, 2018, the Company had repurchased a total of 95,709 shares of common stock pursuant to the plan at an average price of $\$ 17.90$ per share, including 8,668 shares of common stock repurchased pursuant to the plan during the year ended December 31, 2018 at an average price of $\$ 20.63$ per share.

## Commitments, Contractual Obligations, and Off-Balance-Sheet Arrangements

The required payments of time deposits and other borrowed money, not including interest, at December 31, 2018 are as follows:

|  | Payments due by Period |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (In thousands) | Total | Less than 1 Year | $\begin{gathered} 1-3 \\ \text { Years } \end{gathered}$ | 3-5 <br> Years | Over 5 Years |
| Time deposits | \$ 321,571 | \$ 198,609 | \$ 77,304 | \$ 45,658 | \$ |
| Federal Home Loan Bank advances and other borrowed money | 95,153 | 28,231 | 62,477 | 4,445 | - |
| Subordinated notes. . | 49,486 | - | - | - | 49,486 |

In the normal course of business, the Company is party to activities that contain credit, market and operational risk that are not reflected in whole or in part in the Company's consolidated financial statements. Such activities include traditional off-balance-sheet credit related financial instruments.

The Company provides customers with off-balance-sheet credit support through loan commitments and standby letters of credit. Summarized credit-related financial instruments, including both commitments to extend credit and letters of credit at December 31, 2018 are as follows:

|  | Amount of Commitment Expiration per Period |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (In thousands) | Total | Less than 1 Year | $\begin{gathered} \hline 1-3 \\ \text { Years } \end{gathered}$ | 3-5 <br> Years | Over 5 Years |
| Unused loan commitments | \$ 267,314 | \$ 196,465 | \$ 26,332 | \$ 11,369 | \$ 33,148 |
| Commitments to originate residential first and second mortgage loans. | 1,759 | 1,759 |  | - | - |
| Standby letters of credit. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 82,895 | 81,527 | 1,368 | - | - |
| Total.. | \$ 351,968 | \$ 279,751 | \$ 27,700 | \$ 11,369 | \$ 33,148 |

Since many of the unused commitments are expected to expire or be only partially used, the total amount of commitments in the preceding table does not necessarily represent future cash requirements.

## Quantitative and Qualitative Disclosures about Market Risk

## Asset/Liability and Interest Rate Risk

Management and the Board of Directors are responsible for managing interest rate risk and employing risk management policies that monitor and limit this exposure. Interest rate risk is measured using net interest income simulations and market value of portfolio equity analyses. These analyses use various assumptions, including the nature and timing of interest rate changes, yield curve shape, prepayments on loans and securities, deposit decay rates, pricing decisions on loans and deposits, and reinvestment/replacement of asset and liability cash flows.

The principal objective of the Company's asset and liability management function is to evaluate the interest rate risk within the balance sheet and pursue a controlled assumption of interest rate risk while maximizing earnings and preserving adequate levels of liquidity and capital. The asset and liability management function is under the guidance of the Asset Liability Committee from direction of the Board of Directors. The Asset Liability Committee meets monthly to review, among other things, the sensitivity of the Company's assets and liabilities to interest rate changes, local and national market conditions and rates. The Asset Liability Committee also reviews the liquidity, capital, deposit mix, loan mix and investment positions of the Company.

Instantaneous parallel rate shift scenarios are modeled and utilized to evaluate risk and establish exposure limits for acceptable changes in net interest margin. These scenarios, known as rate shocks, simulate an instantaneous change in interest rates and use various assumptions, including, but not limited to, prepayments on loans and securities, deposit decay rates, pricing decisions on loans and deposits, reinvestment and replacement of asset and liability cash flows.

Management analyzes the economic value of equity as a secondary measure of interest rate risk. This is a complementary measure to net interest income where the calculated value is the result of the market value of assets less the market value of liabilities. The economic value of equity is a longer term view of interest rate risk because it measures the present value of the future cash flows. The impact of changes in interest rates on this calculation is analyzed for the risk to our future earnings and is used in conjunction with the analyses on net interest income.

The table below illustrates the impact of an immediate and sustained 200 and 100 basis point increase and a 200 and 100 basis point decrease in interest rates on net interest income based on the interest rate risk model at December 31, 2018 and 2017.

|  | \% Change in projected net interest income |  |
| :---: | :---: | :---: |
| Hypothetical shift in interest rates | December 31, |  |
| (bps) | 2018 | 2017 |
| 200 | 0.26 \% | (3.14) \% |
| 100 | 1.17 \% | (2.05) \% |
| (100) | 3.39 \% | 1.58 \% |
| (200) | 4.19 \% | 0.46 \% |

The improvement in our interest rate risk exposure from December 31, 2017 to December 31, 2018 was primarily due to higher offering rates for repricing loans at December 31, 2018 and a decrease in short-term maturity borrowings from December 31, 2017.

Many assumptions are used to calculate the impact of interest rate fluctuations. Actual results may be significantly different than our projections due to several factors, including the timing and frequency of rate changes, market conditions and the shape of the yield curve. The computations of interest rate risk shown above do not include actions that management may undertake to manage the risks in response to anticipated changes in interest rates and actual results may also differ due to any actions taken in response to the changing rates.

## Effects of Inflation

The effects of inflation on financial institutions are different from the effects on other commercial enterprises since financial institutions make few significant capital or inventory expenditures, which are directly affected by changing prices. Because bank assets and liabilities are virtually all monetary in nature, inflation does not affect a financial institution as much as do changes in interest rates. The general level of inflation does underlie the general level of most interest rates, but interest rates do not increase at the rate of inflation as do prices of goods and services. Rather, interest rates react more to changes in the expected rate of inflation and to changes in monetary and fiscal policy.

Inflation does have an impact on the growth of total assets in the banking industry, often resulting in a need to increase capital at higher than normal rates to maintain an appropriate capital to asset ratio. In the opinion of management, inflation did not have a significant effect on the Company's operations for the year ended December 31, 2018.

## Impact of New Accounting Standards

Intangibles In August 2018, the FASB issued ASU 2018-15, Intangibles - Goodwill and Other - Internal-Use Software (Topic 350-40) Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract. This ASU aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). ASU 2018-15 is effective for annual reporting periods beginning after December 15, 2019 and is not expected to have a significant impact on the Company's consolidated financial statements.

Fair Value Measurement In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820) - Changes to the Disclosure Requirements for Fair Value Measurement. ASU 2018-13 removes the requirement to disclose the amount of and reasons for transfers between Level 1 and Level 2 fair value measurement methodologies, the policy for timing of transfers between levels and the valuation processes for Level 3 fair value measurements. It also adds a requirement to disclose changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period and the range and weighted average of significant unobservable inputs used to develop Level 3 measurements. For certain unobservable inputs, entities may disclose other quantitative information in lieu of the weighted average if the other quantitative information would be a more reasonable and rational method to reflect the distribution of unobservable inputs used to develop Level 3 fair value measurements. ASU 2018-13 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. The Company is currently evaluating the impact of the adoption on the Company's consolidated financial statements and disclosures.

Derivatives and Hedging The FASB issued guidance within ASU 2017-12, Targeted Improvements to Accounting for Hedging Activities (Topic 815) in August 2017. The amendments in ASU 2017-12 to Topic 815, Derivatives and Hedging, are intended to more closely align hedge accounting with companies' risk management strategies, simplify the application of hedge accounting, and increase transparency as to the scope and results of hedging programs. The guidance also amends the presentation and disclosure requirements and changes how companies assess effectiveness. Under the new guidance, public companies will have until the end of the first quarter in which a hedge is designated to perform an initial assessment of a hedge's effectiveness. After initial qualification, the new guidance permits a qualitative effectiveness assessment for certain hedges instead of a quantitative test if the company can reasonably support an expectation of high effectiveness throughout the term of the hedge. Additional disclosures include cumulative basis adjustments for fair value hedges and the effect of hedging on individual income statement line items. The amendments in this Update are effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted in any interim period after issuance of the Update. The ASU is not expected to have a significant effect on the Company's Consolidated Financial Statements.

Financial Instruments In June 2016, the FASB issued ASU 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments (CECL). The revised accounting guidance will remove all recognition thresholds and will require a company to recognize an allowance for credit losses for the difference between the amortized cost basis of a financial instrument and the amount of amortized cost that the company expects to collect over the instrument's contractual life. It also amends the credit loss measurement guidance for available-for-sale debt securities and beneficial interests in securitized financial assets. This new accounting guidance will be effective for interim and annual reporting periods beginning after December 15, 2019. While the Company generally expects to recognize a one-time cumulative effect adjustment to the allowance for loan losses as of the beginning of the first reporting period in which the new standard is effective, the Company has not determined the magnitude of any such one-time adjustment or the overall impact of the new guidance on the Company's consolidated financial statements. The Company has formed a committee and is continuing to evaluate the impact of the ASU's adoption on the Company's consolidated financial statements. Beginning in the first quarter of 2019 , the Company plans to run parallel credit risk models to continue evaluating the results.

Leases In February 2016, the FASB issued ASU 2016-02, Leases, in order to increase transparency and comparability by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The ASU primarily affects lessee accounting, which requires the lessee to recognize a right-of-use asset and a liability to make lease payments for those leases classified as operating leases under previous GAAP. For leases with a term of 12 months or less, an election by class of underlying asset not to recognize lease assets and lease liabilities is permitted. The ASU also provides additional guidance as to the definition of a lease, identification of lease components, and sale and leaseback transactions. The amendments in the ASU are effective for interim and annual periods beginning January 1, 2019. The Company's operating leases primarily relate to office space and bank branches.

The Company adopted ASU 2016-02 and related transition guidance on January 1, 2019 and elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allows the carryforward of the historical lease classification, the practical expedient related to land easements and the hindsight practical expedient to determine the reasonably certain lease term for existing leases. The Company made an accounting policy election to keep leases with an initial term of 12 months or less off of the balance sheet and recognize those lease payments in the Consolidated Statements of Income on a straight-line basis over the lease
term. The adoption of ASU 2016-02 and related transition guidance resulted in the recognition of additional net lease assets and liabilities of approximately $\$ 296,000$ and $\$ 296,000$, respectively, as of January 1, 2019. The standard will not materially affect our consolidated net earnings or regulatory capital ratios.

Callable Debt Securities In March 2017, the FASB issued ASU 2017-08, Receivables - Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities. This ASU shortens the amortization period for the premium on certain purchased callable debt securities to the earliest call date. The ASU does not impact securities held at a discount; the discount continues to be amortized to maturity. The guidance calls for a modified retrospective transition approach under which a cumulative-effect adjustment will be made to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. The ASU is effective for the Company on January 1, 2019. The adoption did not have an impact on the consolidated financial statements and related disclosures and no cumulative effect adjustment was required upon adoption.

## CONSOLIDATED FINANCIAL STATEMENTS

The following consolidated financial statements of the Company and report of the Company's independent auditors appear on the pages indicated.
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Report of Independent Registered Public Accounting Firm ..... 28
Consolidated Balance Sheets as of December 31, 2018 and 2017 ..... 29
Consolidated Statements of Income for each of the years ended December 31, 2018, 2017, and 2016 ..... 30
Consolidated Statements of Comprehensive Income for each of the years ended December 31, 2018, 2017, and 2016 ..... 31
Consolidated Statements of Stockholders' Equity for each of the years ended December 31, 2018, 2017, and 2016 ..... 32
Consolidated Statements of Cash Flows for each of the years ended December 31, 2018, 2017, and 2016 ..... 33
Notes to the Consolidated Financial Statements ..... 34

KPMG LLP
Suite 900
10 South Broadway
St. Louis, MO 63102-1761

## Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Hawthorn Bancshares, Inc.:

## Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Hawthorn Bancshares, Inc. and subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, stockholders' 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 March 14, 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.
KPMG LLP

We have served as the Company's auditor since 1993.
St. Louis, Missouri
March 14, 2019

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## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

## Consolidated Balance Sheets

(In thousands, except per share data)

|  | December 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
| ASSETS |  |  |  |  |
| Cash and due from banks. | \$ | 23,687 | \$ | 23,325 |
| Federal funds sold and other interest-bearing deposits |  | 18,396 |  | 39,553 |
| Cash and cash equivalents |  | 42,083 |  | 62,878 |
| Certificates of deposit in other banks |  | 12,247 |  | 3,460 |
| Available-for-sale debt securities, at fair value |  | 218,205 |  | 231,028 |
| Other investments. |  | 5,675 |  | 6,551 |
| Total investment securities |  | 223,880 |  | 237,579 |
| Loans. |  | 1,146,627 |  | 1,068,432 |
| Allowances for loan losses |  | $(11,652)$ |  | $(10,852)$ |
| Net loans |  | 1,134,975 |  | 1,057,580 |
| Premises and equipment - net |  | 34,894 |  | 34,811 |
| Mortgage servicing rights |  | 2,931 |  | 2,713 |
| Other real estate owned and repossessed assets - net |  | 13,691 |  | 13,182 |
| Accrued interest receivable |  | 6,162 |  | 5,627 |
| Cash surrender value - life insurance |  | 2,542 |  | 2,484 |
| Other assets. |  | 8,277 |  | 8,902 |
| Total assets . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 1,481,682 | \$ | 1,429,216 |
| LIABILITIES AND STOCKHOLDERS' EQUITY |  |  |  |  |
| Deposits |  |  |  |  |
| Non-interest bearing demand | \$ | 262,857 | \$ | 245,380 |
| Savings, interest checking and money market |  | 614,040 |  | 584,468 |
| Time deposits \$250,000 and over |  | 104,900 |  | 63,176 |
| Other time deposits . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 216,671 |  | 232,788 |
| Total deposits |  | 1,198,468 |  | 1,125,812 |
| Federal funds purchased and securities sold under agreements to repurchase. |  | 24,647 |  | 27,560 |
| Federal Home Loan Bank advances and other borrowings. |  | 95,153 |  | 121,382 |
| Subordinated notes. |  | 49,486 |  | 49,486 |
| Accrued interest payable |  | 1,035 |  | 554 |
| Other liabilities . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 13,479 |  | 13,051 |
| Total liabilities . . . . |  | 1,382,268 |  | 1,337,845 |
| Stockholders' equity: |  |  |  |  |
| Common stock, $\$ 1$ par value, authorized $15,000,000$ shares; issued $6,278,481$ and $6,046,907$ shares, respectively |  | 6,279 |  | 6,047 |
| Surplus |  | 50,173 |  | 45,442 |
| Retained earnings |  | 54,105 |  | 50,595 |
| Accumulated other comprehensive loss, net of tax |  | $(6,099)$ |  | $(5,662)$ |
| Treasury stock; 243,638 and 248,898 shares, at cost, respectively . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | $(5,044)$ |  | $(5,051)$ |
| Total stockholders' equity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 99,414 |  | 91,371 |
| Total liabilities and stockholders' equity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 1,481,682 | \$ | 1,429,216 |

See accompanying notes to the consolidated financial statements.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

## Consolidated Statements of Income

| (In thousands, except per share amounts) | Years Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2016 |  |
| INTEREST INCOME |  |  |  |  |  |  |
| Interest and fees on loans. | \$ | 52,151 | \$ | 46,596 | \$ | 41,854 |
| Interest on investment securities: |  |  |  |  |  |  |
| Taxable |  | 4,114 |  | 3,257 |  | 3,463 |
| Nontaxable |  | 597 |  | 657 |  | 521 |
| Federal funds sold, other interest-bearing deposits, and certificates of deposit in other banks |  | 699 |  | 267 |  | 80 |
| Dividends on other investments . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 218 |  | 158 |  | 92 |
| Total interest income . . . . . . . . . |  | 57,779 |  | 50,935 |  | 46,010 |
| INTEREST EXPENSE |  |  |  |  |  |  |
| Interest on deposits: |  |  |  |  |  |  |
| Savings, interest checking and money market. |  | 5,433 |  | 2,329 |  | 1,159 |
| Time deposits . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 3,404 |  | 2,224 |  | 1,907 |
| Total interest expense on deposits . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 8,837 |  | 4,553 |  | 3,066 |
| Interest on federal funds purchased and securities sold under agreements to repurchase. . . . . |  | 603 |  | 113 |  | 64 |
| Interest on Federal Home Loan Bank advances. |  | 1,517 |  | 1,590 |  | 1,038 |
| Interest on subordinated notes. |  | 2,229 |  | 1,751 |  | 1,495 |
| Total interest expense on borrowings . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 4,349 |  | 3,454 |  | 2,597 |
| Total interest expense |  | 13,186 |  | 8,007 |  | 5,663 |
| Net interest income. |  | 44,593 |  | 42,928 |  | 40,347 |
| Provision for loan losses . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 1,475 |  | 1,765 |  | 1,425 |
| Net interest income after provision for loan losses . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 43,118 |  | 41,163 |  | 38,922 |
| NON-INTEREST INCOME |  |  |  |  |  |  |
| Service charges and other fees |  | 3,736 |  | 3,437 |  | 3,400 |
| Bank card income and fees . . . |  | 2,754 |  | 2,614 |  | 2,547 |
| Trust department income. |  | 1,166 |  | 1,137 |  | 952 |
| Real estate servicing fees, net |  | 794 |  | 740 |  | 325 |
| Gain on sale of mortgage loans, net |  | 721 |  | 770 |  | 851 |
| Other. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 170 |  | 252 |  | 240 |
| Total non-interest income . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 9,341 |  | 8,950 |  | 8,315 |
| Investment securities gain, net . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 255 |  | 5 |  | 602 |
| NON-INTEREST EXPENSE |  |  |  |  |  |  |
| Salaries and employee benefits |  | 23,104 |  | 21,719 |  | 20,802 |
| Occupancy expense, net. . . . . |  | 2,957 |  | 2,782 |  | 2,751 |
| Furniture and equipment expense |  | 3,001 |  | 2,683 |  | 1,783 |
| Processing, network, and bank card expense |  | 3,484 |  | 3,643 |  | 3,309 |
| Legal, examination, and professional fees |  | 1,223 |  | 1,308 |  | 1,301 |
| FDIC insurance assessment. |  | 612 |  | 478 |  | 567 |
| Advertising and promotion |  | 1,233 |  | 1,255 |  | 1,083 |
| Postage, printing, and supplies |  | 996 |  | 925 |  | 1,018 |
| Other. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 3,722 |  | 4,009 |  | 4,193 |
| Total non-interest expense . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 40,332 |  | 38,802 |  | 36,807 |
| Income before income taxes |  | 12,382 |  | 11,316 |  | 11,032 |
| Income tax expense . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 1,668 |  | 7,902 |  | 3,750 |
| Net income.............................................................................. . . . | \$ | 10,714 | \$ | 3,414 | \$ | 7,282 |
| Basic earnings per share | \$ | 1.78 | \$ | 0.56 | \$ | 1.19 |
| Diluted earnings per share. . . | \$ | 1.78 | \$ | 0.56 | \$ | 1.19 |

See accompanying notes to the consolidated financial statements.

HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

## Consolidated Statements of Comprehensive Income

|  | Years Ended December 31, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (In thousands) | 2018 |  | 2017 |  | 2016 |  |
| Net income | \$ | 10,714 | \$ | 3,414 | \$ | 7,282 |
| Other comprehensive income, net of tax |  |  |  |  |  |  |
| Investment securities available-for-sale: |  |  |  |  |  |  |
| Unrealized loss on investment securities available-for-sale, net of tax |  | (955) |  | (23) |  | (972) |
| Adjustment for gain on sale of investment securities, net of tax |  | - |  | (3) |  | (373) |
| Defined benefit pension plans: |  |  |  |  |  |  |
| Net gain (loss) arising during the year, net of tax |  | 345 |  | (673) |  | (487) |
| Amortization of prior service cost included in net periodic pension cost, net of tax . . . . . . . |  | 173 |  | 56 |  | 49 |
| Total other comprehensive loss. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | (437) |  | (643) |  | $(1,783)$ |
| $\underline{\text { Total comprehensive income. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . }}$ | \$ | 10,277 | \$ | 2,771 | \$ | 5,499 |

See accompanying notes to the consolidated financial statements.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

## Consolidated Statements of Stockholders' Equity

| (In thousands) | $\begin{gathered} \text { Common } \\ \text { Stock } \end{gathered}$ | Surplus | Retained Earnings | AccumulatedOtherComprehensiveLoss |  | Treasury Stock | Total <br> Stock - <br> holders' <br> Equity |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance, December 31, 2015 . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 5,605 | \$ 38,549 | \$ 48,700 | \$ | $(2,018)$ | \$ $(3,550)$ | \$87,286 |
| Net income | - | - | 7,282 |  | - | - | 7,282 |
| Other comprehensive loss | - | - | - |  | $(1,783)$ | - | $(1,783)$ |
| Stock based compensation expense | - | 17 | - |  | - | - | 17 |
| Stock dividend | 217 | 2,932 | $(3,149)$ |  | - | - | - |
| Purchase of treasury stock | - | - | - |  | - | (623) | (623) |
| Cash dividends declared, common stock | - | - | $(1,162)$ |  | - | - | $(1,162)$ |
| Balance, December 31, 2016 | \$ 5,822 | \$ 41,498 | \$ 51,671 | \$ | $(3,801)$ | \$ $(4,173)$ | \$ 91,017 |
| Net income | - | - | 3,414 |  | - | - | 3,414 |
| Other comprehensive loss | - | - | - |  | (643) | - | (643) |
| Amounts reclassified from accumulated other comprehensive loss per ASU 2018-02. | - | - | 1,218 |  | $(1,218)$ | - | - |
| Stock based compensation expense | - | 3 | - |  | - | - | 3 |
| Stock dividend | 225 | 3,941 | $(4,166)$ |  | - | - |  |
| Purchase of treasury stock | - | - |  |  | - | (878) | (878) |
| Cash dividends declared, common stock | - | - | $(1,542)$ |  | - | - | $(1,542)$ |
| Balance, December 31, 2017 | \$ 6,047 | \$ 45,442 | \$ 50,595 | \$ | $(5,662)$ | \$ $(5,051)$ | \$ 91,371 |
| Net income | - | - | 10,714 |  | - | - | 10,714 |
| Other comprehensive loss | - | - | - |  | (437) | - | (437) |
| Issuance of stock under equity compensation plan | - | (51) | - |  | - | 186 | 135 |
| Purchase of treasury stock | - | - | - |  | - | (179) | (179) |
| Stock dividend | 232 | 4,782 | $(5,014)$ |  | - | - | - |
| Cash dividends declared, common stock | - | - | $(2,190)$ |  | - | - | $(2,190)$ |
| Balance, December 31, 2018 | \$ 6,279 | \$ 50,173 | \$ 54,105 | \$ | $(6,099)$ | \$ $(5,044)$ | \$ 99,414 |

See accompanying notes to the consolidated financial statements.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

## Consolidated Statements of Cash Flows



See accompanying notes to the consolidated financial statements.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2018, 2017, and 2016

## (1) Summary of Significant Accounting Policies

Hawthorn Bancshares, Inc. (the Company) through its subsidiary, Hawthorn Bank (the Bank), provides a broad range of banking services to individual and corporate customers located within the communities in and surrounding Jefferson City, Columbia, Clinton, Warsaw, Springfield, and the greater Kansas City metropolitan area. The Company is subject to competition from other financial and nonfinancial institutions providing financial products. Additionally, the Company and its subsidiaries are subject to the regulations of certain regulatory agencies and undergo periodic examinations by those regulatory agencies.

The accompanying consolidated financial statements of the Company have been prepared in conformity with U.S. generally accepted accounting principles (U.S. GAAP). The preparation of the consolidated financial statements includes all adjustments that, in the opinion of management, are necessary in order to make those statements not misleading. Management is required to make estimates and assumptions, including the determination of the allowance for loan losses, real estate acquired in connection with foreclosure or in satisfaction of loans, and fair values of investment securities available-for-sale that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The Company's management has evaluated and did not identify any subsequent events or transactions requiring recognition or disclosure in the consolidated financial statements.

The significant accounting policies used by the Company in the preparation of the consolidated financial statements are summarized below:

## Principles of Consolidation

In December of 2008, the Company formed Hawthorn Real Estate, LLC, (the Real Estate Company); a wholly owned subsidiary of the Company. In December of 2017, the Company formed Hawthorn Risk Management, Inc., (the Insurance Captive); a wholly owned subsidiary of the Company. The consolidated financial statements include the accounts of the Company, Hawthorn Bank (the Bank), the Real Estate Company, and the Insurance Captive. All significant intercompany accounts and transactions have been eliminated in consolidation.

## Loans

Loans that the Company has the intent and ability to hold for the foreseeable future or to maturity are held for investment at their stated unpaid principal balance amount less unearned income and the allowance for loan losses. Income on loans is accrued on a simple-interest basis. Loan origination fees and certain direct costs are deferred and recognized over the life of the loan as an adjustment to yield.

## Loans Held for Sale

Loans originated, primarily one-to-four family residential mortgage loans, with the intent to be sold in the secondary market are classified as held for sale and are accounted for at the lower of adjusted cost or fair value. Adjusted cost reflects the funded loan amount and any loan origination costs and fees. In order to manage the risk associated with such activities, the Company upon locking in an interest rate with the borrower enters into an agreement to sell such loans in the secondary market. Loans held for sale are typically sold with servicing rights retained and without recourse except for normal and customary representation and warranty provisions. Mortgage loans held for sale were $\$ 583,000$ at December 31, 2018 compared to $\$ 383,000$ loans held for sale at December 31, 2017.

## Impaired Loans

A loan is considered impaired when it is probable the Company will be unable to collect all amounts due, both principal and interest, according to the contractual terms of the loan agreement. Included in impaired loans are all non-accrual loans and loans whose terms have been modified in a troubled debt restructuring. Impaired loans are individually evaluated for impairment based on fair values of the underlying collateral, obtained through independent appraisals or internal valuations for a collateral dependent loan or by discounting the total expected future cash flows.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2018, 2017, and 2016

## Non-Accrual Loans

Loans are placed on nonaccrual status when management believes that the borrower's financial condition, after consideration of business conditions and collection efforts, is such that collection of interest is doubtful. Loans that are contractually 90 days past due as to principal and/or interest payments are generally placed on non-accrual, unless they are both well-secured and in the process of collection. Subsequent interest payments received on such loans are applied to principal if doubt exists as to the collectability of such principal; otherwise, such receipts are recorded as interest income on a cash basis. A loan remains on nonaccrual status until the loan is current as to payment of both principal and interest and/or the borrower demonstrates the ability to pay and remain current.

## Restructured Loans

A loan is accounted for as a troubled debt restructuring (TDR) if the Company, for economic or legal reasons related to the borrowers' financial difficulties, grants a concession to the borrower that it would not otherwise consider. A TDR typically involves (1) modification of terms such as a reduction of the stated interest rate, loan principal, accrued interest, or an extended maturity date (2) a loan renewal at a stated interest rate lower than the current market rate for a new loan with similar risk, or (3) debt that was not reaffirmed in bankruptcy. Nonperforming TDRs are returned to performing status once the borrower demonstrates the ability to pay under the terms of the restructured note through a sustained period of repayment performance, which is generally six months. The Company includes all performing and non-performing TDRs in the impaired and non-performing asset totals. The Company measures the impairment loss of a TDR in the same manner as described below. TDRs which are performing under their contractual terms continue to accrue interest which is recognized in current earnings.

## Allowance for Loan Losses

Management has identified the accounting policy related to the allowance for loan losses as critical to the understanding of the Company's results of operations, since the application of this policy requires significant management assumptions and estimates that could result in materially different amounts to be reported if conditions or underlying circumstances were to change. The fair value of impaired loans deemed collateral dependent, for purposes of the measurement of the impairment loss, can be subject to changing market conditions, supply and demand, condition of the collateral and other factors over time. Such volatility can have an impact on the financial performance of the Company.

Loans, or portions of loans, are charged off to the extent deemed uncollectible or a loss is confirmed. When loans become 90 days past due, they are generally placed on nonaccrual status or charged off unless extenuating circumstances justify leaving the loan on accrual basis. When loans reach 120 days past due and there is little likelihood of repayment, the uncollectible portion of the loans are charged off. Loan charge-offs reduce the allowance for loan losses, and recoveries of loans previously charged off are added back to the allowance. If management determines that it is probable that all amounts due on a loan will not be collected under the original terms of the loan agreement, the loan is considered to be impaired.

The specific reserve component applies to loans evaluated individually for impairment. The net carrying value of impaired loans is generally based on the fair values of collateral obtained through independent appraisals and/or internal evaluations, or by discounting the total expected future cash flows. Once the impairment amount is calculated, a specific reserve allocation is recorded.

The incurred loss component of the general reserve, or loans collectively evaluated for impairment, is determined by applying loss rates to pools of loans by loan type. Loans not individually evaluated are aggregated by risk characteristics and reserves are recorded using a consistent methodology that considers historical loan loss experience by loan type. The Company believes that the five-year look-back period provides a representative historical loss period in the current economic environment. These historical loss rates for each risk group are used as the starting point to determine loss rates for measurement purposes. The historical loan loss rates are multiplied by loss emergence periods (LEP) which represent the estimated time period between a borrower first experiencing financial difficulty and the recognition of a loss.

The Company's methodology includes qualitative risk factors that allow management to adjust its estimates of losses based on the most recent information available and to address other limitations in the quantitative component that is based on historical loss rates. Such risk

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2018, 2017, and 2016
factors are generally reviewed and updated quarterly, as appropriate, and are adjusted to reflect changes in national and local economic conditions and developments, the nature, volume and terms of loans in the portfolio, including changes in volume and severity of past due loans, the volume of nonaccrual loans, and the volume and severity of adversely classified or graded loans, loan concentrations, assessment of trends in collateral values, assessment of changes in the quality of the Company's internal loan review department, and changes in lending policies and procedures, including underwriting standards and collections, charge-off and recovery practices.

## Certificates of Deposit in other banks

Certificates of deposit are investments made by the Company with other financial institutions, in amounts less than $\$ 250,000$ each in order to qualify for FDIC insurance coverage, that are carried at cost which approximates fair values.

## Investment Securities

## Available for sale securities

The largest component of the Company's investment portfolio consists of debt securities which are classified as available-for-sale and are carried at fair value. Changes in fair value, excluding certain losses associated with other-than-temporary impairment, are reported in other comprehensive income, net of taxes, a component of stockholders' equity. Securities are periodically evaluated for other-thantemporary impairment in accordance with guidance provided in the FASB ASC Topic 320, Investments - Debt Securities. For those securities with other-than-temporary impairment, the entire loss in fair value is required to be recognized in current earnings if the Company intends to sell the securities or believes it more likely than not that it will be required to sell the security before the anticipated recovery. If neither condition is met, but the Company does not expect to recover the amortized cost basis, the Company determines whether a credit loss has occurred, which is then recognized in current earnings. The amount of the total other-than-temporary impairment related to all other factors is recognized in other comprehensive income.

Premiums and discounts are amortized using the interest method over the lives of the respective securities, with consideration of historical and estimated prepayment rates for mortgage-backed securities, as an adjustment to yield. Dividend and interest income are recognized when earned. Realized gains and losses for securities classified as available-for-sale are included in earnings based on the specific identification method for determining the cost of securities sold.

## Other investment securities

Other investment securities include equity securities with readily determinable fair values and other investment securities that do not have readily determinable fair values. Investments in Federal Home Loan Bank (FHLB) stock, and Midwest Independent Bank (MIB) bankers bank stock, that do not have readily determinable fair values, are required for membership in those organizations.

Equity securities with readily determinable fair values are recorded at fair value, with changes in fair value reflected in earnings. Equity securities that do not have readily determinable fair values are carried at cost and are periodically assessed for impairment.

## Capital Stock of the Federal Home Loan Bank

The Bank, as a member of the Federal Home Loan Bank System administered by the Federal Housing Finance Agency, is required to maintain an investment in the capital stock of the Federal Home Loan Bank of Des Moines (FHLB) in an amount equal to 12 basis points of the Bank's year-end total assets plus $4.00 \%$ of advances from the FHLB to the Bank. These investments are recorded at cost, which represents redemption value.

## Premises and Equipment

Premises and equipment are stated at cost, less accumulated depreciation. Depreciation applicable to buildings and improvements and furniture and equipment is charged to expense using straight-line and accelerated methods over the estimated useful lives of the assets. Such

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2018, 2017, and 2016
lives are estimated to be 5 to 40 years for buildings and improvements and 3 to 15 years for furniture and equipment. Maintenance and repairs are charged to expense as incurred.

## Mortgage Servicing Rights

The Company originates and sells residential mortgage loans in the secondary market and typically retains the right to service the loans sold. Servicing involves the collection of payments from individual borrowers and the distribution of those payments to the investors or master servicer. Upon a sale of mortgage loans for which servicing rights are retained, the retained mortgage servicing rights asset is capitalized at the fair value of future net cash flows expected to be realized for performing servicing activities.

Mortgage servicing rights are carried at fair value in the consolidated balance sheet with changes in the fair value recognized in earnings. As most servicing rights do not trade in an active market with readily observable prices, the Company determines the fair value of mortgage servicing rights by estimating the fair value of the future cash flows associated with the mortgage loans being serviced. Key assumptions used in measuring the fair value of mortgage servicing rights include, but are not limited to, prepayment speeds, discount rates, delinquencies, ancillary income, and cost to service. These assumptions are validated on a periodic basis. The fair value is validated on a quarterly basis with an independent third party valuation specialist firm.

In addition to the changes in fair value of the mortgage servicing rights, the Company also recorded loan servicing fee income as part of real estate servicing fees, net in the consolidated statements of income. Loan servicing fee income represents revenue earned for servicing mortgage loans. The servicing fees are based on contractual percentage of the outstanding principal balance and recognized as revenue as the related mortgage payments are collected. Corresponding loan servicing costs are charged to expense as incurred.

## Other Real Estate Owned and Repossessed Assets

Other real estate owned and repossessed assets consist of loan collateral that has been repossessed through foreclosure. This collateral is comprised of commercial and residential real estate and other non-real estate property, including autos, manufactured homes, and construction equipment. Other real estate owned assets are initially recorded as held for sale at the fair value of the collateral less estimated selling costs. Any adjustment is recorded as a charge-off against the allowance for loan losses. The Company relies on external appraisals and assessment of property values by internal staff. In the case of non-real estate collateral, reliance is placed on a variety of sources, including external estimates of value and judgment based on experience and expertise of internal specialists. Subsequent to foreclosure, valuations are updated periodically, and the assets may be written down to reflect a new cost basis. The valuation write-downs are recorded as other non-interest expense. The Company establishes a valuation allowance related to other real estate owned and repossessed assets on an asset-by-asset basis. The valuation allowance is created during the holding period when the fair value less cost to sell is lower than the cost of the asset.

## Pension Plan

The Company provides a noncontributory defined benefit pension plan for all full-time employees. The benefits are based on age, years of service and the level of compensation during the employees highest ten years of compensation before retirement. Net periodic costs are recognized as employees render the services necessary to earn the retirement benefits. The Company records annual amounts relating to its pension plan based on calculations that incorporate various actuarial and other assumptions including discount rates, mortality, assumed rates of return, compensation increases, and turnover rates. The Company reviews its assumptions on an annual basis and may make modifications to the assumptions based on current rates and trends when it is appropriate to do so. The Company believes that the assumptions utilized in recording its obligations under its plan are reasonable based on its experience and market conditions.

The Company follows authoritative guidance included in the FASB ASC Topic 715, Compensation - Retirement Plans under the subtopic Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans. ASC Topic 715 requires an employer to recognize the overfunded or underfunded status of a defined benefit postretirement plan (other than a multiemployer plan) as an asset or liability in its consolidated balance sheet and to recognize changes in the funded status in the year in which the changes occur through comprehensive income. This guidance also requires an employer to measure the funded status of a plan as of the date of its fiscal year-end, with limited

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2018, 2017, and 2016
exceptions. Additional disclosures are required to provide users with an understanding of how investment allocation decisions are made, major categories of plan assets, and fair value measurement of plan assets as defined in ASC Topic 820, Fair Value Measurements and Disclosures.

## Income Taxes

Income taxes are accounted for under the asset / liability method by recognizing the amount of taxes payable or refundable for the current period and deferred tax assets and liabilities for future tax consequences of events that have been recognized in the Company's financial statements or tax returns. Deferred income tax assets and liabilities are provided as temporary differences between the tax basis of an asset or liability and its reported amount in the consolidated financial statements at the enacted tax rate expected to be applied in the period the deferred tax item is expected to be realized. A valuation allowance, if needed, reduces deferred tax assets to the expected amount most likely to be realized. Realization of deferred tax assets is dependent upon the generation of a sufficient level of future taxable income and recoverable taxes paid in prior years.

The federal corporate income tax rate declined from $34 \%$ to $21 \%$ effective January 1, 2018 as a result of the Tax Cuts and Jobs Act, (Tax Act). The Company's tax rate is lower than the federal statutory rate primarily as a result of tax-exempt income, the release of the valuation allowance related to capital loss carryforwards, a pension contribution made during the second quarter of 2018 that was attributable to the 2017 plan year, and the Company's additional tax planning initiatives. The provisional adjustments recorded in the fourth quarter of 2017 related to the enactment of the Tax Act were finalized during the third quarter of 2018 with the filing of the Company's 2017 tax return, within the one-year measurement period provided under Staff Accounting Bulletin No. 118 in regards to the application of FASB's ASC Topic 740, Income Taxes.

The Tax Act resulted in stranded income tax effects in accumulated other comprehensive loss, for which new accounting guidance was issued under ASU 2018-02. This guidance allowed the Company to early adopt and retrospectively apply the reclassification of stranded income tax effects from accumulated other comprehensive loss to retained earnings. As of December 31, 2017, the Company reclassified $\$ 1.2$ million from accumulated other comprehensive loss to retained earnings resulting from the Tax Act.

A tax position is initially recognized in the financial statements when it is more likely than not the position will be sustained upon examination by the tax authorities. Such tax positions are initially and subsequently measured as the largest amount of tax benefit that is greater than $50 \%$ likely of being realized upon ultimate settlement with the tax authority assuming full knowledge of the position and all relevant facts. Penalties and interest incurred under the applicable tax law are classified as income tax expense. The Company has not recognized any tax liabilities or any interest or penalties in income tax expense related to uncertain tax positions as of December 31, 2018, 2017, and 2016.

## Trust Department

Property held by the Bank in a fiduciary or agency capacity for customers is not included in the accompanying consolidated balance sheets, since such items are not assets of the Company. Trust department income is recognized on the accrual basis.

## Consolidated Statements of Cash Flows

For the purpose of the consolidated statements of cash flows, cash and cash equivalents consist of short-term federal funds sold and securities sold or purchased under agreements to resell, overnight interest earning deposits with banks, cash, and due from banks.

## Stock-Based Compensation

The Company's stock-based employee compensation plan (the plan) is described in Note 13, Stock Compensation. In accordance with FASB ASC Topic 718, Compensation - Stock Compensation, the Company measures the cost of the stock-based compensation based on the grantdate fair value of the award, recognizing the cost over the requisite service period. The fair value of an award is estimated using the BlackScholes option-pricing model. The Company adopted ASU 2016-09, Improvements to Employee Share-Based Payment Accounting, on January 1, 2017 and elected to recognize forfeitures as they occur. Prior to the adoption of the ASU, the expense was recognized based on

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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an estimation of the number of awards for which the requisite service is expected to be rendered, and is included in salaries and employee benefits in the accompanying Consolidated Statements of Income. The plan expired on February 28, 2010, except as to outstanding options under the plan, and no further options may be granted pursuant to the plan. All options were fully expensed as of September $30,2017$.

## Treasury Stock

The purchase of the Company's common stock is recorded at cost. Purchases of the stock are made both in the open market and through negotiated private purchases based on market prices. At the date of subsequent reissue, the treasury stock account is reduced by the cost associated with such stock on a first-in-first-out basis. Gains on the sale of treasury stock are credited to additional paid-in-capital. Losses on the sale of treasury stock are charged to additional paid-in-capital to the extent of pervious gains, otherwise charged to retained earnings.

Stock Dividend On July 1, 2018, the Company paid a special stock dividend of four percent to shareholders of record at the close of business on June 15, 2018. For all periods presented, share information, including basic and diluted earnings per share, has been adjusted retroactively to reflect this change.

Summary of Recent Transactions and Events On February 8, 2019, Hawthorn Bank, a wholly-owned subsidiary of Hawthorn Bancshares, Inc., completed the sale of its branch located in Branson, Missouri to Branson Bank, Branson, Missouri. Total deposits transferred were approximately $\$ 10.6$ million while loans assigned to the branch were retained. The Branson branch land and building were considered assets held for sale at December 31, 2018. The sale is expected to result in a pre-tax gain of approximately $\$ 2.1$ million, $\$ 1.7$ million related to the land and building, subject to certain future adjustments required in the definitive agreement.

Reclassifications Certain prior year information has been reclassified to conform to the 2018 presentation.

## The following represents significant new accounting principles adopted in 2018:

Revenue from Contracts with Customers On January 1, 2018, the Company adopted ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606) and all subsequent ASUs that modified Topic 606. The implementation of the new 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 historic accounting under 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 mortgage servicing rights, financial guarantees, derivatives, and certain credit card fees are not in scope of the new guidance. Topic 606 is applicable to noninterest revenue streams such as trust department revenue, service charges and fees, debit card income, ATM surcharge income, and other real estate owned sales. However, the recognition of these revenue streams did not change significantly upon adoption of Topic 606. Noninterest revenue streams within the scope of Topic 606 are discussed in Footnote 16.

Financial Instruments The FASB issued ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities, in January 2016. The amendments require all equity investments to be measured at fair value with changes in the fair value recognized through net income, other than those accounted for under the equity method of accounting or those that result in the consolidation of the investee. Additionally, these amendments require presentation 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 for those liabilities measured at fair value. The amendments also require use of the exit price notion when measuring the fair value of financial instruments for disclosure purposes. These amendments are effective for interim and annual periods beginning January 1, 2018. The adoption of the ASU did not have a significant effect on the Company's consolidated financial statements.

The FASB issued ASU 2018-04, Investments - Debt Securities (Topic 320) and Regulated Operations (Topic 980): The amendment in this ASU adds, amends and supersedes various paragraphs that contain SEC guidance in ASC 320, Investments-Debt Securities and ASC 980, Regulated Operations. The amendments in this ASU are effective when a registrant adopts ASU 2016-01, which for the Company was January 1, 2018. This amendment did not have a significant effect on the Company's consolidated financial statements.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2018, 2017, and 2016
Liabilities The FASB issued ASU 2016-04, Recognition of Breakage for Certain Prepaid Stored-Value Products, in March 2016, in order to address current and potential future diversity in practice related to the derecognition of a prepaid stored-value product liability. Such products include prepaid gift cards issued on a specific payment network and redeemable at network-accepting merchant locations, prepaid telecommunication cards, and traveler's checks. The amendments require that the portion of the dollar value of prepaid stored-value products that is ultimately unredeemed (that is, the breakage) be accounted for consistent with the breakage guidance for stored-value product transactions provided in ASC Topic 606 - Revenue from Contracts with Customers. These amendments are effective for interim and annual periods beginning January 1, 2018. The adoption of the ASU did not have a significant effect on the Company's consolidated financial statements.

Pension The FASB issued ASU 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost in March 2017. Under the new guidance, the Company presents the service cost component of the net periodic benefit cost in the same income statement line item (e.g., Salaries and Benefits) as other employee compensation costs arising from services rendered during the period. In addition, only the service cost component will be eligible for capitalization in assets. The Company presents the other components separately (e.g., Other Noninterest Expense) from the line item that includes the service cost. The Company utilizes the ASU's practical expedient allowing entities to estimate amounts for comparative periods using the information previously disclosed in their pension and other postretirement benefit plan footnote. The amendments were effective January 1, 2018 and did not have a significant effect on the Company's consolidated financial statements. See Note 12 for further discussion.

## (2) Loans and Allowance for Loan Losses

## Loans

A summary of loans, by major class within the Company's loan portfolio, at December 31, 2018 and 2017 is as follows:

| (in thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Commercial, financial, and agricultural | \$ | 207,720 | \$ | 192,238 |
| Real estate construction - residential |  | 28,610 |  | 26,492 |
| Real estate construction - commercial |  | 106,784 |  | 98,340 |
| Real estate mortgage - residential |  | 241,517 |  | 246,754 |
| Real estate mortgage - commercial |  | 529,536 |  | 472,455 |
| Installment and other consumer |  | 32,460 |  | 32,153 |
| Total loans | \$ | 1,146,627 | \$ | 1,068,432 |

The Bank grants real estate, commercial, installment, and other consumer loans to customers located within the communities surrounding Jefferson City, Columbia, Clinton, Warsaw, Springfield, Branson and the greater Kansas City metropolitan area. As such, the Bank is susceptible to changes in the economic environment in these communities. The Bank does not have a concentration of credit in any one economic sector. Installment and other consumer loans consist primarily of the financing of vehicles. At December 31, 2018, \$530.1 million of loans were pledged to the Federal Home Loan Bank as collateral for borrowings and letters of credit.

The following is a summary of loans to directors and executive officers or to entities in which such individuals had a beneficial interest of the Company:

| (in thousands) |  |  |
| :---: | :---: | :---: |
| Balance at December 31, 2017 | \$ | 6,442 |
| New loans and new directors. |  | 1,127 |
| Amounts collected |  | $(1,565)$ |
| Balance at December 31, 2018 | \$ | 6,004 |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements
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Such loans were made in the normal course of business on substantially the same terms, including interest rates and collateral requirements, as those prevailing at the same time for comparable transactions with other persons, and did not involve more than the normal risk of collectability or present unfavorable features.

## Allowance for loan losses

The following table illustrates the changes in the allowance for loan losses by portfolio segment:

| (in thousands) | Commercial, Financial, \& Agricultural |  | Real EstateConstruction -Residential |  | Real Estate Construction Commercial |  | Real Estate Mortgage Residential |  | Real Estate Mortgage Commercial |  | Installment Loans to Individuals |  | Unallocated |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at December 31, 2015 . . . | \$ | 2,153 | \$ | 59 | \$ | 644 | \$ | 2,439 | \$ | 2,935 | \$ | 273 | \$ | 101 | \$ | 8,604 |
| Additions: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Provision for loan losses |  | 690 |  | 49 |  | (732) |  | 381 |  | 865 |  | 113 |  | 59 |  | 1,425 |
| Deductions: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans charged off |  | 389 |  | - |  | 1 |  | 495 |  | 147 |  | 258 |  | - |  | 1,290 |
| Less recoveries on loans . . . . . . . . |  | (299) |  | - |  | (502) |  | (60) |  | (140) |  | (146) |  | - |  | $(1,147)$ |
| Net loans charged off . . . . . . . . . . . |  | 90 |  | - |  | (501) |  | 435 |  | 7 |  | 112 |  | - |  | 143 |
| Balance at December 31, 2016 . . . | \$ | 2,753 | \$ | 108 | \$ | 413 | \$ | 2,385 | \$ | 3,793 | \$ | 274 | \$ | 160 | \$ | 9,886 |
| Additions: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Provision for loan losses |  | 1,147 |  | (26) |  | 394 |  | (560) |  | 657 |  | 234 |  | (81) |  | 1,765 |
| Deductions: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans charged off |  | 649 |  | - |  | - |  | 219 |  | 45 |  | 268 |  | - |  | 1,181 |
| Less recoveries on loans |  | (74) |  | (88) |  | - |  | (83) |  | (32) |  | (105) |  | - |  | (382) |
| Net loans charged off . . . . . . . . . . |  | 575 |  | (88) |  | - |  | 136 |  | 13 |  | 163 |  | - |  | 799 |
| Balance at December 31, 2017 . . . | \$ | 3,325 | \$ | 170 | \$ | 807 | \$ | 1,689 | \$ | 4,437 |  | 345 | \$ | 79 |  | 10,852 |
| Additions: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Provision for loan losses . . . . . . . . |  | 296 |  | (44) |  | (20) |  | 516 |  | 457 |  | 150 |  | 120 |  | 1,475 |
| Deductions: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans charged off |  | 484 |  | 48 |  | 30 |  | 186 |  | 38 |  | 255 |  | - |  | 1,041 |
| Less recoveries on loans . . . . . . . . |  | (100) |  | (62) |  | - |  | (52) |  | (58) |  | (94) |  | - |  | (366) |
| Net loans charged off . . . . . . . . . . . |  | 384 |  | (14) |  | 30 |  | 134 |  | (20) |  | 161 |  | - |  | 675 |
| Balance at December 31, $2018 \ldots$ | \$ | 3,237 | \$ | 140 | \$ | 757 | \$ | 2,071 | \$ | 4,914 | \$ | 334 | \$ | 199 |  | 11,652 |

Loans, or portions of loans, are charged off to the extent deemed uncollectible or a loss is confirmed. Loan charge-offs reduce the allowance for loan losses, and recoveries of loans previously charged off are added back to the allowance. If management determines that it is probable that all amounts due on a loan will not be collected under the original terms of the loan agreement, the loan is considered to be impaired. These loans are evaluated individually for impairment, and in conjunction with current economic conditions and loss experience, specific reserves are estimated as further discussed below. Loans not individually evaluated are aggregated by risk characteristics and reserves are recorded using a consistent methodology that considers historical loan loss experience by loan type, delinquencies, current economic conditions, loan risk ratings and industry concentration.

Beginning with December 31, 2017, the Company utilized a five-year look-back period, which was considered a representative historical loss period. The look-back period is consistently evaluated for relevance given the current facts and circumstances.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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December 31, 2018, 2017, and 2016
The following table illustrates the allowance for loan losses and recorded investment by portfolio segment:

| (in thousands) | Commercial, Financial, and Agricultural |  | Real Estate Construction Residentia |  | Real Estate Construction Commercial |  | Real Estate <br> Mortgage - <br> Residential |  | Real Estate <br> Mortgage - <br> Commercial |  | Installment and Other Consumer |  | Unallocated |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| December 31, 2018 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Allowance for loan losses: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Individually evaluated for impairment | \$ | 551 | \$ | - | \$ | - | \$ | 579 | \$ | 37 | \$ | 27 | \$ | - | \$ | 1,194 |
| Collectively evaluated for impairment |  | 2,686 |  | 140 |  | 757 |  | 1,492 |  | 4,877 |  | 307 |  | 199 |  | 10,458 |
| Total | \$ | 3,237 | \$ | 140 | \$ | 757 | \$ | 2,071 | \$ | 4,914 | \$ | 334 | \$ | 199 | \$ | $\underline{\text { 11,652 }}$ |
| Loans outstanding: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Individually evaluated for impairment | \$ | 2,428 | \$ | - | \$ | 153 | \$ | 4,793 | \$ | 850 | \$ | 254 | \$ | - | \$ | 8,478 |
| Collectively evaluated for impairment |  | 205,292 |  | 28,610 |  | 106,631 |  | 236,724 |  | 528,686 |  | 32,206 |  | - |  | 1,138,149 |
| $\underbrace{\text { Total . . . . . . . . . . . . . }}$ | \$ | 207,720 | \$ | 28,610 | \$ | 106,784 | \$ | 241,517 | \$ | 529,536 | \$ | 32,460 | \$ | - |  | 1,146,627 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| December 31, 2017 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Allowance for loan losses: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Individually evaluated for impairment | \$ | 500 | \$ | - | \$ | 48 | \$ | 521 | \$ | 243 | \$ | 21 | \$ | - | \$ | 1,333 |
| Collectively evaluated for impairment . . . . |  | 2,825 |  | 170 |  | 759 |  | 1,168 |  | 4,194 |  | 324 |  | 79 |  | 9,519 |
| Total....................... | \$ | 3,325 | \$ | 170 | \$ | 807 | \$ | 1,689 | \$ | 4,437 | \$ | 345 | \$ | 79 | \$ | 10,852 |
| Loans outstanding: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Individually evaluated for impairment | \$ | 3,007 | \$ | - | \$ | 97 | \$ | 5,072 | \$ | 2,004 | \$ | 176 | \$ | - | \$ | 10,356 |
| Collectively evaluated for impairment . . . . |  | 189,231 |  | 26,492 |  | 98,243 |  | 241,682 |  | 470,451 |  | 31,977 |  | - |  | , ,058,076 |
| Total........................... | \$ | 192,238 | \$ | 26,492 | \$ | 98,340 | \$ | 246,754 | \$ | 472,455 | \$ | 32,153 | \$ | - |  | 1,068,432 |

## Impaired loans

Loans evaluated under ASC 310-10-35 include loans which are individually evaluated for impairment. All other loans are collectively evaluated for impairment under ASC 450-20. Impaired loans individually evaluated for impairment totaled $\$ 8.5$ million and $\$ 10.4$ million at December 31, 2018 and 2017, respectively, and are comprised of loans on non-accrual status and loans which have been classified as troubled debt restructurings (TDRs).

The net carrying value of impaired loans is based on the fair values of collateral obtained through independent appraisals or internal evaluations, or by discounting the total expected future cash flows. At December 31, 2018 and 2017, $\$ 3.8$ million and $\$ 4.0$ million, respectively, of impaired loans were evaluated based on the fair value less estimated selling costs of the loan's collateral. Once the impairment amount is calculated, a specific reserve allocation is recorded. At December 31, 2018, $\$ 1.2$ million of the Company's allowance for loan losses was allocated to impaired loans totaling $\$ 8.5$ million compared to $\$ 1.3$ million of the Company's allowance for loan losses allocated to impaired loans totaling approximately $\$ 10.4$ million at December 31, 2017. Management determined that $\$ 2.1$ million, or $25 \%$, of total impaired loans required no reserve allocation at December 31, 2018 compared to $\$ 2.4$ million, or $23 \%$, at December 31, 2017 primarily due to adequate collateral values, acceptable payment history and adequate cash flow ability.

The categories of impaired loans at December 31, 2018 and 2017 are as follows:

| (in thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Non-accrual loans. | \$ | 5,414 | \$ | 5,672 |
| Performing TDRs. |  | 3,064 |  | 4,684 |
| Total impaired loans | \$ | 8,478 | \$ | 10,356 |

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December 31, 2018, 2017, and 2016
The following tables provide additional information about impaired loans at December 31, 2018 and 2017, respectively, segregated between loans for which an allowance has been provided and loans for which no allowance has been provided.

| (in thousands) | Recorded <br> Investment |  | Unpaid Principal Balance |  | Specific <br> Reserves |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| December 31, 2018 |  |  |  |  |  |  |
| With no related allowance recorded: |  |  |  |  |  |  |
| Commercial, financial and agricultural | \$ | 1,264 | \$ | 1,550 | \$ | - |
| Real estate - construction commercial |  | 153 |  | 180 |  | - |
| Real estate - residential |  | 561 |  | 602 |  | - |
| Real estate - commercial |  | 115 |  | 119 |  | - |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 2,093 | \$ | 2,451 | \$ | - |
| With an allowance recorded: |  |  |  |  |  |  |
| Commercial, financial and agricultural | \$ | 1,164 | \$ | 1,236 | \$ | 551 |
| Real estate - residential |  | 4,232 |  | 4,458 |  | 579 |
| Real estate - commercial |  | 735 |  | 1,093 |  | 37 |
| Installment and other consumer |  | 254 |  | 280 |  | 27 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 6,385 | \$ | 7,067 | \$ | 1,194 |
| Total impaired loans. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 8,478 | \$ | 9,518 | \$ | 1,194 |
| (in thousands) |  | Recorded vestment |  | npaid <br> incipal <br> alance |  | cific erves |
| December 31, 2017 |  |  |  |  |  |  |
| With no related allowance recorded: |  |  |  |  |  |  |
| Commercial, financial and agricultural | \$ | 1,393 | \$ | 1,445 | \$ | - |
| Real estate - residential |  | 674 |  | 688 |  | - |
| Real estate - commercial. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 366 |  | 395 |  | - |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 2,433 | \$ | 2,528 | \$ | - |
| With an allowance recorded: |  |  |  |  |  |  |
| Commercial, financial and agricultural | \$ | 1,614 | \$ | 1,834 | \$ | 500 |
| Real estate - construction commercial |  | 97 |  | 97 |  | 48 |
| Real estate - residential |  | 4,398 |  | 4,500 |  | 521 |
| Real estate - commercial |  | 1,638 |  | 1,743 |  | 243 |
| Installment and other consumer . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 176 |  | 196 |  | 21 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 7,923 | \$ | 8,370 | \$ | 1,333 |
| Total impaired loans. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 10,356 | \$ | 10,898 | \$ | 1,333 |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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December 31, 2018, 2017, and 2016

The following table presents by class, information related to the average recorded investment and interest income recognized on impaired loans for the years ended December 31, 2018 and 2017:

|  |  |
| :--- | :--- |

The recorded investment varies from the unpaid principal balance primarily due to partial charge-offs taken resulting from current appraisals received. The amount recognized as interest income on impaired loans continuing to accrue interest, primarily related to troubled debt restructurings, was $\$ 199,000$ and $\$ 256,000$, for the years ended December 31, 2018 and 2017, respectively. The average recorded investment in impaired loans is calculated on a monthly basis during the years reported.

## Delinquent and Non-Accrual Loans

The delinquency status of loans is determined based on the contractual terms of the notes. Borrowers are generally classified as delinquent once payments become 30 days or more past due. The Company's policy is to discontinue the accrual of interest income on any loan when, in the opinion of management, the ultimate collectability of interest or principal is no longer probable. In general, loans are placed on nonaccrual when they become 90 days or more past due. However, management considers many factors before placing a loan on non-accrual, including the delinquency status of the loan, the overall financial condition of the borrower, the progress of management's collection efforts and the value of the underlying collateral. Non-accrual loans are returned to accrual status when, in the opinion of management, the financial condition of the borrower indicates that the timely collectability of interest and principal is probable and the borrower demonstrates the ability to pay under the terms of the note through a sustained period of repayment performance, which is generally six months.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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The following table provides aging information for the Company's past due and non-accrual loans at December 31, 2018 and 2017.

| (in thousands) | Current or Less Than 30 Days Past Due | $\begin{gathered} \text { 30-89 Days } \\ \text { Past Due } \\ \hline \end{gathered}$ |  | 90 Days <br> Past Due <br> And Still <br> Accruing |  | Non-Accrual |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| December 31, 2018 |  |  |  |  |  |  |  |  |  |
| Commercial, Financial, and Agricultural | \$ 205,597 | \$ | 266 | \$ | - | \$ | 1,857 | \$ | 207,720 |
| Real Estate Construction - Residential | 28,404 |  | 206 |  | - |  | - |  | 28,610 |
| Real Estate Construction - Commercial | 106,531 |  | 100 |  | - |  | 153 |  | 106,784 |
| Real Estate Mortgage - Residential. | 235,734 |  | 2,907 |  | 156 |  | 2,720 |  | 241,517 |
| Real Estate Mortgage - Commercial. | 527,968 |  | 1,094 |  | - |  | 474 |  | 529,536 |
| Installment and Other Consumer. | 32,002 |  | 242 |  | 6 |  | 210 |  | 32,460 |
| Total.......... | \$ 1,136,236 | \$ | 4,815 | \$ | 162 | \$ | 5,414 |  | 146,627 |
| December 31, 2017 |  |  |  |  |  |  |  |  |  |
| Commercial, Financial, and Agricultural | \$ 189,537 | \$ | 192 | \$ | 2 | \$ | 2,507 | \$ | 192,238 |
| Real Estate Construction - Residential | 25,930 |  | 287 |  | 275 |  | - |  | 26,492 |
| Real Estate Construction - Commercial | 98,243 |  | - |  | - |  | 97 |  | 98,340 |
| Real Estate Mortgage - Residential. | 242,597 |  | 2,173 |  | 28 |  | 1,956 |  | 246,754 |
| Real Estate Mortgage - Commercial. | 471,476 |  | 43 |  | - |  | 936 |  | 472,455 |
| Installment and Other Consumer. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 31,715 |  | 239 |  | 23 |  | 176 |  | 32,153 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 1,059,498 | \$ | 2,934 | \$ | 328 | \$ | 5,672 |  | ,068,432 |

## Credit Quality

The Company categorizes loans into risk categories based upon an internal rating system reflecting management's risk assessment. Loans are placed on watch status when one or more weaknesses that may result in the deterioration of the repayment exits or the Company's credit position at some future date. Loans classified as substandard are inadequately protected by the current sound worth and paying capacity of the obligor or by the collateral pledged, if any. Loans so classified may have a well-defined weakness or weaknesses that jeopardize the repayment of the debt. Such loans are characterized by the distinct possibility that the Company may sustain some loss if the deficiencies are not corrected. A loan is classified as a troubled debt restructuring (TDR) when a borrower is experiencing financial difficulties that lead to the restructuring of a loan, and the Company grants concessions to the borrower in the restructuring that it would not otherwise consider. Loans classified as TDRs which are accruing interest are classified as performing TDRs. Loans classified as TDRs which are not accruing interest are classified as nonperforming TDRs and are included with all other nonaccrual loans for presentation purposes. It is the Company's policy to discontinue the accrual of interest income on loans when management believes that the collection of interest or principal is doubtful. Loans are placed on non-accrual status when (1) deterioration in the financial condition of the borrower exists for which payment of full principal and interest is not expected, or (2) payment of principal or interest has been in default for a period of 90 days or more and the asset is not both well secured and in the process of collection. Subsequent interest payments received on such loans are applied to principal if any doubt exists as to the collectability of such principal; otherwise, such receipts are recorded as interest income on a cash basis.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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The following table presents the risk categories by class at December 31, 2018 and 2017.

| (in thousands) | Commercial, Financial, \& Agricultural |  | Real Estate Construction Residential |  | Real Estate Construction Commercial |  | Real Estate <br> Mortgage - <br> Residential | Real Estate Mortgage Commercial |  | Installment and other Consumer |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| At December 31, 2018 |  |  |  |  |  |  |  |  |  |  |  |  |
| Watch | \$ | 8,871 | \$ | 588 | \$ | 4,063 | \$ 12,790 | \$ | 36,408 | \$ | 8 | \$ 62,728 |
| Substandard |  | 53 |  | - |  | - | 1,411 |  | 702 |  | 3 | 2,169 |
| Performing TDRs. |  | 570 |  | - |  | - | 2,073 |  | 377 |  | 44 | 3,064 |
| Non-accrual |  | 1,857 |  | - |  | 153 | 2,720 |  | 474 |  | 210 | 5,414 |
| Total. | \$ | 11,351 | \$ | 588 | \$ | 4,216 | \$ 18,994 | \$ | 37,961 | \$ | 265 | \$ 73,375 |
| At December 31, 2017 |  |  |  |  |  |  |  |  |  |  |  |  |
| Watch | \$ | 9,868 | \$ | 1,459 | \$ | 1,284 | \$ 9,978 | \$ | 49,197 | \$ | - | \$ 71,786 |
| Substandard |  | 658 |  | 462 |  | - | 2,262 |  | 723 |  | 16 | 4,121 |
| Performing TDRs. |  | 500 |  | - |  | - | 3,116 |  | 1,068 |  | - | 4,684 |
| Non-accrual |  | 2,507 |  | - |  | 97 | 1,956 |  | 936 |  | 176 | 5,672 |
| Total. . . . . | \$ | 13,533 | \$ | 1,921 | \$ | 1,381 | \$ 17,312 | \$ | 51,924 | \$ | 192 | \$86,263 |

## Troubled Debt Restructurings

At December 31, 2018, loans classified as TDRs totaled $\$ 5.0$ million, of which $\$ 2.0$ million were classified as nonperforming TDRs and included in non-accrual loans and $\$ 3.0$ million were classified as performing TDRs. At December 31, 2017, loans classified as TDRs totaled $\$ 6.4$ million, of which $\$ 1.7$ million were classified as nonperforming TDRs and included in non-accrual loans and $\$ 4.7$ million were classified as performing TDRs. Both performing and nonperforming TDRs are considered impaired loans. When an individual loan is determined to be a TDR, the amount of impairment is based upon the present value of expected future cash flows discounted at the loan's effective interest rate or the fair value of the underlying collateral less applicable selling costs. Accordingly, specific reserves of $\$ 543,000$ and $\$ 577,000$ related to TDRs were allocated to the allowance for loan losses at December 31, 2018 and 2017, respectively.

The following table summarizes loans that were modified as TDRs during the years ended December 31, 2018 and 2017.

| (in thousands) | 2018 |  |  |  |  | 2017 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Recorded Investment (1) |  |  |  |  | Recorded Investment (1) |  |  |  |  |
|  | Number of Contracts | Pre-Modification |  | PostModification |  | Number of Contracts | Pre- <br> Modification |  | Post-Modification |  |
| Troubled Debt Restructurings |  |  |  |  |  |  |  |  |  |  |
| Commercial, financial and agricultural | 3 | \$ | \$ 510 | \$ | 502 | 3 | \$ | 773 | \$ | 773 |
| Real estate mortgage - residential. | 2 |  | 149 |  | 147 | 2 |  | 118 |  | 116 |
| Real estate mortgage - commercial. | - |  | - |  | - | 1 |  | 55 |  | 49 |
| Installment and other consumer . . . . . . . . . . . . . . . . . . . . . . | 5 |  | 185 |  | 117 | - |  | - |  | - |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 10 | \$ | \$ 844 | \$ | 766 | 6 | \$ | 946 | \$ | 938 |

(1) The amounts reported post-modification are inclusive of all partial pay-downs and charge-offs, and no portion of the debt was forgiven. Loans modified as a TDR that were fully paid down, charged-off, or foreclosed upon during the period ended are not reported.

The Company's portfolio of loans classified as TDRs include concessions for the borrower due to deteriorated financial condition such as interest rates below the current market rate, deferring principal payments, and extending maturity dates. During the year ended December 31, 2018, ten loans meeting the TDR criteria were modified compared to six loans during the year ended December 31, 2017.

The Company considers a TDR to be in default when it is 90 days or more past due under the modified terms, a charge-off occurs, or it is the process of foreclosure. There was one consumer TDR with a $\$ 3,000$ balance, where a concession was made and subsequently defaulted and was charged off during the year ended December 31, 2018, within twelve months of its modification date. This is compared to one

## HAWTHORN BANCSHARES, INC. <br> AND SUBSIDIARIES

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commercial TDR with a $\$ 123,000$ balance where a concession was made and subsequently defaulted and was charged off during the year ended December 31, 2017.

## (3) Other Real Estate and Repossessed Assets Acquired in Settlement of Loans

| (in thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Commercial | \$ | 1,168 | \$ | 727 |
| Real estate construction - residential |  | 179 |  | - |
| Real estate construction - commercial |  | 12,101 |  | 12,380 |
| Real estate mortgage - residential |  | 336 |  | 382 |
| Real estate mortgage - commercial. |  | 2,909 |  | 2,909 |
| Repossessed assets.... |  | - |  | 5 |
| Total | \$ | 16,693 | \$ | 16,403 |
| Less valuation allowance for other real estate owned |  | $(3,002)$ |  | $(3,221)$ |
| Total other real estate and repossessed assets . | \$ | 13,691 | \$ | 13,182 |

Changes in the net carrying amount of other real estate owned and repossessed assets were as follows:

| Balance at December 31, 2016 | \$ | 17,291 |
| :---: | :---: | :---: |
| Additions. |  | 374 |
| Proceeds from sales |  | $(1,115)$ |
| Charge-offs against the valuation allowance for other real estate owned, net. |  | (192) |
| Net gain on sales . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 45 |
| Balance at December 31, 2017 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 16,403 |
| Additions. |  | 1,106 |
| Proceeds from sales |  | (585) |
| Charge-offs against the valuation allowance for other real estate owned, net. |  | (245) |
| Net gain on sales . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 14 |
| Total other real estate and repossessed assets . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 16,693 |
| Less valuation allowance for other real estate owned . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | $(3,002)$ |
| Balance at December 31, 2018 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 13,691 |

At December 31, 2018, $\$ 200,000$ of consumer mortgage loans secured by residential real estate properties were in the process of foreclosure compared to no loans in the process of foreclosure at December 31, 2017.

Activity in the valuation allowance for other real estate owned in settlement of loans for the years ended December 31, 2018, 2017 and 2016, respectively, is summarized as follows:

| (in thousands) | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance, beginning of period | \$ | 3,221 | \$ | 3,129 | \$ | 3,233 |
| Provision for other real estate owned |  | 26 |  | 284 |  | 213 |
| Charge-offs . |  | (245) |  | (192) |  | (317) |
| Balance, end of period . . . . . . . . . | \$ | 3,002 | \$ | 3,221 | \$ | 3,129 |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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## (4) Investment Securities

The amortized cost, gross unrealized gains and losses, and fair value of debt securities classified as available-for-sale at December 31, 2018 and 2017 are shown below.

| (in thousands) | TotalAmortizedCost |  | Gross Unrealized |  |  |  | Fair <br> Value |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Gains |  | Losses |  |  |  |
| December 31, 2018 |  |  |  |  |  |  |  |  |
| U.S. Treasury | \$ | 1,984 | \$ | - | \$ | (32) | \$ | 1,952 |
| U.S. government and federal agency obligations. |  | 10,235 |  | - |  | (269) |  | 9,966 |
| Government sponsored enterprises |  | 43,784 |  | 23 |  | (472) |  | 43,335 |
| Obligations of states and political subdivisions |  | 40,859 |  | 28 |  | (501) |  | 40,386 |
| Mortgage-backed securities: |  | 121,230 |  | 72 |  | $(3,110)$ |  | 118,192 |
| Other debt securities (a). |  | 3,000 |  | - |  | - |  | 3,000 |
| Bank issued trust preferred securities (a) |  | 1,486 |  | - |  | (112) |  | 1,374 |
| Total available-for-sale securities |  | 222,578 | \$ | 123 | \$ | $(4,496)$ |  | 218,205 |
| December 31, 2017 |  |  |  |  |  |  |  |  |
| U.S. Treasury | \$ | 1,980 | \$ | - | \$ | (13) | \$ | 1,967 |
| U.S. government and federal agency obligations. |  | 12,341 |  | - |  | (268) |  | 12,073 |
| Government sponsored enterprises |  | 37,321 |  | - |  | (424) |  | 36,897 |
| Obligations of states and political subdivisions |  | 47,019 |  | 114 |  | (477) |  | 46,656 |
| Mortgage-backed securities: |  | 131,045 |  | 44 |  | $(2,140)$ |  | 128,949 |
| Other debt securities (a). |  | 3,000 |  | - |  | - |  | 3,000 |
| Bank issued trust preferred securities (a) . . . . . . |  | 1,486 |  | - |  | - |  | 1,486 |
| $\underline{\text { Total available-for-sale securities }}$ |  | 234,192 | \$ | 158 | \$ | $(3,322)$ |  | 231,028 |

(a) Certain hybrid instruments possessing characteristics typically associated with debt obligations were reclassified from other securities carried at cost to available for sale securities carried at fair value in the years presented.

The Company's investment securities are classified as available for sale. Agency bonds and notes, Small Business Administration guaranteed loan certificates (SBA), residential and commercial agency mortgage-backed securities, and agency collateralized mortgage obligations (CMO) include securities issued by the Government National Mortgage Association (GNMA), a U.S. government agency, the Federal National Mortgage Association (FNMA), the Federal Home Loan Mortgage Corporation (FHLMC) and the Federal Home Loan Bank (FHLB), which are U.S. government-sponsored enterprises.

Debt securities with carrying values aggregating approximately $\$ 153.0$ million and $\$ 181.7$ million at December 31, 2018 and December 31, 2017, respectively, were pledged to secure public funds, securities sold under agreements to repurchase, and for other purposes as required or permitted by law.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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The amortized cost and fair value of debt securities classified as available-for-sale at December 31, 2018, by contractual maturity are shown below. Expected maturities may differ from contractual maturities because borrowers have the right to call or prepay obligations with or without prepayment penalties.

| (in thousands) | Amortized Cost |  | Fair <br> Value |  |
| :---: | :---: | :---: | :---: | :---: |
| Due in one year or less. | \$ | 18,076 | \$ | 17,964 |
| Due after one year through five years. |  | 63,424 |  | 62,599 |
| Due after five years through ten years |  | 13,750 |  | 13,505 |
| Due after ten years . . . . . |  | 6,098 |  | 5,945 |
| Total |  | 101,348 |  | 100,013 |
| Mortgage-backed securities. . . . . . . . |  | 121,230 |  | 118,192 |
| Total available-for-sale securities | \$ | 222,578 | \$ | 218,205 |

## Other investment securities

Other investment securities include equity securities with readily determinable fair values and other investment securities that do not have readily determinable fair values. Investments in Federal Home Loan Bank (FHLB) stock, and Midwest Independent Bank (MIB) bankers bank stock, that do not have readily determinable fair values, are required for membership in those organizations.

| (in thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Other securities: |  |  |  |  |
| FHLB stock. | \$ | 5,512 | \$ | 6,390 |
| MIB stock |  | 151 |  | 151 |
| Equity securities with readily determinable fair values |  | 12 |  | 10 |
| Total other investment securities. | \$ | 5,675 | \$ | 6,551 |

Gross unrealized losses on debt securities and the fair value of the related securities, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position at December 31, 2018 and December 31, 2017 were as follows:

| (in thousands) | Less than 12 months |  |  | 12 months or more |  |  | Total | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair <br> Value | UnrealizedLosses |  |  | Fair <br> Value | $\begin{gathered} \hline \text { Unrealized } \\ \text { Losses } \\ \hline \end{gathered}$ | Fair <br> Value | $\begin{gathered} \hline \text { Unrealized } \\ \text { Losses } \\ \hline \end{gathered}$ |
| At December 31, 2018 |  |  |  |  |  |  |  |  |
| U.S. Treasury | \$ | \$ | - | \$ | \$ 1,952 | \$ (32) | \$ 1,952 | \$ (32) |
| U.S. government and federal agency obligations. | - |  | - |  | 9,966 | (269) | 9,966 | (269) |
| Government sponsored enterprises | 1,997 |  | (3) |  | 33,346 | (469) | 35,343 | (472) |
| Obligations of states and political subdivisions | 5,851 |  | (16) |  | 28,832 | (485) | 34,683 | (501) |
| Mortgage-backed securities. | 10,085 |  | (61) |  | 99,321 | $(3,049)$ | 109,406 | $(3,110)$ |
| Bank issued trust preferred securities . | - |  | - |  | 1,374 | (112) | 1,374 | (112) |
| Total. . . . . . . . . | \$ 17,933 | \$ | (80) |  | 174,791 | \$ $(4,416)$ | \$ 192,724 | \$ $(4,496)$ |

## (in thousands)

| At December 31, 2017 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasury | \$ 1,967 | \$ | (13) | \$ | \$ | \$ 1,967 | \$ (13) |
| U.S. government and federal agency obligations. | - |  | - | 12,073 | (268) | 12,073 | (268) |
| Government sponsored enterprises | 16,471 |  | (119) | 20,426 | (305) | 36,897 | (424) |
| Obligations of states and political subdivisions | 22,013 |  | (165) | 12,570 | (312) | 34,583 | (477) |
| Mortgage-backed securities: . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 52,829 |  | (488) | 69,580 | $(1,652)$ | 122,409 | $(2,140)$ |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 93,280 | \$ | (785) | \$ 114,649 | \$ $(2,537)$ | \$ 207,929 | \$ $(3,322)$ |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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The total available for sale portfolio consisted of approximately 366 securities at December 31, 2018. The portfolio included 317 securities having an aggregate fair value of $\$ 192.7$ million that were in a loss position at December 31, 2018. Securities identified as temporarily impaired which had been in a loss position for 12 months or longer had a fair value of $\$ 174.8$ million at December 31, 2018. The $\$ 4.5$ million aggregate unrealized loss included in accumulated other comprehensive loss at December 31, 2018 was caused by interest rate fluctuations.

The total available for sale portfolio consisted of approximately 355 securities at December 31, 2017. The portfolio included 280 securities having an aggregate fair value of $\$ 207.9$ million that were in a loss position at December 31, 2017. Securities identified as temporarily impaired which had been in a loss position for 12 months or longer had a fair value of $\$ 114.6$ million at December 31, 2017. The $\$ 3.3$ million aggregate unrealized loss included in accumulated other comprehensive loss at December 31, 2017 was caused by interest rate fluctuations.

Because the decline in fair value is attributable to changes in interest rates and not credit quality, these investments were not considered other-than-temporarily impaired at December 31, 2018 and 2017, respectively. In the absence of changes in credit quality of these investments, the fair value is expected to recover on all debt securities as they approach their maturity date, or re-pricing date or if market yields for such investments decline. In addition, the Company does not have the intent to sell these investments over the period of recovery, and it is not more likely than not that the Company will be required to sell such investment securities.

The table presents the components of investment securities gains and losses, which have been recognized in earnings:

| (in thousands) | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment securities gains, net |  |  |  |  |  |  |
| Available for sale securities: |  |  |  |  |  |  |
| Gains realized on sales. | \$ | 253 | \$ | 38 | \$ | 623 |
| Losses realized on sales |  | - |  | (33) |  | (21) |
| Other-than-temporary impairment recognized. |  | - |  | - |  | - |
| Other investment securities: |  |  |  |  |  |  |
| Fair value adjustments, net . . . . . . . . . . . . . . |  | 2 |  | - |  | - |
| Investment securities gains, net . . . . . . . | \$ | 255 | \$ | 5 | \$ | 602 |

## (5) Premises and Equipment

A summary of premises and equipment at December 31, 2018 and 2017 is as follows:

| (in thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Land and land improvements | \$ | 9,917 | \$ | 9,980 |
| Buildings and improvements. |  | 35,674 |  | 35,993 |
| Furniture and equipment |  | 14,163 |  | 12,973 |
| Construction in progress |  | 754 |  | 289 |
| Total |  | 60,508 |  | 59,235 |
| $\underline{\text { Less accumulated depreciation }}$ |  | 25,614 |  | 24,424 |
| $\underline{\text { Premises and equipment, net }}$ | \$ | 34,894 | \$ | 34,811 |

Depreciation expense for the years ended December 31, 2018, 2017, and 2016 was as follows:

| (in thousands) | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Depreciation expense. | \$ | 1,797 | \$ | 1,735 | \$ | 1,782 |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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## (6) Intangible Assets

## Mortgage Servicing Rights

At December 31, 2018 and 2017, respectively, the Company serviced mortgage loans for others totaling $\$ 279.9$ million and $\$ 285.8$ million, respectively. Mortgage loan servicing fees earned on loans sold and serviced for others were $\$ 821,000, \$ 833,000$, and $\$ 854,000$, for the years ended December 31, 2018, 2017, and 2016, respectively, and are recorded in real estate servicing fees, net in the consolidated statements of income.

The table below presents changes in mortgage servicing rights (MSRs) for the years ended December 31, 2018, 2017, and 2016.

| (in thousands) | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at beginning of period. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 2,713 | \$ | 2,584 | \$ | 2,847 |
| Originated mortgage servicing rights |  | 245 |  | 222 |  | 266 |
| Changes in fair value: |  |  |  |  |  |  |
| Due to changes in model inputs and assumptions (1) |  | 286 |  | 364 |  | 108 |
| Other changes in fair value (2) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | (313) |  | (457) |  | (637) |
| Total changes in fair value. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | (27) |  | (93) |  | (529) |
| Balance at end of period . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 2,931 | \$ | 2,713 | \$ | 2,584 |

(1) The change in fair value resulting from changes in valuation inputs or assumptions used in the valuation model reflects the change in discount rates and prepayment speed assumptions primarily due to changes in interest rates.
(2) Other changes in fair value reflect changes due to customer payments and passage of time.

Total changes in fair value are reported in real estate servicing fees, net, reported in non-interest income in the Company's consolidated statements of income.

The following key data and assumptions were used in estimating the fair value of the Company's mortgage servicing rights as of December 31, 2018 and 2017:

|  | 2018 | 2017 |
| :---: | :---: | :---: |
| Weighted average constant prepayment rate | 8.87 \% | 9.73 \% |
| Weighted average note rate. | 3.95 \% | 3.85 \% |
| Weighted average discount rate | 10.28 \% | 10.09 \% |
| Weighted average expected life (in years). | 6.30 | 5.90 |

## (7) Deposits

The aggregate amount of time deposits with balances that met or exceeded the Federal Deposit Insurance Corporation (FDIC) insurance limit of $\$ 250,000$ was $\$ 104.9$ million and $\$ 63.2$ million at December 31, 2018 and 2017, respectively. The Company had brokered deposits totaling $\$ 39.8$ million and $\$ 9.8$ million at December 31, 2018 and 2017, respectively.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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The scheduled maturities of total time deposits at December 31, 2018 were as follows:

| (in thousands) |  |  |
| :---: | :---: | :---: |
| Due within: |  |  |
| 2019 | \$ | 198,609 |
| 2020 |  | 43,250 |
| 2021 |  | 34,054 |
| 2022 |  | 29,666 |
| 2023 |  | 15,992 |
| Thereafter |  | - |
| Total | \$ | 321,571 |

The Federal Reserve Bank required the Bank to maintain cash or balances of $\$ 1.8$ million at both December 31, 2018 and 2017, respectively, to satisfy reserve requirements. Average compensating balances held at correspondent banks were $\$ 787,000$ and $\$ 1.5$ million at December 31, 2018 and 2017, respectively. The Bank maintains such compensating balances with correspondent banks to offset charges for services rendered by those banks.

## (8) Federal funds purchased and securities sold under agreements to repurchase

Information relating to federal funds purchased and repurchase agreements is as follows:

| (in thousands) | $\begin{gathered} \hline \text { Year End } \\ \text { Weighted } \\ \text { Rate } \\ \hline \end{gathered}$ | Average Weighted Rate |  | verage alance standing |  | imum ding at nth End |  | ance at nber 31, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2018 |  |  |  |  |  |  |  |  |
| Federal funds purchased | 2.64 \% | 2.29 \% | \$ | 1,242 | \$ | 12,863 | \$ | 8,000 |
| Short-term repurchase agreements - Bank | 0.35 | 0.67 |  | 27,142 |  | 36,103 |  | 16,647 |
| Short-term repurchase agreements - Company . . . . . . . . | - | 3.51 |  | 11,180 |  | 25,944 |  | - |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  | \$ | 39,564 | \$ | 74,910 | \$ | 24,647 |
| 2017 |  |  |  |  |  |  |  |  |
| Federal funds purchased | 1.64 \% | 0.99 \% | \$ | 322 | \$ | 1,067 | \$ | - |
| Short-term repurchase agreements . . . . . . . . . . . . . . . . . . | 0.29 | 0.38 |  | 29,190 |  | 32,555 |  | 27,560 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  | \$ | 29,512 | \$ | 33,622 | \$ | 27,560 |

The securities underlying the agreements to repurchase are under the control of the Bank. All securities sold under agreements to repurchase are secured by a portion of the Bank's investment portfolio. Under agreements with unaffiliated banks, the Bank may borrow federal funds up to $\$ 42.0$ million on an unsecured basis and $\$ 16.4$ million on a secured basis at December 31, 2018.

During 2018, the Company had purchased U.S. Treasury securities with repurchase agreements in order to generate capital gains to offset capital losses expiring in 2018 and 2019. See Note 10 Income taxes for further discussion.

The Company offers a sweep account program whereby amounts in excess of an established limit are "swept" from the customer's demand deposit account on a daily basis into retail repurchase agreements pursuant to individual repurchase agreements between the Company and its customers. Repurchase agreements are agreements to sell securities subject to an obligation to repurchase the same or similar securities. They are accounted for as collateralized financing transactions, not as sales and purchases of the securities portfolio. The securities collateral pledged for the repurchase agreements with customers is maintained by a designated third party custodian. The collateral amounts pledged

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to repurchase agreements by remaining maturity in the table below are limited to the outstanding balances of the related asset or liability; thus amounts of excess collateral are not shown.

| Repurchase Agreements | Remaining Contractual Maturity of the Agreements |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (in thousands) |  | vernight and ntinuous | $\begin{aligned} & \text { Less } \\ & \text { than } \\ & 90 \text { days } \end{aligned}$ |  | $\begin{aligned} & \text { Greater } \\ & \text { than } \\ & \text { 90 days } \end{aligned}$ |  | Total |  |
| At December 31, 2018 |  |  |  |  |  |  |  |  |
| U.S. Treasury | \$ | 1,464 | \$ | - | \$ | - | \$ | 1,464 |
| Government sponsored enterprises |  | 12,976 |  | - |  | - |  | 12,976 |
| Asset-backed securities |  | 2,207 |  | - |  | - |  | 2,207 |
| Total. . | \$ | 16,647 | \$ | - | \$ | - | \$ | 16,647 |

## At December 31, 2017

| U.S. Treasury | \$ | 1,964 | \$ | - | \$ | - | \$ | 1,964 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. government and federal agency obligations. |  | 2,977 |  | - |  | - |  | 2,977 |
| Government sponsored enterprises. |  | 8,382 |  | - |  | - |  | 8,382 |
| Asset-backed securities |  | 14,237 |  | - |  | - |  | 14,237 |
| Total. | \$ | 27,560 | \$ | - | \$ | - | \$ | 27,560 |

## (9) Borrowings

Federal Home Loan Bank and other borrowings of the Company consisted of the following:

|  |  |  | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (in thousands) | Borrower | Maturity Date | Year End Balance | Year End <br> Weighted <br> Rate | Year End Balance | Year End <br> Weighted <br> Rate |
| FHLB advances . | The Bank | 2018 | \$ | - \% | \$ 63,226 | 1.65 \% |
|  |  | 2019 | 28,231 | 1.63 \% | 28,231 | 1.63 \% |
|  |  | 2020 | 42,236 | 2.49 \% | 21,236 | 1.90 \% |
|  |  | 2021 | 20,241 | 2.77 \% | 4,241 | 1.73 \% |
|  |  | 2022 | 4,418 | 2.14 \% | 4,418 | 2.14 \% |
|  |  | 2023 | - | - \% | - | - \% |
| Other borrowings. . . . . . . . . . |  | 2022 | 27 | 4.00 \% | 30 | 4.00 \% |
| Total Bank . . . . . . . . . . . . . |  |  | \$ 95,153 |  | \$ 121,382 |  |
| Subordinated notes | The Company | 2034 | \$ 25,774 | 5.49 \% | \$ 25,774 | 4.30 \% |
|  |  | 2035 | 23,712 | 4.62 \% | 23,712 | 3.43 \% |
| Total Company . . . . . . . . |  |  | \$ 49,486 |  | \$ 49,486 |  |

The Bank is a member of the Federal Home Loan Bank of Des Moines (FHLB) and has access to term financing from the FHLB. These borrowings, which are all fixed rate, are secured under a blanket agreement which assigns all investment in FHLB stock, as well as qualifying first mortgage loans as collateral to secure amounts borrowed by the Bank. As of December 31, 2018, the Bank had $\$ 95.2$ million in outstanding borrowings with the FHLB. Based upon the collateral pledged to the FHLB at December 31, 2018, the Bank could borrow up to an additional $\$ 126.5$ million under the agreement.

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On March 17, 2005, Exchange Statutory Trust II, a business trust and subsidiary of the Company, issued $\$ 23.0$ million of 30 -year floating rate Trust Preferred Securities (TPS) to a TPS Pool. The floating rate is equal to a three-month LIBOR rate plus $1.83 \%$ and reprices quarterly $(4.62 \%$ at December 31, 2018). The TPS can be prepaid without penalty at any time after five years from the issuance date.

The TPS represent preferred interests in the trust. The Company invested approximately $\$ 712,000$ in common interests in the trust and the purchaser in the private placement purchased $\$ 23.0$ million in preferred interests. The proceeds were used by the trust to purchase from the Company its 30-year deeply subordinated debentures whose terms mirror those stated above for the TPS. The debentures are guaranteed by the Company pursuant to a subordinated guarantee. Distributions on the TPS are payable quarterly on March 17, June 17, September 17, and December 17 of each year that the TPS are outstanding. The trustee for the TPS holders is U.S. Bank, N.A. The trustee does not have the power to take enforcement action in the event of a default under the TPS for five years from the date of default. In the event of default, however, the Company would be precluded from paying dividends until the default is cured.

On March 17, 2004, Exchange Statutory Trust I, a business trust and subsidiary of the Company issued $\$ 25.0$ million of floating rate TPS to a TPS Pool. The floating rate is equal to the three-month LIBOR rate plus $2.70 \%$ and reprices quarterly ( $5.49 \%$ at December 31 , 2018). The TPS are fully, irrevocably, and unconditionally guaranteed on a subordinated basis by the Company.

The TPS represent preferred interests in the trust. The Company invested approximately $\$ 774,000$ in common interests in the trust and the purchaser in the private placement purchased $\$ 25.0$ million in preferred interests. The proceeds of the TPS were invested in junior subordinated debentures of the Company. Distributions on the TPS are payable quarterly on March 17, June 17, September 17, and December 17 of each year that the TPS are outstanding. The TPS mature on March 17, 2034. That maturity date may be shortened if certain conditions are met.

The Exchange Statutory Trusts are not consolidated in the Company's financial statements. Accordingly, the Company does not report the securities issued by the Exchange Statutory Trusts as liabilities, and instead reports the subordinated notes issued by the Company and held by the Exchange Statutory Trusts as liabilities. The amount of the subordinated notes as of December 31, 2018 and 2017 was $\$ 49.5$ million, respectively. The Company has recorded the investments in the common securities issued by the Exchange Statutory Trusts aggregating $\$ 1.4$ and $\$ 1.5$ million at December 31,2018 and 2017, respectively, and the corresponding obligations under the subordinated notes, as well as the interest income and interest expense on such investments and obligations in its consolidated financial statements.

## (10) Income Taxes

The composition of income tax expense for the years ended December 31, 2018, 2017, and 2016 was as follows:

| (in thousands) |  | 2018 |  | 2017 |  | 2016 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current: |  |  |  |  |  |  |
| Federal. | \$ | 1,175 | \$ | 2,761 | \$ | 3,578 |
| State . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | (181) |  | 385 |  | 489 |
| Total current . . . . . . . . . . . . . . . |  | 994 |  | 3,146 |  | 4,067 |
| Deferred: |  |  |  |  |  |  |
| Federal. |  | 674 |  | 3,189 |  | (267) |
| State . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | - |  | 1,567 |  | (50) |
| Total deferred . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 674 |  | 4,756 |  | (317) |
| Total income tax expense . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 1,668 | \$ | 7,902 | \$ | 3,750 |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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Applicable income tax expense for financial reporting purposes differs from the amount computed by applying the statutory federal income tax rate for the reasons noted in the table for the years ended December 31, 2018, 2017, and 2016 are as follows:

|  | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (in thousands) | Amount | \% | Amount | \% | Amount | \% |
| Income before provision for income tax expense . . . . . . . . . . . . . . | \$ 12,382 |  | \$ 11,316 |  | \$ 11,032 |  |
| Tax at statutory federal income tax rate | \$ 2,600 | 21.00 \% | \$ 3,847 | 34.00 \% | \$ 3,751 | 34.00 \% |
| Tax Cuts and Jobs Act . | (343) | (2.77) | 3,139 | 27.74 | - | - |
| State restructuring | (143) | (1.16) | 966 | 8.54 | - | - |
| Tax-exempt income, net | (432) | (3.49) | (394) | (3.48) | (314) | (2.85) |
| State income tax, net of federal tax benefit | - | - | 323 | 2.85 | 290 | 2.63 |
| Other, net . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | (14) | (0.11) | 21 | 0.18 | 23 | 0.21 |
| Provision for income tax expense . . . . . . . . . . . . . . . . . . . . . . . | \$ 1,668 | 13.47 \% | \$ 7,902 | 69.83 \% | \$ 3,750 | 33.99 \% |

Income taxes as a percentage of earnings before income taxes as reported in the consolidated financial statements were $13.5 \%$ for the year ended December 31, 2018 compared to $69.8 \%$ and $34.0 \%$ for the years ended December 31, 2017 and 2016, respectively. As further described below, the decrease in the effective tax rate in 2018 over 2017 and 2016 is primarily due to a decrease in the federal corporate tax rate, the release of the valuation allowance related to capital losses, a pension contribution made during the second quarter of 2018 that was attributable to the 2017 plan year, and the Company's additional tax planning initiatives.

The federal corporate income tax rate declined from $34 \%$ to $21 \%$ effective January 1, 2018 as a result of the Tax Cuts and Jobs Act, (Tax Act). The Company's tax rate is lower than the federal statutory rate primarily as a result of tax-exempt income, the release of the valuation allowance related to capital loss carryforwards, and a pension contribution made during the second quarter of 2018 that was attributable to the 2017 plan year, and the Company's additional tax planning initiatives. The provisional adjustments recorded in the fourth quarter of 2017 related to the enactment of the Tax Act were finalized during the third quarter of 2018 with the filing of the Company's 2017 tax return, within the one-year measurement period provided under Staff Accounting Bulletin No. 118 in regards to the application of FASB's ASC Topic 740, Income Taxes. The finalization of the Company's Tax Act adjustments included a $\$ 343,000$ benefit, while the Company's additional tax planning initiatives included a $\$ 143,000$ benefit. The total benefits are comprised of $\$ 306,000$ benefit attributable to the pension contribution discussed above and a $\$ 180,000$ benefit attributable to various accounting method changes made on the Company's 2017 tax return. Such adjustments were recorded in the second and third quarters of 2018 respectively.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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The components of deferred tax assets and deferred tax liabilities at December 31, 2018 and 2017 were as follows:

| (in thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Deferred tax assets: |  |  |  |  |
| Allowance for loan losses. | \$ | 2,285 | \$ | 2,279 |
| Impairment of other real estate owned |  | 630 |  | 672 |
| Goodwill |  | 227 |  | 409 |
| Available-for-sale securities. |  | 895 |  | 664 |
| Nonaccrual loan interest. |  | 119 |  | 167 |
| Core deposit intangible. |  | 90 |  | 160 |
| Pension. |  | 1,516 |  | 1,669 |
| Deferred compensation. |  | 160 |  | 87 |
| Other . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 282 |  | 257 |
| Total deferred tax assets. . . . . . . . . . . . . | \$ | 6,204 | \$ | 6,364 |
| Deferred tax liabilities: |  |  |  |  |
| Premises and equipment. | \$ | 483 | \$ | 333 |
| Mortgage servicing rights. |  | 616 |  | 570 |
| Deferred loan costs . |  | 261 |  | - |
| Accelerated prepaids. |  | 321 |  | 356 |
| Other . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 10 |  | 34 |
| Total deferred tax liabilities. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 1,691 |  | 1,293 |
| Net deferred tax assets . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 4,513 | \$ | 5,071 |

The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income of the appropriate character during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning initiatives in making this assessment. In management's opinion, the Company will more likely than not realize the benefits of its deferred tax assets and, therefore, has not established a valuation allowance against its deferred tax assets as of December 31, 2018. Management arrived at this conclusion based upon the level of historical taxable income and projections for future taxable income of the appropriate character over the periods in which the deferred tax assets are deductible. As indicated above, the Company released a $\$ 46,000$ valuation allowance against certain capital loss carryforwards during the second quarter of 2018 as a result of the execution of certain tax planning initiatives that generated sufficient capital gain income prior to the expiration of the carryforwards.

The Company follows ASC Topic 740, Income Taxes, which addresses the accounting for uncertain tax positions. For each of the years ended December 31, 2018 and 2017, respectively, the Company did not have any uncertain tax provisions, and did not record any related tax liabilities.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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## (11) Stockholders' Equity

## Accumulated Other Comprehensive Loss

The following details the change in the components of the Company's accumulated other comprehensive loss for the years ended December 31, as indicated.

| (in thousands) | Unrealized Loss on Securities (1) |  | Unrecognized Net Pension and Postretirement Costs (2) |  | $\qquad$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance, December 31, 2016 | \$ | $(1,936)$ | \$ | $(1,865)$ | \$ | $(3,801)$ |
| Other comprehensive (loss) income, before reclassifications |  | (37) |  | 90 |  | 53 |
| Amounts reclassified from accumulated other comprehensive loss |  | (5) |  | $(1,085)$ |  | $(1,090)$ |
| Other comprehensive loss, before tax |  | (42) |  | (995) |  | $(1,037)$ |
| Income tax benefit |  | 16 |  | 378 |  | 394 |
| Other comprehensive loss, net of tax |  | (26) |  | (617) |  | (643) |
| Amounts reclassified from accumulated other comprehensive loss per ASU 2018-02 (3) |  | (538) |  | (680) |  | $(1,218)$ |
| Balance, December 31, 2017 | \$ | $(2,500)$ | \$ | $(3,162)$ | \$ | $(5,662)$ |
| Other comprehensive (loss) income, before reclassifications |  | $(1,209)$ |  | 219 |  | (990) |
| Amounts reclassified from accumulated other comprehensive loss. |  | - |  | 436 |  | 436 |
| Other comprehensive (loss) income, before tax. |  | $(1,209)$ |  | 655 |  | (554) |
| Income tax benefit (expense). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 254 |  | (137) |  | 117 |
| Other comprehensive (loss) income, net of tax |  | (955) |  | 518 |  | (437) |
| Balance, December 31, 2018 | \$ | $(3,455)$ | \$ | $(2,644)$ | \$ | $(6,099)$ |

(1) The pre-tax amounts reclassified from accumulated other comprehensive loss are included in gain on sale of investment securities in the consolidated statements of income.
(2) The pre-tax amounts reclassified from accumulated other comprehensive income are included in the computation of net periodic pension cost. See Note 12.
(3) As of December 31, 2017, the Company elected to early adopt and retrospectively apply the reclassification of stranded income tax effects from accumulated other comprehensive loss to retained earnings, as permitted under ASU 2018-02.

## (12) Employee Benefit Plans

Employee benefits charged to operating expenses are summarized in the table below for the years ended December 31, as indicated.

| (in thousands) | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Payroll taxes | \$ | 1,156 | \$ | 1,167 | \$ | 1,122 |
| Medical plans |  | 2,109 |  | 2,026 |  | 1,881 |
| 401k match and profit sharing |  | 956 |  | 873 |  | 825 |
| Periodic pension cost |  | 1,707 |  | 1,344 |  | 1,179 |
| Other |  | 67 |  | 82 |  | 172 |
| Total employee benefits. . . | \$ | 5,995 | \$ | 5,492 | \$ | 5,179 |

The Company's profit-sharing plan includes a matching $401(\mathrm{k})$ portion, in which the Company matches the first $3 \%$ of eligible employee contributions. The Company made annual contributions in an amount up to $6 \%$ of income before income taxes and before contributions to the profit-sharing and pension plans for all participants, limited to the maximum amount deductible for federal income tax purposes, for each of the periods shown. In addition, employees were able to make additional tax-deferred contributions.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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## Other Plans

On November 7, 2018, the Board of Directors of the Company adopted a supplemental executive retirement plan (SERP) which became effective on January 1, 2018. The SERP provides select employees who satisfy certain eligibility requirement with certain benefits upon retirement, termination of employment or death.

As of the year ended December 31, 2018, the accrued liability and expense for this plan was $\$ 320,000$, and is recognized over the required service period.

## Pension

The Company provides a noncontributory defined benefit pension plan for all full-time employees. An employer is required to recognize the funded status of a defined benefit postretirement plan as an asset or liability in its balance sheet and to recognize changes in that funded status in the year in which the changes occur through comprehensive income. Under the Company's funding policy for the defined benefit pension plan, contributions are made to a trust as necessary to provide for current service and for any unfunded accrued actuarial liabilities over a reasonable period. To the extent that these requirements are fully covered by assets in the trust, a contribution might not be made in a particular year. The Company made a pension contribution in the amount of $\$ 1.8$ million on May 10, 2018. There was no 2019 minimum required contribution for the 2018 plan year, and the Company has not determined if will make more than the minimum required contribution. Effective July 1, 2017, the Company amended the pension plan to effectuate a "soft freeze" such that no individual hired (or rehired in the case of a former employee) by the Company after September 30, 2017, whether or not such individual is or was a vested member in the plan, will be eligible to be an active member and be entitled to accrue any benefits under the plan.

## Obligations and Funded Status at December 31,

| (in thousands) |  | 2018 |  | 2017 |
| :---: | :---: | :---: | :---: | :---: |
| Change in projected benefit obligation: |  |  |  |  |
| Balance, January 1. | \$ | 27,871 | \$ | 23,234 |
| Service cost |  | 1,707 |  | 1,343 |
| Interest cost |  | 1,037 |  | 1,009 |
| Actuarial (gain) loss |  | $(3,122)$ |  | 2,843 |
| Benefits paid . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | (601) |  | (558) |
|  | \$ | 26,892 | \$ | 27,871 |
| Change in plan assets: |  |  |  |  |
| Fair value, January 1 | \$ | 19,924 | \$ | 16,502 |
| Actual return on plan assets |  | $(1,329)$ |  | 2,890 |
| Employer contribution |  | 1,800 |  | 1,183 |
| Expenses paid |  | (122) |  | (93) |
| Benefits paid . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | (601) |  | (558) |
| Fair value, December 31, . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 19,672 | \$ | 19,924 |
| Funded status at end of year . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | $(7,220)$ | \$ | $(7,947)$ |
| Accumulated benefit obligation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 21,244 | \$ | 21,940 |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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## Components of Net Pension Cost and Other Amounts Recognized in Accumulated Other Comprehensive Income

The following items are components of net pension cost for the years ended December 31, as indicated:

| (in thousands) | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Service cost - benefits earned during the year. | \$ | 1,707 | \$ | 1,343 | \$ | 1,179 |
| Interest costs on projected benefit obligations (a). |  | 1,037 |  | 1,009 |  | 956 |
| Expected return on plan assets (a) |  | $(1,327)$ |  | $(1,127)$ |  | $(1,057)$ |
| Expected administrative expenses (a) |  | 93 |  | 88 |  | 70 |
| Amortization of prior service cost (a) |  | 79 |  | 79 |  | 79 |
| Amortization of unrecognized net loss (a). . . . . . . |  | 140 |  | 11 |  | - |
| Net periodic pension cost | \$ | 1,729 | \$ | 1,403 | \$ | 1,227 |

(a) The components of net periodic pension cost other than the service cost component are included in other non-interest expense.

Net periodic pension benefit costs include interest costs based on an assumed discount rate, the expected return on plan assets based on actuarially derived market-related values, and the amortization of net actuarial losses. Net periodic postretirement benefit costs include service costs, interest costs based on an assumed discount rate, and the amortization of prior service credits and net actuarial gains. Differences between expected and actual results in each year are included in the net actuarial gain or loss amount, which is recognized in other comprehensive income. The net actuarial gain or loss in excess of a $10 \%$ corridor is amortized in net periodic benefit cost over the average remaining service period of active participants in the Plans. The prior service credit is amortized over the average remaining service period to full eligibility for participating employees expected to receive benefits.

Amounts not yet reflected in net periodic benefit cost and included in accumulated other comprehensive loss at December 31, 2018 and 2017 are shown below, including amounts recognized in other comprehensive income during the periods. All amounts are shown on a pre-tax basis.

| (in thousands) | 2018 |  | 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Prior service costs | \$ | (128) | \$ | (207) |
| Net accumulated actuarial net loss |  | $(3,219)$ |  | $(3,796)$ |
| Accumulated other comprehensive loss. |  | $(3,347)$ |  | $(4,003)$ |
| Net periodic benefit cost in excess of cumulative employer contributions. |  | $(3,873)$ |  | $(3,944)$ |
| Net amount recognized at December 31, balance sheet . | \$ | $(7,220)$ | \$ | $(7,947)$ |
| Net gain (loss) arising during period | \$ | 436 | \$ | 1,085) |
| Prior service cost amortization |  | 79 |  | 79 |
| Amortization of net actuarial loss |  | 140 |  | 11 |
| Total recognized in other comprehensive loss . . . . . . . . . . . . . . . . . . . . | \$ | 655 | \$ | (995) |
| Total recognized in net periodic pension cost and other comprehensive income | \$ | 1,073 | \$ | 2,398 |

Assumptions utilized to determine benefit obligations as of December 31, 2018, 2017 and 2016 and to determine pension expense for the years then ended are as follows:

|  | 2018 | 2017 | 2016 |
| :---: | :---: | :---: | :---: |
| Determination of benefit obligation at year end: |  |  |  |
| Discount rate | 4.40 \% | 3.75 \% | 4.40 \% |
| Annual rate of compensation increase. | 4.00 \% | 4.00 \% | 4.00 \% |
| Determination of pension expense for year ended: |  |  |  |
| Discount rate for the service cost. | 3.75 \% | 4.40 \% | 4.70 \% |
| Annual rate of compensation increase. | 4.00 \% | 4.00 \% | 3.78 \% |
| Expected long-term rate of return on plan assets | 6.75 \% | 6.75 \% | 7.00 \% |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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The assumed overall expected long-term rate of return on pension plan assets used in calculating 2018 pension expense was $6.75 \%$. Determination of the plan's rate of return is based upon historical returns for equities and fixed income indexes. During the past five years, the Company's plan assets have experienced the following annual returns: $-6.2 \%$ in $2018,17.4 \%$ in $2017,8.2 \%$ in $2016,-0.4 \%$ in 2015 , and $8.3 \%$ in 2014. The rate used in plan calculations may be adjusted by management for current trends in the economic environment. With a traditional investment mix of over half of the plan's investments in equities, the actual return for any one plan year may fluctuate significantly with changes in the stock market. Primarily due to an increase in the discount rate used in the actuarial calculation of plan income, the Company expects to incur $\$ 1.5$ million of expense in 2019 compared to $\$ 1.7$ million 2018.

## Plan Assets

The investment policy of the pension plan is designed for growth in value while minimizing risk to the overall portfolio. The Company diversifies the assets through investments in domestic fixed income securities and domestic and international equity securities. The assets are readily marketable and can be sold to fund benefit payment obligations as they become payable. The Company regularly reviews its policies on the investment mix and may make changes depending on economic conditions and perceived investment mix.

The fair value of the Company's pension plan assets at December 31, 2018 and 2017 by asset category was as follows:

|  | Fair Value | Fair Value Measurements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (in thousands) |  | Quoted Prices in Active Markets for Identical Assets (Level 1) |  | Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
| December 31, 2018 |  |  |  |  |  |
| Cash equivalents | \$ 707 | \$ | 707 | \$ - \$ | - |
| U.S gov't agency obligations | 1,777 |  | - | 1,777 | - |
| Corporate bonds | 295 |  | - | 295 | - |
| Mutual funds . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 16,893 |  | 16,893 | - | - |
| Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 19,672 | \$ | 17,600 | \$ 2,072 \$ | - |
| December 31, 2017 |  |  |  |  |  |
| Cash equivalents | \$ 1,307 | \$ | 1,307 | \$ - \$ | - |
| U.S gov't agency obligations | 1,781 |  | - | 1,781 | - |
| Mutual funds . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 16,836 |  | 16,836 | - | - |
| Total . . . . . . . | \$ 19,924 | \$ | 18,143 | \$ 1,781 \$ | - |

The following future benefit payments are expected to be paid:

| Year | Pension benefits |  |
| :---: | :---: | :---: |
| (in thousands) |  |  |
| 2019 | \$ | 680 |
| 2020 |  | 801 |
| 2021 |  | 874 |
| 2022 |  | 1,026 |
| 2023 |  | 1,052 |
| $\underline{2024 \text { to } 2028}$ |  | 6,370 |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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## (13) Stock Compensation

The Company has one equity compensation plan for its employees pursuant to which options were granted.
The following table summarizes the Company's stock option activity:

|  | Number of shares December 31, |  |  | Weighted average exercise price December 31, |  |  | Weighted average Contractual Term (in years) |  |  | $\qquad$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 | 2017 | 2016 | 2018 | 2017 | 2016 | 2018 | 2017 | 2016 |  |  |  | 2017 |  | 2016 |
| Outstanding, beginning of year. | 20,909 | 48,097 | 70,616 | \$ 14.20 | \$ 18.59 | \$ 19.12 |  |  |  |  |  |  |  |  |  |
| Granted. |  | - | - | - | - | - |  |  |  |  |  |  |  |  |  |
| Exercised | $(20,909)$ | - | - | 14.20 | - | - |  |  |  |  |  |  |  |  |  |
| Forfeited or expired. . . . . . . . . . . . . . | - | $(27,188)$ | $(22,519)$ | - | 21.20 | 20.24 |  |  |  |  |  |  |  |  |  |
| Outstanding, end of year . . . . . . . . . | - | 20,909 | 48,097 | \$ | \$ 14.20 | \$ 18.59 | 0.00 | 0.73 | 0.99 | \$ | 0 | \$ | 120,242 |  | \$ 49,842 |
| Exercisable, end of year. . . . . . . . . . . | - | 20,909 | 46,725 | \$ - | \$ 14.20 | \$ 18.72 | 0.00 | 0.73 | 0.97 | \$ | 0 | \$ | 120,242 |  | \$ 46,874 |

Options have been adjusted to reflect a 4\% stock dividend paid on July 1, 2018.
Total stock-based compensation expense for the years ended December 31, 2018, 2017, and 2016 was zero, $\$ 3,000$, and $\$ 17,000$, respectively. There is no remaining unrecognized compensation expense related to non-vested stock awards. The Plan expired on February 28, 2010, except as to outstanding options under the Plan, and no further options may be granted pursuant to the Plan. During the third quarter of 2018 , the remaining 20,909 options to purchase common shares were exercised at a weighted average price of $\$ 14.20$ a share.

## (14) Earnings per Share

Stock Dividend On July 1, 2018, the Company paid a special stock dividend of four percent to common shareholders of record at the close of business on June 15, 2018. For all periods presented, share information, including basic and diluted earnings per share, has been adjusted retroactively to reflect this change.

Basic earnings per share is computed by dividing income available to common shareholders by the weighted average number of common shares outstanding during the year. Diluted earnings per share gives effect to all dilutive potential common shares that were outstanding during the year.

Presented below is a summary of the components used to calculate basic and diluted earnings per common share, which have been restated for all stock dividends.

| (dollars in thousands, except per share data) | 2018 |  | 2017 |  | 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Basic earnings per share: |  |  |  |  |  |  |
| Net income available to shareholders . | \$ | 10,714 | \$ | 3,414 | \$ | 7,282 |
| Basic earnings per share . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 1.78 | \$ | 0.56 | \$ | 1.19 |
| Diluted earnings per share: |  |  |  |  |  |  |
| Net income available to shareholders | \$ | 10,714 | \$ | 3,414 | \$ | 7,282 |
| Average shares outstanding. |  | 6,026,971 |  | 6,057,920 |  | 6,095,727 |
| Effect of dilutive stock options |  | 5,042 |  | 5,497 |  | - - |
| Average shares outstanding including dilutive stock options . . . . . . . . . . . . . . . . . . . |  | 6,032,013 |  | 6,063,417 |  | 6,095,727 |
| Diluted earnings per share . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ | 1.78 | \$ | 0.56 | \$ | 1.19 |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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Under the treasury stock method, outstanding stock options are dilutive when the average market price of the Company's common stock, when combined with the effect of any unamortized compensation expense, exceeds the option price during the period, except when the Company has a loss from continuing operations available to common shareholders. In addition, proceeds from the assumed exercise of dilutive options along with the related tax benefit are assumed to be used to repurchase common shares at the average market price of such stock during the period.

The following options to purchase shares during the years ended December 31, 2018, 2017 and 2016 were not included in the respective computations of diluted earnings per share because the exercise price of the option, when combined with the effect of the unamortized compensation expense, was greater than the average market price of the common shares and were considered anti-dilutive.


Repurchase Program The Company's share repurchase plan expired on September 8, 2018. As of December 31, 2018, the Company had repurchased a total of 95,709 shares of common stock pursuant to the plan at an average price of $\$ 17.90$ per share, including 8,668 shares of common stock repurchased pursuant to the plan during the year ended December 31, 2018 at an average price of $\$ 20.63$ per share.

## (15) Capital Requirements

The Company and the Bank are subject to various regulatory capital requirements administered by federal and state 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 Company's consolidated financial statements. Under capital adequacy guidelines, the Company and the Bank must meet specific capital guidelines that involve quantitative measures of assets, liabilities, and certain off-balance-sheet items as calculated under regulatory accounting practices. The capital amounts and classification of the Company and the Bank are subject to qualitative judgments by the regulators about components, risk-weightings, and other factors.

In July 2013, the federal banking agencies issued final rules to implement the Basel III regulatory capital reforms and changes required by the Dodd-Frank Act. The phase-in period for the Company began on January 1, 2015. The Federal Reserve System's (FRB) capital adequacy guidelines require that bank holding companies maintain a Common Equity Tier 1 risk-based capital ratio equal to at least $4.5 \%$ of its risk-weighted assets, a Tier 1 risk-based capital ratio equal to at least $6 \%$ of its risk-weighted assets and a total risk-based capital ratio equal to at least $8 \%$ of its risk-weighted assets. In addition, bank holding companies generally are required to maintain a Tier 1 leverage ratio of at least $4 \%$.

In addition, the final rules establish a common equity tier 1 capital conservation buffer of $2.5 \%$ of risk-weighted assets applicable to all banking organizations. Institutions that do not maintain the required capital buffer will become subject to progressively more stringent limitations on the percentage of earnings that can be paid out in dividends or used for stock repurchases and on the payment of discretionary bonuses to senior executive management. The capital conservation buffer requirement will be phased in over four years beginning in 2016. On January 1, 2016, the first phase of the requirement went into effect at $0.625 \%$ of risk-weighted assets, and the requirement will increase each subsequent year by an additional 0.625 percentage points, to reach its final level of $2.5 \%$ of risk weighted assets on January 1 , 2019. Once fully phase in , the capital conservation buffer requirement effectively raises the minimum required risk-based capital ratios to $7 \%$ Common Equity Tier 1 Capital, $8.5 \%$ Tier 1 Capital and $10.5 \%$ Total Capital on a fully phased-in basis.

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December 31, 2018, 2017, and 2016
Under the Basel III requirements, at December 31, 2018 and December 31, 2017, the Company met all capital adequacy requirements and had regulatory capital ratios in excess of the levels established for well-capitalized institutions, as shown in the following table as of periods indicated:

|  | Actual |  | Required for Capital Adequacy Purposes |  | Well-Capitalized Under Prompt Corrective Action Provision |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (in thousands) | Amount | Ratio | Amount | Ratio |  | Amount | Ratio |
| December 31, 2018 |  |  |  |  |  |  |  |
| Total Capital (to risk-weighted assets): |  |  |  |  |  |  |  |
| Company. | \$ 165,325 | 13.28 \% | \$ 99,578 | 8.00 \% | \$ | N.A. | N.A. \% |
| Bank | 163,814 | 13.19 | 99,327 | 8.00 |  | 124,159 | 10.00 |
| Tier 1 Capital (to risk-weighted assets): |  |  |  |  |  |  |  |
| Company. | \$ 139,532 | 11.21 \% | \$ 74,683 | 6.00 \% | \$ | N.A. | N.A. \% |
| Bank | 152,002 | 12.24 | 74,495 | 6.00 |  | 99,327 | 8.00 |
| Common Equity Tier 1 Capital (to risk-weighted assets) |  |  |  |  |  |  |  |
| Company. | \$ 105,513 | 8.48 \% | \$ 56,013 | 4.50 \% | \$ | N.A. | N.A. \% |
| Bank | 152,002 | 12.24 | 55,872 | 4.50 |  | 80,703 | 6.50 |
| Tier 1 leverage ratio: |  |  |  |  |  |  |  |
| Company. | \$ 139,532 | 9.55 \% | \$ 58,467 | 4.00 \% | \$ | N.A. | N.A. \% |
| Bank | 152,002 | 10.43 | 58,272 | 4.00 |  | 72,839 | 5.00 |
| (in thousands) |  |  |  |  |  |  |  |
| December 31, 2017 |  |  |  |  |  |  |  |
| Total Capital (to risk-weighted assets): |  |  |  |  |  |  |  |
| Company. | \$ 156,045 | 12.93 \% | \$ 96,577 | 8.00 \% | \$ | N.A. | N.A. \% |
| Bank | 154,495 | 12.83 | 96,326 | 8.00 |  | 120,408 | 10.00 |
| Tier 1 Capital (to risk-weighted assets): |  |  |  |  |  |  |  |
| Company. | \$ 129,369 | 10.72 \% | \$ 72,433 | 6.00 \% | \$ | N.A. | N.A. \% |
| Bank | 143,483 | 11.92 | 72,245 | 6.00 |  | 96,326 | 8.00 |
| Common Equity Tier 1 Capital (to risk-weighted assets) |  |  |  |  |  |  |  |
| Company. | \$ 97,033 | 8.04 \% | \$ 54,325 | 4.50 \% | \$ | N.A. | N.A. \% |
| Bank . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 143,483 | 11.92 | 54,184 | 4.50 |  | 78,265 | 6.50 |
| Tier 1 leverage ratio: |  |  |  |  |  |  |  |
| Company... | \$ 129,369 | 9.33 \% | \$ 55,488 | 4.00 \% | \$ | N.A. | N.A. \% |
| Bank . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 143,483 | 10.38 | 55,315 | 4.00 |  | 69,144 | 5.00 |

## (16) Fair Value Measurements

Fair value represents the amount expected to be received to sell an asset or paid to transfer a liability in its principal or most advantageous market in an orderly transaction between market participants at the measurement date.

Depending on the nature of the asset or liability, the Company uses various valuation methodologies and assumptions to estimate fair value. The measurement of fair value under US GAAP uses a hierarchy intended to maximize the use of observable inputs and minimize the use of unobservable inputs.

The fair value hierarchy uses three levels of inputs to measure the fair value of assets and liabilities as follows:
Level 1 - Inputs are unadjusted quoted prices for identical assets or liabilities in active markets.

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Level 2 - Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. These might include quoted prices for similar assets and liabilities in active markets, such as interest rates and yield curves that are observable at commonly quoted intervals.

Level 3 - Inputs are unobservable inputs for the asset or liability and significant to the fair value. These may be internally developed using the Company's best information and assumptions that a market participant would consider.

ASC Topic 820 also provides guidance on determining fair value when the volume and level of activity for the asset or liability have significantly decreased and on identifying circumstances when a transaction may not be considered orderly.

The Company is required to disclose assets and liabilities measured at fair value on a recurring basis separate from those measured at fair value on a nonrecurring basis. Nonfinancial assets measured at fair value on a nonrecurring basis would include foreclosed real estate, long-lived assets, and core deposit intangible assets, which are reviewed when circumstances or other events indicate that impairment may have occurred.

## Valuation methods for instruments measured at fair value on a recurring basis

Following is a description of the Company's valuation methodologies used for assets and liabilities recorded at fair value on a recurring basis:

## Available-for-sale securities

The fair value measurements of the Company's investment securities are determined by a third party pricing service which considers observable data that may include dealer quotes, market spreads, cash flows, the U.S. Treasury yield curve, live trading levels, trade execution data, market consensus prepayment speeds, credit information and the bond's terms and conditions, among other things. The fair value measurements are subject to independent verification to another pricing source by management each quarter for reasonableness.

## Mortgage servicing rights

The fair value of mortgage servicing rights is based on the discounted value of estimated future cash flows utilizing contractual cash flows, servicing rates, constant prepayment rate, servicing cost, and discount rate factors. Accordingly, the fair value is estimated based on a valuation model that calculates the present value of estimated future net servicing income. The model incorporates assumptions that market participants use in estimating future net servicing income, including estimates of prepayment speeds, market discount rates,

# HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES 

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cost to service, float earnings rates, and other ancillary income, including late fees. The valuation models estimate the present value of estimated future net servicing income. The Company classifies its servicing rights as Level 3.

| (in thousands) | Fair Value | Fair Value Measurements |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quoted Prices in Active Markets for Identical Assets (Level 1) |  | Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |  |
| December 31, 2018 |  |  |  |  |  |  |
| Assets: |  |  |  |  |  |  |
| U.S. Treasury | \$ 1,952 | \$ | 1,952 | - | \$ | - |
| U.S. government and federal agency obligations | 9,966 |  | - | 9,966 |  | - |
| Government sponsored enterprises . | 43,335 |  | - | 43,335 |  | - |
| Obligations of states and political subdivisions. | 40,386 |  | - | 40,386 |  | - |
| Mortgage-backed securities. | 118,192 |  | - | 118,192 |  | - |
| Other debt securities | 3,000 |  | - | 3,000 |  | - |
| Bank-issued trust preferred securities. | 1,374 |  | - | 1,374 |  | - |
| Equity securities. | 12 |  | - | 12 |  | - |
| Mortgage servicing rights . . . . . . . . . . . . . . . . . | 2,931 |  | - | - |  | 2,931 |
| Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 221,148 | \$ | 1,952 | \$ 216,265 | \$ | 2,931 |

## December 31, 2017

| Assets: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasury | \$ 1,967 | \$ | 1,967 | - | \$ | - |
| U.S. government and federal agency obligations | 12,073 |  | - | 12,073 |  | - |
| Government sponsored enterprises | 36,897 |  | - | 36,897 |  | - |
| Obligations of states and political subdivisions | 46,656 |  | - | 46,656 |  | - |
| Mortgage-backed securities. | 128,949 |  | - | 128,949 |  | - |
| Other debt securities | 3,000 |  | - | 3,000 |  | - |
| Bank-issued trust preferred securities. | 1,486 |  | - | 1,486 |  | - |
| Equity securities. | 10 |  | - | 10 |  | - |
| Mortgage servicing rights . . . . . . . . . . . . . . . . . . . . . | 2,713 |  | - | - |  | 2,713 |
| Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 233,751 | \$ | 1,967 | \$ 229,071 | \$ | 2,713 |

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The changes in Level 3 assets and liabilities measured at fair value on a recurring basis are summarized as follows:
$\left.\begin{array}{ll} & \begin{array}{c}\text { Fair Value Measurements Using } \\ \text { Significant } \\ \text { Unobservable Inputs } \\ \text { (Level 3) }\end{array} \\ \text { (in thousands) }\end{array}\right)$

## Valuation methods for instruments measured at fair value on a nonrecurring basis

Following is a description of the Company's valuation methodologies used for assets and liabilities recorded at fair value on a nonrecurring basis:

## Collateral dependent impaired loans

While the overall loan portfolio is not carried at fair value, the Company periodically records nonrecurring adjustments to the carrying value of impaired loans based on fair value measurements for partial charge-offs of the uncollectible portions of those loans. Nonrecurring adjustments also include certain impairment amounts for collateral dependent loans when establishing the allowance for loan losses. Such amounts are generally based on the fair value of the underlying collateral supporting the loan. In determining the fair value of real estate collateral, the Company relies on external and internal appraisals of property values depending on the size and complexity of the real estate collateral. The appraisals may be discounted based on the Company's historical knowledge, changes in market conditions from the time of appraisal, or other information available. The Company maintains staff that is trained to perform in-house evaluations and also review third party appraisal reports for reasonableness. In the case of non-real estate collateral, reliance is placed on a variety of sources, including external estimates of value and judgments based on the experience and expertise of internal specialists. Fair values of all loan collateral are regularly reviewed by senior loan committee. Because many of these inputs are not observable, the measurements are classified as Level 3. As of December 31, 2018, the Company identified $\$ 3.8$ million in impaired loans that had specific allowances for losses aggregating $\$ 867,000$. Related to these loans, there were $\$ 370,000$ in charge-offs recorded during the year ended December 31, 2018. As of December 31, 2017, the Company identified $\$ 4.0$ million in impaired loans that had specific allowances for losses aggregating $\$ 870,000$. Related to these loans, there were $\$ 788,000$ in charge-offs recorded during the year ended December 31, 2017.

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## Other Real Estate Owned and Repossessed Assets

Other real estate owned (OREO) and repossessed assets consisted of loan collateral that has been repossessed through foreclosure. This collateral is comprised of commercial and residential real estate and other non-real estate property, including autos, manufactured homes, and construction equipment. Subsequent to foreclosure, these assets initially are carried at fair value of the collateral less estimated selling costs. Fair value, when recorded, is generally based upon appraisals by approved, independent state certified appraisers. Like impaired loans, appraisals on OREO may be discounted based on the Company's historical knowledge, changes in market conditions from the time of appraisal or other information available. During the holding period, valuations are updated periodically, and the assets may be written down to reflect a new cost basis. Because many of these inputs are not observable, the measurements are classified as Level 3.

| (in thousands) | $\begin{gathered} \text { Total } \\ \text { Fair Value } \\ \hline \end{gathered}$ |  | Fair Value Measurements Using |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quoted Prices <br> in Active <br> Markets for <br> Identical <br> Assets <br> (Level 1) |  | OtherObservable Inputs (Level 2) |  | SignificantUnobservableInputs(Level 3) |  | Total Gains (Losses)* |  |
| December 31, 2018 |  |  |  |  |  |  |  |  |  |  |
| Assets: |  |  |  |  |  |  |  |  |  |  |
| Collateral dependent impaired loans: |  |  |  |  |  |  |  |  |  |  |
| Commercial, financial, \& agricultural. . . . | \$ | 1,320 | \$ | - | \$ | - | \$ | 1,320 | \$ | (244) |
| Real estate construction - commercial. |  | 153 |  | - |  | - |  | 153 |  | (27) |
| Real estate mortgage - residential |  | 1,317 |  | - |  | - |  | 1,317 |  | (44) |
| Real estate mortgage - commercial |  | 115 |  | - |  | - |  | 115 |  | (20) |
| Installment and other consumer . . . . . . . . |  | - |  | - |  | - |  | - |  | (35) |
| Total |  | 2,905 | \$ | - | \$ | - | \$ | 2,905 | \$ | (370) |
| Other real estate and repossessed assets . . |  | 13,691 | \$ | - | \$ | - | \$ | 13,691 | \$ | (15) |
| December 31, 2017 |  |  |  |  |  |  |  |  |  |  |
| Assets: |  |  |  |  |  |  |  |  |  |  |
| Collateral dependent impaired loans: |  |  |  |  |  |  |  |  |  |  |
| Commercial, financial, \& agricultural. . . . | \$ | 1,583 | \$ | - | \$ | - | \$ | 1,583 | \$ | (521) |
| Real estate construction - commercial. . . . |  | 153 |  | - |  | - |  | 153 |  |  |
| Real estate mortgage - residential |  | 49 |  | - |  | - |  | 49 |  | (204) |
| Real estate mortgage - commercial |  | 880 |  | - |  | - |  | 880 |  | (26) |
| Installment and other consumer . . . . . . . . |  | 593 |  | - |  | - |  | - |  | (37) |
| Total . . . . . . . . . . . . . . . . . . . . . . . | \$ | 3,258 | \$ | - | \$ | - | \$ | 2,665 | \$ | (788) |
| Other real estate and repossessed assets . . |  | 13,182 | \$ | - | S | - | \$ | 13,182 | \$ | (250) |

* Total gains (losses) reported for other real estate owned and repossessed assets includes charge-offs, valuation write-downs, and net losses taken during the periods reported.


## (17) Fair Value of Financial Instruments

The following methods and assumptions were used to estimate the fair value of each class of financial instruments for which it is practicable to estimate such value:

# HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES 

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## Loans

Fair values are estimated for portfolios with similar financial characteristics. Loans are segregated by type, such as commercial, real estate, and consumer. Each loan category is further segmented into fixed and variable interest rate categories. The fair value of loans, or exit price, is estimated by using the future value of discounted cash flows using comparable market rates for similar types of loan products and adjusted for market factors. The discount rates used are estimated using comparable market rates for similar types of loan products adjusted to be commensurate with the credit risk, overhead costs, and optionality of such instruments.

## Investment Securities

A detailed description of the fair value measurement of the debt instruments in the available-for-sale sections of the investment security portfolio is provided in the Fair Value Measurement section above. A schedule of investment securities by category and maturity is provided in the notes on Investment Securities.

## Other investment securities

Other investment securities include equity securities with readily determinable fair values and other investment securities that do not have readily determinable fair values. Investments in Federal Home Loan Bank (FHLB) stock, and Midwest Independent Bank (MIB) bankers bank stock, that do not have readily determinable fair values, are required for membership in those organizations.

Equity securities with readily determinable fair values are recorded at fair value, with changes in fair value reflected in earnings. Equity securities that do not have readily determinable fair values are carried at cost and are periodically assessed for impairment.

## Federal Funds Sold, Cash, and Due from Banks

The carrying amounts of short-term federal funds sold and securities purchased under agreements to resell, interest earning deposits with banks, and cash and due from banks approximate fair value. Federal funds sold and securities purchased under agreements to resell classified as short-term generally mature in 90 days or less.

## Certificates of Deposit in other banks

Certificates of deposit are other investments made by the Company with other financial institutions that are carried at cost.

## Cash Surrender Value - Life Insurance

The fair value of Bank owned life insurance (BOLI) approximates the carrying amount. Upon liquidation of these investments, the Company would receive the cash surrender value which equals the carrying amount.

## Accrued Interest Receivable and Payable

For accrued interest receivable and payable, the carrying amount is a reasonable estimate of fair value because of the short maturity for these financial instruments.

## Deposits

The fair value of deposits with no stated maturity, such as noninterest-bearing demand, NOW accounts, savings, and money market, is equal to the amount payable on demand. The fair value of time deposits is based on the discounted value of contractual cash flows. The discount rate is estimated using the rates currently offered for deposits of similar remaining maturities.

# HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES 

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## Federal funds purchased and Securities Sold under Agreements to Repurchase

For Federal funds purchased and securities sold under agreements to repurchase, the carrying amount is a reasonable estimate of fair value, as such instruments reprice in a short time period.

## Subordinated Notes and Other Borrowings

The fair value of subordinated notes and other borrowings is based on the discounted value of contractual cash flows. The discount rate is estimated using the rates currently offered for other borrowed money of similar remaining maturities.

A summary of the carrying amounts and fair values of the Company's financial instruments at December 31, 2018 and 2017 is as follows:

| (in thousands) | December 31, 2018 |  |  |  |  |  | December 31, 2018 <br> Fair Value Measurements |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Quoted Prices in Active Markets for Identical |  | Other Observable |  | Net Significant Unobservable |  |
|  | Carrying amount |  |  | Fair value |  |  | $\begin{gathered} \hline \text { Assets } \\ \text { (Level 1) } \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \text { Inputs } \\ \text { (Level 2) } \\ \hline \end{gathered}$ |  | Inputs (Level 3) <br> (Level 3) |  |
| Assets: |  |  |  |  |  |  |  |  |  |  |  |  |
| Cash and due from banks | \$ | \$ | 23,687 | \$ | \$ | 23,687 | \$ | 23,687 | \$ | \$ - | \$ | \$ - |
| Federal funds sold and overnight interest-bearing deposits . . . . . |  |  | 18,396 |  |  | 18,396 |  | 18,396 |  | - |  | - |
| Certificates of deposit in other banks. |  |  | 12,247 |  |  | 12,247 |  | 12,247 |  | - |  | - |
| Available for sale securities |  |  | 218,205 |  |  | 218,205 |  | 1,952 |  | 216,253 |  | - |
| Other investment securities. |  |  | 5,675 |  |  | 5,675 |  | - |  | 5,675 |  | - |
| Loans, net. |  |  | 1,134,975 |  |  | ,115,003 |  | - |  | - |  | 1,115,003 |
| Mortgage servicing rights |  |  | 2,931 |  |  | 2,931 |  | - |  | - |  | 2,931 |
| Cash surrender value - life insurance |  |  | 2,542 |  |  | 2,542 |  | - |  | 2,542 |  | - |
| Accrued interest receivable. |  |  | 6,162 |  |  | 6,162 |  | 6,162 |  | - |  |  |
|  |  |  | 1,424,820 |  |  | ,404,848 | \$ | 62,444 |  | 224,470 |  | 1,117,934 |
| Liabilities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Deposits: |  |  |  |  |  |  |  |  |  |  |  |  |
| Non-interest bearing demand . | \$ | \$ | 262,857 | \$ | \$ | 262,857 | \$ | 262,857 | \$ | \$ - | \$ | \$ - |
| Savings, interest checking and money market. |  |  | 614,040 |  |  | 614,040 |  | 614,040 |  | - |  | - |
| Time deposits |  |  | 321,571 |  |  | 318,949 |  | - |  | - |  | 318,949 |
| Federal funds purchased and securities sold under agreements to repurchase. |  |  | 24,647 |  |  | 24,647 |  | 24,647 |  | - |  | - |
| Federal Home Loan Bank |  |  |  |  |  |  |  |  |  |  |  |  |
| Subordinated notes |  |  | 49,486 |  |  | 45,749 |  | - |  | 45,749 |  | - |
| Accrued interest payable. . . . . . . . |  |  | 1,035 |  |  | 1,035 |  | 1,035 |  | - |  | - |
|  |  |  | 1,368,789 |  |  | 1,361,603 | \$ | 902,579 |  | 140,075 | \$ | 318,949 |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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## Off-Balance-Sheet Financial Instruments

The fair value of commitments to extend credit and standby letters of credit is estimated using the fees currently charged to enter into similar agreements, taking into account the remaining terms of the agreements, the likelihood of the counterparties drawing on such financial instruments, and the present creditworthiness of such counterparties. The Company believes such commitments have been made on terms that are competitive in the markets in which it operates.

## Limitations

The fair value estimates provided are made at a point in time based on market information and information about the financial instruments. Because no market exists for a portion of the Company's financial instruments, fair value estimates are based on judgments regarding future expected loss experience, current economic conditions, risk characteristics of various financial instruments, and other factors. These estimates are subjective in nature and involve uncertainties and matters of significant judgment and, therefore, cannot be determined with precision. Changes in assumptions could significantly affect the fair value estimates.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

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## (18) Commitments and Contingencies

The Company issues financial instruments with off-balance-sheet risk in the normal course of business of meeting the financing needs of its customers. These financial instruments include commitments to extend credit and standby letters of credit. These instruments may involve, to varying degrees, elements of credit and interest rate risk in excess of the amounts recognized in the consolidated balance sheets.

The Company's extent of involvement and maximum potential exposure to credit loss in the event of nonperformance by the other party to the financial instrument for commitments to extend credit and standby letters of credit is represented by the contractual amount of these instruments. The Company uses the same credit policies in making commitments and conditional obligations as it does for financial instruments included on its consolidated balance sheets. At December 31, 2018, no amounts have been accrued for any estimated losses for these financial instruments.

The contractual amount of off-balance-sheet financial instruments as of December 31, 2018 and 2017 is as follows:

| (in thousands) | 2018 | 2017 |
| :---: | :---: | :---: |
| Commitments to extend credit | \$ 267,314 | \$ 238,527 |
| Commitments to originate residential first and second mortgage loans | 1,759 | 1,471 |
| Standby letters of credit . . . . . . . . . | 82,895 | 74,004 |
| Total | \$ 351,968 | \$ 314,002 |

## Commitments

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 certain of the commitments and letters of credit are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. The Company evaluates each customer's creditworthiness on a case-by-case basis. The amount of collateral obtained, if deemed necessary by the Company upon extension of credit, is based on management's credit evaluation of the customer. Collateral held varies, but may include accounts receivable, inventory, furniture and equipment, and real estate.

Standby letters of credit are conditional commitments issued by the Company to guarantee the performance of a customer to a third party. These standby letters of credit are primarily issued to support contractual obligations of the Company's customers. The approximate remaining term of standby letters of credit range from one month to five years at December 31, 2018.

## Pending Litigation

The Company and its subsidiaries are defendants in various legal actions incidental to the Company's past and current business activities. Based on the Company's analysis, and considering the inherent uncertainties associated with litigation, management does not believe that it is reasonably possible that these legal actions will materially adversely affect the Company's consolidated financial condition or results of operations in the near term. The Company records a loss accrual for all legal matters for which it deems a loss is probable and can be reasonably estimated. Some legal matters, which are at early stages in the legal process, have not yet progressed to the point where a loss amount can be estimated.

## (19) Revenue Recognition

On January 1, 2018, the Company adopted ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606) and all subsequent ASUs that modified Topic 606. As stated in Note 1 Summary of Significant Accounting Policies, the implementation of the new 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.

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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 mortgage servicing rights, financial guarantees, derivatives, and certain credit card fees are not in the scope of the new guidance. Topic 606 is applicable to noninterest revenue streams such as trust department revenue, service charges and fees, debit card income, ATM surcharge income, and sales of other real estate owned. However, the recognition of these revenue streams did not change current business practices or result in any changes to the Company's consolidated financial statements.

Descriptions of our revenue-generating activities within the scope of this guidance, which are presented in our income statement as components of noninterest income are as follows:

## Trust Department Revenue

Trust and asset management income is primarily comprised of fees earned from the management and administration of trusts and other customer assets. The Company's performance obligation is generally satisfied over time and the resulting fees are recognized monthly, based upon the month-end market value of the assets under management and the applicable fee rate. Payment is generally received a few days after month end through a direct charge to customers' accounts. The Company 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. The Company'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.

## Service Charges on Deposit Accounts

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. The Company'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 are largely transactional based, and therefore, the Company's 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.

## Fees, Exchange, and Other Service Charges

Fees, exchange, and other service charges are primarily comprised of debit and credit card income, ATM fees, merchant services income, and other service charges. Debit and credit card income is primarily comprised of interchange fees earned whenever the Company's debit and credit cards are processed through card payment networks such as Visa. ATM fees are primarily generated when a Company cardholder uses a non-Company ATM or a non-Company cardholder uses a Company ATM. Merchant services income mainly represents fees charged to merchants to process their debit and credit card transactions, in addition to account management fees. Other service charges include revenue from processing wire transfers, bill pay service, cashier's checks, and other services. The Company'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.

## Gains/Losses on Sales of Other Real Estate Owned (OREO)

The Company records a gain or loss from the sale of OREO when control of the property transfers to the buyer, which generally occurs at the time of an executed deed. When the Company finances the sale of OREO to the buyer, the Company assesses whether the buyer is committed to perform their obligations under the contract and whether collectability of the transaction price is probable. Once these criteria are met, the OREO asset is derecognized and the gain or loss on sale is recorded upon the transfer of control of the property to the buyer.

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2018, 2017, and 2016

## (20) Condensed Financial Information of the Parent Company Only

Following are the condensed financial statements of Hawthorn Bancshares, Inc. (Parent only) as of and for the years indicated:

## Condensed Balance Sheets

|  | December 31, |  |
| :---: | :---: | :---: |
| (in thousands) | 2018 | 2017 |
| Assets |  |  |
| Cash and due from bank subsidiaries | \$ 1,334 | \$ 1,415 |
| Investment in bank-issued trust preferred securities | 1,374 | 1,486 |
| Investment in subsidiaries | 152,735 | 144,589 |
| Deferred tax asset. | 1,307 | 1,677 |
| Other assets. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 403 | 133 |
| Total assets . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 157,153 | \$ 149,300 |
| Liabilities and Stockholders' Equity |  |  |
| Subordinated notes . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 49,486 | \$ 49,486 |
| Other liabilities. | 8,253 | 8,443 |
| Stockholders' equity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 99,414 | 91,371 |
| Total liabilities and stockholders' equity . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 157,153 | \$ 149,300 |

## Condensed Statements of Income

|  | For the Years Ended December 31, |  |  |
| :---: | :---: | :---: | :---: |
|  | 2018 | 2017 | 2016 |
| Income |  |  |  |
| Interest and dividends received from subsidiaries | \$ 2,653 | \$ 2,653 | \$ 46 |
| Other. | 428 | - |  |
| Total income. . . | 3,081 | 2,653 | 46 |
| Expenses |  |  |  |
| Interest on subordinated notes | 2,229 | 1,751 | 1,494 |
| Other. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 3,461 | 2,358 | 2,039 |
| Total expenses . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 5,690 | 4,109 | 3,533 |
| Income before income tax benefit and equity in undistributed income of subsidiaries. | (195) | $(1,456)$ | $(3,487)$ |
| Income tax benefit. | 1,397 | 191 | 1,337 |
| Equity in undistributed income of subsidiaries . . . . . . . . . . . . . . . . . . . . . | 9,512 | 4,679 | 9,432 |
| Net income . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 10,714 | \$ 3,414 | \$ 7,282 |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements
December 31, 2018, 2017, and 2016

## Condensed Statements of Cash Flows

|  | For the Years Ended December 31, |  |  |
| :---: | :---: | :---: | :---: |
| (in thousands) | 2018 | 2017 | 2016 |
| Cash flows from operating activities: |  |  |  |
| Net income | \$ 10,714 | \$ 3,414 | \$ 7,282 |
| Adjustments to reconcile net income to net cash provided (used) by operating activities: |  |  |  |
| Equity in undistributed income of subsidiaries. | $(9,512)$ | $(4,679)$ | $(9,432)$ |
| Stock based compensation expense | - | 3 | 17 |
| Decrease (increase) in deferred tax asset. | 370 | 881 | (442) |
| Other, net | (116) | 453 | 769 |
| Net cash provided (used) by operating activities | \$ 1,456 | \$ 72 | \$ $(1,806)$ |
| Cash flows from investing activities: |  |  |  |
| Decrease (increase) in investment in subsidiaries, net | \$ 500 | \$ (250) | \$ 2,500 |
| Net cash provided (used) by investing activities. | \$ 500 | \$ (250) | \$ 2,500 |
| Cash flows from financing activities: |  |  |  |
| Cash dividends paid - common stock. | \$ $(1,993)$ | \$ $(1,474)$ | \$ $(1,097)$ |
| Issuance of stock under equity compensation plan | 135 | - |  |
| Purchase of treasury stock | (179) | (878) | (623) |
| Net cash used in financing activities. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ $(2,037)$ | \$ $(2,352)$ | \$ $(1,720)$ |
| Net decrease in cash and due from banks | (81) | $(2,530)$ | $(1,026)$ |
| Cash and due from banks at beginning of year . . . . . . . . . . . . . . . . . | 1,415 | 3,945 | 4,971 |
| Cash and due from banks at end of year. . . . . . . . . . . . . . . . . . . . . | \$ 1,334 | \$ 1,415 | \$ 3,945 |

## HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2018, 2017, and 2016

## (21) Quarterly Financial Information (Unaudited)

| (In thousands except per share data) | First quarter | Second quarter | Third quarter | Fourth quarter | $\begin{gathered} \text { Year } \\ \text { to } \\ \text { Date } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended December 31, 2018 |  |  |  |  |  |
| Interest income | \$ 13,544 | \$ 14,288 | \$ 14,751 | \$ 15,196 | \$ 57,779 |
| Interest expense | 2,790 | 3,261 | 3,443 | 3,692 | 13,186 |
| Net interest income. | 10,754 | 11,027 | 11,308 | 11,504 | 44,593 |
| Provision for loan losses | 300 | 450 | 250 | 475 | 1,475 |
| Noninterest income | 2,203 | 2,378 | 2,324 | 2,436 | 9,341 |
| Investment gains (losses), net | 98 | 108 | 50 | (1) | 255 |
| Noninterest expense. | 10,254 | 9,931 | 9,888 | 10,259 | 40,332 |
| Income tax expense . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 411 | 225 | 446 | 586 | 1,668 |
| Net income. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 2,090 | \$ 2,907 | \$ 3,098 | \$ 2,619 | \$ 10,714 |
| Net income per share: |  |  |  |  |  |
| Basic earnings per share | \$ 0.35 | \$ 0.48 | \$ 0.51 | \$ 0.44 | \$ 1.78 |
| Diluted earnings per share. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.35 | 0.48 | 0.51 | 0.44 | 1.78 |
| Year Ended December 31, 2017 |  |  |  |  |  |
| Interest income | \$ 12,099 | \$ 12,681 | \$ 12,936 | \$ 13,219 | \$ 50,935 |
| Interest expense . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,612 | 1,861 | 2,183 | 2,351 | 8,007 |
| Net interest income. | 10,487 | 10,820 | 10,753 | 10,868 | 42,928 |
| Provision for loan losses | 350 | 330 | 555 | 530 | 1,765 |
| Noninterest income | 2,407 | 2,099 | 2,181 | 2,263 | 8,950 |
| Investment gains (losses), net | - | - | - | 5 | 5 |
| Noninterest expense. | 9,350 | 9,687 | 9,766 | 9,999 | 38,802 |
| Income tax expense . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,093 | 983 | 847 | 4,979 | 7,902 |
| Net income. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | \$ 2,101 | \$ 1,919 | \$ 1,766 | \$ $(2,372)$ | \$ 3,414 |
| Net income per share: |  |  |  |  |  |
| Basic earnings per share | \$ 0.35 | \$ 0.32 | \$ 0.29 | \$ (0.39) | \$ 0.56 |
| Diluted earnings per share. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.35 | 0.32 | 0.29 | (0.39) | 0.56 |

## MARKET PRICE OF AND DIVIDENDS ON EQUITY SECURITIES AND RELATED MATTERS

## Market Price

The Company's common stock trades on Nasdaq's global select market under the stock symbol of HWBK. The following table sets forth the range of high and low bid prices of the Company's common stock by quarter for each quarter in 2018 and 2017 in which the stock was traded.

|  |  | High |  | Low |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  |  |  |  |
| First Quarter. |  | \$ | 20.38 | \$ | 19.23 |
| Second Quarter |  | \$ | 22.22 | \$ | 19.52 |
| Third Quarter . |  | \$ | 24.80 | \$ | 21.65 |
| Fourth Quarter . |  | \$ | 24.88 | \$ | 20.05 |

2017

| First Quarter. | \$ | 21.50 | \$ | 15.04 |
| :---: | :---: | :---: | :---: | :---: |
| Second Quarter | \$ | 20.76 | \$ | 15.99 |
| Third Quarter | \$ | 20.67 | \$ | 17.38 |
| Fourth Quarter |  | 19.95 | \$ | 18.37 |

## Shares Outstanding

As of December 31, 2018, the Company had issued $6,278,481$ shares of common stock, of which $6,034,843$ shares were outstanding. The outstanding shares were held of record by approximately 1,687 shareholders.

## Dividends

The following table sets forth information on dividends paid by the Company in 2018 and 2017.

| Month Paid | Dividends Paid Per Share |  |
| :---: | :---: | :---: |
| January, 2018 | \$ | 0.07 |
| April, 2018 |  | 0.07 |
| July, 2018. |  | 0.10 |
| October, 2018 |  | 0.10 |
| Total for 2018 | \$ | 0.34 |
| January, 2017. | \$ | 0.06 |
| April, 2017. |  | 0.06 |
| July, 2017. |  | 0.07 |
| October, 2017 |  | 0.07 |
| Total for 2017 | \$ | 0.26 |

The board of directors intends that the Company will continue to pay quarterly dividends. The actual amount of quarterly dividends and the payment, as well as the amount, of any special dividend ultimately will depend on the payment of sufficient dividends by the subsidiary Bank to the Company. The payment by the Bank of dividends to the Company will depend upon such factors as the Bank's financial condition, results of operations and current and anticipated cash needs, including capital requirements.

## Stock Performance Graph

The following performance graph shows a comparison of cumulative total returns for the Company, the Nasdaq Stock Market (U.S. Companies), and a peer index of financial institutions having total assets of between $\$ 1$ billion and $\$ 5$ billion for the period from December 31, 2013, through December 31, 2018. The cumulative total return on investment for each of the periods for the Company, the Nasdaq Stock Market (U.S. Companies) and the peer index is based on the stock price or index at December 31, 2013. The performance graph assumes that the value of an investment in the Company's common stock and each index was $\$ 100$
at December 31, 2013 and that all dividends were reinvested. The information presented in the performance graph is historical in nature and is not intended to represent or guarantee future returns.


The comparison of cumulative total returns presented in the above graph was plotted using the following index values and common stock price values:

|  | Period Ending |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{1 2 / 3 1 / 1 3}$ | $\mathbf{1 2 / 3 1 / 1 4}$ | $\mathbf{1 2 / 3 1 / 1 5}$ | $\mathbf{1 2 / 3 1 / 1 6}$ | $\mathbf{1 2 / 3 1 / 1 7}$ | $\mathbf{1 2 / 3 1 / \mathbf { 1 8 }}$ |
| Hawthorn Bancshares, Inc. . . . . . . . . | $\$ 100.00$ | $\$ 123.79$ | $\$ 144.31$ | $\$ 171.01$ | $\$ 211.24$ | $\$ 226.32$ |
| Nasdaq Composite (U.S. Companies) . <br> Index of financial institutions ( $\$ 1$ | $\$ 100.00$ | $\$ 114.75$ | $\$ 122.74$ | $\$ 133.62$ | $\$ 173.22$ | $\$ 168.30$ |
| billion to $\$ 5$ billion) . . . . . . . . . . | $\$ 100.00$ | $\$ 104.56$ | $\$ 117.04$ | $\$ 168.38$ | $\$ 179.51$ | $\$ 157.27$ |


| Name | Position with the Company | Position with Subsidiary Bank | Principal Occupation |
| :---: | :---: | :---: | :---: |
| David T. Turner | Chairman, Chief Executive Officer, President and Director -Class III | Chairman, Chief Executive Officer, President and Director | Position with Hawthorn Bancshares, Inc. and Hawthorn Bank |
| Kathleen L. Bruegenhemke . | Senior Vice President, Chief Risk Officer, Corporate Secretary, and Director-Class I | Senior Vice President, Chief Operating Officer, Chief Risk Officer, Secretary to the Board, and Director | Position with Hawthorn Bancshares, Inc. and Hawthorn Bank |
| W. Bruce Phelps. | Senior Vice President and Chief Financial Officer | Senior Vice President and Chief Financial Officer | Position with Hawthorn Bancshares, Inc. and Hawthorn Bank |
| Kevin L. Riley | Director-Class III | Director | Co-owner, Riley Chevrolet, Inc., Riley Toyota-ScionCadillac, Inc., Riley Brothers, LLC, and Riley Brothers II, LLC, Jefferson City, Missouri |
| Frank E. Burkhead . | Director-Class II | Director | Owner, Burkhead Wealth <br> Management, Co-owner, Burkhead \& Associates, LLC, Pro 356, LLC, and FACT Properties, LLC, Jefferson City, Missouri |
| Philip D. Freeman | Director-Class I | Director | Owner, Freeman Properties, JCMO, LLC, Jefferson City, Missouri |
| Gus S. (Jack) Wetzel III. | Director-Class II | Director | President, Meadows Construction Company and Meadows Development Company, Clinton, Missouri |
| Jonathan D. Holtaway | Director - Class I | Director | Co-owner, Ategra GP, LLC, and Ategra Capital Management LLC, and Managing Member of Ategra Financial Institution Fund, LP, all of Vienna, Virginia |

## ANNUAL REPORT ON FORM 10-K

A copy of the Company's Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the Securities and Exchange Commission, excluding exhibits, will be furnished without charge to shareholders entitled to vote at the 2018 annual meeting of shareholders upon written request to Kathleen L. Bruegenhemke, Corporate Secretary, Hawthorn Bancshares, Inc., 132 East High Street, Jefferson City, Missouri 65101. The Company will provide a copy of any exhibit to the Form 10-K to any such person upon written request and the payment of the Company's reasonable expenses in furnishing such exhibits.


[^0]:    KPMG LLP is a Delaware limited liability partnership and the U.S. member
    firm of the KPMG network of independent member firms affiliated with
    KPMG International Cooperative ("KPMG International"), a Swiss entity

