2019 ANNUAL REPORT TO SHAREHOLDERS

HAWTHORN BANCSHARES, INC.

Jefferson City, Missouri



March 16, 2020

Dear Shareholders:

I am pleased to report that in 2019, the Company finished the year with increased net income, strong capital levels and excellent asset quality.

Net income in 2019 was \$16.1 million (\$2.57 per diluted share) compared to \$10.7 million (\$1.71 per diluted share) in 2018. This includes a pre-tax gain on the 2019 sale of our Branson branch of \$2.2 million (\$1.7 million after tax), or \$0.27 per diluted common share.

Excluding this gain, non-GAAP net income for the current year was \$14.4 million, or \$2.30 per diluted common share, and **represented a 34.5% increase over the prior year**. This was achieved despite a higher effective tax rate in 2019 of 19.2% compared to 13.5% in the prior year.

Commercial loan production is the primary driver of our increased earnings. In 2019, our loan team increased net loans by \$21.8 million. Average loans increased \$57.1 million, or 5.2%, over 2018.

This additional loan volume, coupled with an increase in our net interest margin of 20 basis points, contributed to a \$4.1 million, or a 9.2% increase in net interest income over the prior year.

This significant growth was achieved without a deterioration in loan quality. The ratio of total nonperforming loans to total loans was 0.43% at December 31, 2019, compared to 0.49% at December 31, 2018.

Additionally, in late 2019, we began to expand the bank's capacity for secondary market home lending. This initiative will position the bank for the capacity to handle larger mortgage volume with greater efficiency, and has included the hiring of additional experienced lending officers and support staff, adding to the bank's available loan products and upgrading our operating systems. An expanded mortgage program creates greater potential for non-interest income in 2020 and beyond.

Total 2019 non-interest income was \$8.9 million, excluding the Branson branch sale gain. This represents a 4.3% decrease from 2018 non-interest income and is mostly due to market value write-downs of our mortgage servicing rights.

The bank was able to reduce total non-interest expense to \$38.7 million in 2019, a \$1.6 million, or 4.0%, decrease from non-interest expense in 2018. This decrease was mostly due to a \$1.5 million savings in salaries and benefits resulting from a 16.5% reduction in full-time equivalent staff since year-end 2017. The bank remains committed to preserving local jobs while also investing in new technologies that meet customer demands for accessible and economical tools and services, all the while maintaining the high level of service our customers have come to expect from our bank.

The bank continues to maintain a strong capital position and finished the year with 10.73% in leverage capital and 14.89% in total risk-based capital, far exceeding the minimum regulatory requirements.

In 2019, we maintained strong asset quality while achieving sustainable growth. We have increased our net interest margin and reduced costs to improve efficiencies. I am committed to further improving earnings performance, sustaining sound and proper capital levels, and paying regular dividends.

As we begin 2020 with a strong capital base and healthy loan volume, we look forward to providing accessible and competitive banking services for our community. Hawthorn's staff, management, Board of Directors and Advisory Board members are committed to continuing the growth of our strong local bank and delivering long-term value to our shareholders.

We appreciate your support and the referrals you give 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, 2019, 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, 2019, 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, 2019. 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.

Selected Financial Data

Income Statement Data									
(In thousands, except per share data)		2019		2018	2017		2016		2015
Interest income	\$	63,970	\$	57,779	\$ 50,935	\$	46,010	\$	45,756
Interest expense		15,232		13,186	8,007		5,663		4,999
Net interest income		48,738		44,593	42,928		40,347		40,757
Provision for loan losses		1,150		1,475	1,765		1,425		250
Net interest income after provision for loan losses		47,588		43,118	41,163		38,922		40,507
Non-interest income		8,937		9,341	8,950		8,315		9,158
Investment securities (losses) gains, net		(40)		255	5		602		8
Gain on branch sale, net		2,183		_	_		_		
Non-interest expense		38,731		40,332	38,802		36,807		36,494
Income before income taxes		19,937		12,382	11,316		11,032		13,179
Income tax expense		3,823		1,668	7,902		3,750		4,580
Net income	\$	16,114	\$	10,714	\$ 3,414	\$	7,282	\$	8,599
Per Share Data									
Basic earnings per share	\$	2.57	\$	1.71	\$ 0.54	\$	1.15	\$	1.35
Diluted earnings per share		2.57		1.71	0.54		1.15		1.35
Cash dividends paid on common stock		2,684		1,993	1,474		1,097		1,058
Common stock dividend		5,795		5,014	4,166		3,149		2,847
Book value per share		18.33		15.86	14.50		14.36		13.72
Market price per share		25.50		20.22	19.18		15.74		13.46
Basic weighted average shares of common stock outstanding	6	,276,236		6,268,050	6,300,237	(6,339,556	6	5,361,220
Diluted weighted average shares of common stock outstanding	6	,276,236	(6,273,294	6,305,954	(6,339,556	(5,361,220

(In thousands)	2020	2019	2018	2017	2016
Balance Sheet Data (at year end)					
Total assets	\$ 1,492,962	\$ 1,492,962	\$ 1,429,216	\$ 1,287,048	\$ 1,200,921
Net loans	1,156,748	1,156,748	1,057,580	964,143	856,476
Investment securities	180,901	180,901	237,579	224,308	243,091
Total deposits	1,186,521	1,186,521	1,125,812	1,010,666	947,197
Federal Home Loan Bank advances and other borrowings	96,919	96,919	121,382	93,392	50,000
Subordinated notes	49,486	49,486	49,486	49,486	49,486
Total stockholders' equity	115,038	115,038	91,371	91,017	87,286
Balance Sheet Data (average balances)					
Total assets	\$ 1,479,035	\$ 1,446,160	\$ 1,352,343	\$ 1,251,741	\$ 1,199,061
Net loans	1,142,495	1,086,163	1,013,702	904,069	852,514
Investment securities	205,598	242,806	226,911	243,169	242,740
Total deposits	1,185,216	1,169,243	1,068,487	997,514	975,036
Federal Home Loan Bank advances and other borrowings	97,443	81,945	98,383	67,212	48,474
Subordinated notes	49,486	49,486	49,486	49,486	49,486
Total stockholders' equity	109,103	93,615	95,116	91,401	84,818
Key Ratios					
Earnings Ratios					
Return on average total assets	1.09 %		0.25 %		
Return on average common stockholders' equity	14.77	11.45	3.59	7.97	10.14
Efficiency ratio (3)	67.15	74.78	74.79	75.64	73.10
Net interest spread	3.20	3.06	3.24	3.36	3.59
Net interest margin	3.51	3.31	3.41	3.48	3.69
Asset Quality Ratios					
Allowance for loan losses to loans	1.07 %		1.02 %		
Non-performing loans to loans (1)	0.43	0.49	0.56	0.36	0.51
Non-performing assets to loans (2)	1.53	1.60	1.80	1.81	2.36
Non-performing assets to assets (2)	1.20	1.30	1.34	1.37	1.70
Allowance for loan losses to non-performing loans	246.09	208.97	180.87	282.94	194.48
Net loan charge-offs to average loans	0.03	0.06	0.08	0.02	0.09
Capital Ratios					
Average stockholders' equity to average total assets	7.38 %	6.47 %	7.03 %		
Period-end stockholders' equity to period-end assets	7.71	6.71	6.39	7.07	7.27
Total risk-based capital ratio	14.89	13.28	12.93	13.88	14.78
Tier 1 risk-based capital ratio	13.04	11.21	10.72	11.42	12.03
Common equity Tier 1 capital	9.86	8.48	8.04	8.61	9.04
Tier 1 leverage ratio	10.73	9.55	9.33	9.87	9.84

⁽¹⁾ Non-performing loans consist of nonaccrual loans, non-performing troubled debt restructurings and loans contractually past due 90 days or more and still accruing interest.

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. In 2019, these measures include the adjustment to exclude the impact of the gain on the sale of the Company's Branson branch that closed during the quarter ended March 31, 2019, which is non-recurring and not considered indicative of underlying earnings performance. In 2017, 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

⁽²⁾ Non-performing 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 non-interest income.

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:

Income Statement Data										
(In thousands, except per share data)		2019		2018		2017		2016		2015
Net income - GAAP	\$ 1	6,114	\$:	10,714	\$	3,414	\$	7,282	\$	8,599
Effect of net deferred tax asset adjustments (a)		_		_		4,105		_		
Effect of net gain on branch sale (b)	((1,725)		_		_		_		
Net income - non-GAAP	\$ 1	14,389	\$	10,714	\$	7,519	\$	7,282	\$	8,599
						-		-		-
Per Share Data										
Basic earnings per share - GAAP	\$	2.57	\$	1.71	\$	0.54	\$	1.15	\$	1.35
Effect of net deferred tax asset adjustments (a)						0.68		_		_
Effect of net gain on branch sale (b)		(0.27)		_		_		_		
Basic earnings per share - non-GAAP	\$	2.30	\$	1.71	\$	1.22	\$	1.15	\$	1.35
Diluted earnings per share - GAAP	\$	2.57	\$	1.71	\$	0.54	\$	1.15	\$	1.35
Effect of net deferred tax asset adjustments (a)						0.68				
Effect of net gain on branch sale (b)		(0.27)		_		_		_		
Diluted earnings per share - non-GAAP	\$	2.30	\$	1.71	\$	1.22	\$	1.15	\$	1.35
Key Ratios										
Return on average total assets - GAAP		1.09 %)	0.74 %	Ó	0.25 %	6	0.58 %	Ó	0.72 %
Effect of net deferred tax asset adjustments (a)		<u> </u>)	 %	Ó	0.31 %	6	<u> </u>	Ó	— %
Effect of net gain on branch sale (b)		(0.12)%)	<u> </u>	Ó	<u> </u>	6	<u> </u>	Ó	<u> </u>
Return on average total assets - non-GAAP		0.97 %)	0.74 %	Ó	0.56 %	6	0.58 %	Ó	0.72 %
Return on average stockholders' equity - GAAP		14.77 %)	11.45 %	ó	3.59 %	6	7.97 %	ó	10.14 %
Effect of net deferred tax asset adjustments (a)		<u> </u>	1	<u> </u>	Ó	4.32 %	6	<u> </u>	Ó	— %
Effect of net gain on branch sale (b)		(1.58)%)	<u> </u>	Ó	%	6	<u> </u>	Ó	— %
Return on average stockholders' equity - non-GAAP		13.19 %)	11.45 %	ó	7.91 %	6	7.97 %	ó	10.14 %

- (a) Calculated using the difference in combined statutory rates of 38% for 2017 and 21% for subsequent years.
- (b) The pre-tax gain on the sale of the Branson Branch was \$2.2 million and \$1.7 million after tax for the year ended December 31, 2019.

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.

				\$ Ch	ange	% Cha	nge
(In thousands)	2019	2018	2017	'19-'18	18-'17	'19-'18	'18-'17
Net interest income	\$ 48,738	\$ 44,593	\$ 42,928	\$ 4,145	\$ 1,665	9.3 %	3.9 %
Provision for loan losses	1,150	1,475	1,765	(325)	(290)	(22.0)	(16.4)
Non-interest income	8,937	9,341	8,950	(404)	391	(4.3)	4.4
Investment securities (losses) gains, net	(40)	255	5	(295)	250	(115.7)	NM
Gain on branch sale, net	2,183	_		2,183	_	100.0	_
Non-interest expense	38,731	40,332	38,802	(1,601)	1,530	(4.0)	3.9
Income before income taxes	19,937	12,382	11,316	7,555	1,066	61.0	9.4
Income tax expense	3,823	1,668	7,902	2,155	(6,234)	129.2	(78.9)
Net income	\$ 16,114	\$ 10,714	\$ 3,414	\$ 5,400	\$ 7,300	50.4 %	213.8 %

NM - not meaningful

Consolidated net income increased \$5.4 million to \$16.1 million, or \$2.57 per diluted share, for the year ended December 31, 2019 compared to \$10.7 million, or \$1.71 per diluted share, for the year ended December 31, 2018. For the year ended December 31, 2019, the return on average assets (ROA) was 1.09%, the return on average stockholders' equity (ROE) was 14.77%, and the efficiency ratio was 67.15%.

Consolidated net income increased \$7.3 million to \$10.7 million, or \$1.71 per diluted share, for the year ended December 31, 2018 compared to \$3.4 million, or \$0.54 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%.

Net interest income was \$48.7 million for the year ended December 31, 2019 compared to \$44.6 million and \$42.9 million for the years ended December 31, 2018 and 2017, respectively. The net interest margin was 3.51% for the year ended December 31, 2019 compared to 3.31% and 3.41% for the years ended December 31, 2018 and 2017, respectively.

A \$1.2 million *provision for loan losses* was recorded for the year ended December 31, 2019 compared to a \$1.5 million and \$1.8 million provision for the years ended December 31, 2018 and 2017, respectively.

The Company's net charge-offs for the year ended December 31, 2019, were \$325,000, or 0.03% of average loans compared to \$675,000, or 0.06% of average loans for the year ended December 31, 2018, and \$799,000, or 0.08% of average loans for the year ended December 31, 2017.

Non-performing loans totaled \$5.1 million, or 0.43% of total loans, at December 31, 2019 compared to \$5.6 million, or 0.49% of total loans at December 31, 2018, and \$6.0 million, or 0.56% of total loans, at December 31, 2017.

Non-interest income decreased \$404,000, or 4.3%, for the year ended December 31, 2019 compared to the year ended December 31, 2018, and increased \$391,000, or 4.4%, for the year ended December 31, 2018 compared to the year ended December 31, 2017. These changes are discussed in greater detail below under Non-interest Income.

Investment securities (losses) gains, net of \$(40,000) were recorded for the year ended December 31, 2019 compared to \$255,000 and \$5,000 for the years ended December 31, 2018 and 2017, respectively. Securities 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 decreased \$1.6 million, or 4.0%, for the year ended December 31, 2019 compared to the year ended December 31, 2018, and increased \$1.5 million, or 3.9%, for the year ended December 31, 2018, compared to the year ended December 31, 2017. 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, 2019, 2018, and 2017, respectively.

			019		2018			2017				
		_	nterest	Rate			Interest	Rate		_	nterest	Rate
<i>a</i> 1 1)	Average		ncome/	Earned/	Average		ncome/	Earned/	Average		ncome/	Earned/
(In thousands)	Balance	Ex	pense(1)	Paid(1)	Balance	Ex	(1) pense	Paid(1)	Balance	Ex	pense(1)	Paid(1)
ASSETS												
Loans: (2) (3)	A 201.062	Φ.	11051	7.7 0.0/	A 100 110	Φ.	10.020	5 02 0/	A 106110	Φ.	0.644	4.64.07
Commercial	\$ 201,062	\$	11,051	5.50 %	,	\$	10,039	5.03 %		\$	8,644	4.64 %
Real estate construction - residential	25,953		1,553	5.98	29,481		1,562	5.30	21,466		998	4.65
Real estate construction - commercial	116,944		6,086	5.20	103,880		5,072	4.88	78,861		3,550	4.50
Real estate mortgage - residential	248,688		12,697	5.11	245,737		11,850	4.82	255,091		11,706	4.59
Real estate mortgage - commercial	530,090		25,939	4.89	485,911		22,704	4.67	450,427		20,697	4.60
Installment and other consumer	31,741		1,393	4.39	32,927		1,285	3.90	32,225		1,253	3.89
Total loans	\$ 1,154,478	\$	58,719	5.09 %	\$ 1,097,384	\$	52,512	4.79 %	\$ 1,024,210	\$	46,848	4.57 %
Investment securities:												
U.S. Treasury	\$ 1,866	\$	40	2.14 %	\$ 13,092	\$	215	1.64 %	\$ 312	\$	6	1.92 %
U.S. government and federal agency												
obligations	40,425		780	1.93	53,856		951	1.77	47,665		693	1.45
Obligations of states and political subdivisions	,		978	2.80	41,807		1,122	2.68	46,716		1,041	2.23
Mortgage-backed securities	118,197		2,487	2.10	124,492		2,631	2.11	122,124		2,258	1.85
Other debt securities	4,380		251	5.73	4,455		247	5.54	4,486		232	5.17
Total investment securities	\$ 199,784	\$	4,536	2.27 %	\$ 237,702	\$	5,166	2.17 %	\$ 221,303	\$	4,230	1.91 %
Other investment securities	5,814		272	4.68	5,104		218	4.27	5,608		158	2.82
Federal funds sold and interest bearing												
deposits in other financial institutions	47,967		1,125	2.38	32,142		699	2.17	22,844		267	1.17
Total interest earning assets	\$ 1,408,043	\$	64,652	4.59 %	\$ 1,372,332	\$	58,595	4.27 %	\$ 1,273,965	\$	51,503	4.04 %
All other assets	82,975				85,049				88,886			
Allowance for loan losses	(11,983)				(11,221)				(10,508)			
Total assets	\$ 1,479,035				\$ 1,446,160				\$ 1,352,343			
LIABILITIES AND STOCKHOLDERS'			-				-	-			_	-
EOUITY												
NOW accounts	\$ 199,323	\$	1,978	0.99 %	\$ 218,328	\$	2,131	0.98 %	\$ 210,780	\$	1,114	0.53 %
Savings	96,621		89	0.09	94,964		48	0.05	98,051		50	0.05
Interest checking	18,561		330	1.78	3,249		34	1.05	1,514		12	0.79
Money market	278,429		2,845	1.02	295,982		3,220	1.09	224,076		1,153	0.51
Time deposits	331,882		5,155	1.55	310,381		3,419	1.10	294,727		2,230	0.76
Total interest bearing deposits	\$ 924,816	\$	10,397	1.12 %		\$	8,852	0.96 %		\$	4,559	0.55 %
Federal funds purchased and securities sold	\$ 52.,010	Ψ	10,000	1112 / 0	<u> </u>	Ψ	0,002	0.50 70	027,110	Ψ	.,007	0.00
under agreements to repurchase	22,528		140	0.62	39,564		603	1.52	29,512		113	0.38
Federal Home Loan Bank advances and other	22,320		170	0.02	37,304		003	1.52	27,512		113	0.56
borrowings	97,443		2,338	2.40	81,945		1.517	1.85	98,383		1.590	1.62
Subordinated notes	49,486		2,376	4.80	49,486		2,229	4.50	49,486		1,751	3.54
Total borrowings	\$ 169,457	\$	4.854	2.86 %		\$	4,349	2.54 %		\$	3,454	1.95 %
Total interest bearing liabilities	\$ 1,094,273	\$	15,251		\$ 1,093,899	\$	13,201		\$ 1,006,529	\$	8,013	0.80 %
Demand deposits	260,400	φ	13,431	1.39 /0	246,339	φ	13,201	1.21 /0	239,339	φ	0,013	0.00 /0
Other liabilities	15,259				-))			
Total liabilities	1,369,932				12,307				11,359			
	, ,				, ,				, , -			
Stockholders' equity	109,103				93,615				95,116			
Total liabilities and stockholders' equity	\$ 1,479,035		10.101		\$ 1,446,160	_	15.50:		\$ 1,352,343		12 106	
Net interest income (FTE)		\$	49,401			\$	45,394			\$	43,490	
Net interest spread				3.20 %				3.06 %				3.24 %
Net interest margin				3.51 %				3.31 %				3.41 %

⁽¹⁾ Interest income and yields are presented on a fully taxable equivalent basis using the federal statutory income tax rate of 21%, net of nondeductible interest expense for the years ended December 31, 2019 and 2018, and 34%, net of nondeductible interest expense for the year ended December 31, 2017. Such adjustments totaled \$682,000, \$816,000 and \$568,000 for the years ended December 31, 2019, 2018 and 2017, 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, 2019, compared to December 31, 2018, and for the years ended December 31, 2018 compared to December 31, 2017. 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.

		2019	-				
		Change	due to		Change	due to	
	Total	Average	Average	Total	Average	Average	
(In thousands)	Change	Volume	Rate	Change	Volume	Rate	
Interest income on a fully taxable equivalent basis: (1)							
Loans: (2) (4)							
Commercial	\$ 1,012	\$ 82	\$ 930	\$ 1,395	\$ 642	\$ 753	
Real estate construction - residential	(9)	(199)	190	564	411	153	
Real estate construction - commercial	1,014	666	348	1,522	1,201	321	
Real estate mortgage - residential	847	143	704	144	(438)	582	
Real estate mortgage - commercial	3,235	2,128	1,107	2,007	1,653	354	
Installment and other consumer	108	(47)	155	32	27	5	
Investment securities: (3)							
U.S. Treasury	(175)	(226)	51	209	210	(1)	
U.S. government and federal agency obligations	(171)	(253)	82	258	97	161	
Obligations of states and political subdivisions	(144)	(191)	47	81	(117)	198	
Mortgage-backed securities	(144)	(132)	(12)	373	45	328	
Other debt securities	4	(4)	8	15	(2)	17	
Other investment securities	54	32	22	60	(15)	76	
Federal funds sold and interest bearing deposits in other financial institutions	426	367	59	432	139	293	
Total interest income	6,057	2,366	3,691	7,092	3,853	3,240	
Interest expense:							
NOW accounts	(153)	(189)	36	1,017	41	976	
Savings	41	1	40	(2)	(2)	_	
Interest checking	296	258	38	22	17	5	
Money market	(375)	(185)	(190)	2,067	462	1,605	
Time deposits	1,736	251	1,485	1,189	124	1,065	
Federal funds purchased and securities sold under agreements to repurchase	(463)	(195)	(268)	490	50	440	
Federal Home Loan Bank advances and other borrowings	821	320	501	(73)	(287)	214	
Subordinated notes	147	_	147	478		478	
Total interest expense	2,050	261	1,789	5,188	405	4,783	
Net interest income on a fully taxable equivalent basis	\$ 4,007	\$ 2,105	\$ 1,902	\$ 1,904	\$ 3,448	\$ (1,543)	

⁽¹⁾ Interest income and yields are presented on a fully taxable equivalent basis using the federal statutory income tax rate of 21%, net of nondeductible interest expense for the years ended 2019 and 2018, and 34%, net of nondeductible interest expense for the year ended 2017. Such adjustments totaled \$682,000, \$816,000 and \$568,000 for the years ended December 31, 2019, 2018 and 2017, respectively.

Financial results for the year ended December 31, 2019 compared to the year ended December 31, 2018 reflected an increase in net interest income, on a tax equivalent basis, of \$4.0 million, or 8.8%, and financial results for the year ended December 31, 2018 compared to the year ended December 31, 2017 reflected an increase of \$1.9 million, or 4.4%.

Measured as a percentage of average earning assets, the net interest margin (expressed on a fully taxable equivalent basis) increased to 3.51% for the year ended December 31, 2019, compared to 3.31% and 3.41% for the years ended December 31, 2018 and 2017, respectively.

The increase in net interest income and net interest margin for 2019 over 2018 was primarily due to an increase in average balances and rates earned on loans. This was coupled with a more moderate increase in rates paid on interest-bearing liabilities primarily due to reducing the rate paid on a money market special account in February 2019 and the loss of a high earning public fund account in June 2019. The increase in net interest income for 2018 over 2017 was primarily due to an increase in average earning assets while 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 was 4.75% at December 31, 2019 compared to 5.50% and 4.50% at December 31, 2018 and 2017, respectively.

⁽²⁾ Non-accruing loans are included in the average amounts outstanding.

⁽³⁾ Fees and costs on loans are included in interest income.

Average interest-earning assets increased \$35.7 million, or 2.6%, to \$1.41 billion for the year ended December 31, 2019 compared to \$1.37 billion for the year ended December 31, 2018, and average interest bearing liabilities increased \$374,000, or 0.03%, to \$1.09 billion for the year ended December 31, 2019 compared to \$1.09 billion for the year ended December 31, 2018.

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 \$1.09 billion for the year ended December 31, 2018 compared to \$1.00 billion for the year ended December 31, 2017.

Total interest income (expressed on a fully taxable equivalent basis) increased to \$64.7 million for the year ended December 31, 2019 compared to \$58.6 million and \$51.5 million for the years ended December 31, 2018 and 2017, respectively. The Company's rates earned on interest earning assets were 4.59% for the year ended December 31, 2019 compared to 4.27% and 4.04% for the years ended December 31, 2018 and 2017, respectively.

Interest income on loans increased to \$58.7 million for the year ended December 31, 2019 compared to \$52.5 million and \$46.8 million for the years ended December 31, 2018 and 2017, respectively.

Average loans outstanding increased \$57.1 million, or 5.2%, to \$1.15 billion for the year ended December 31, 2019 compared to \$1.10 billion for the year ended December 31, 2018. The average yield on loans receivable increased to 5.09% during the year ended December 31, 2019 compared to 4.79% for the year ended December 31, 2018.

Average loans outstanding increased \$73.2 million, or 7.1%, to \$1.10 billion for the year ended December 31, 2018 compared to \$1.02 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. See the *Lending and Credit Management* section for further discussion of changes in the composition of the lending portfolio.

Total interest expense was \$15.3 million for the year ended December 31, 2019 compared to \$13.2 million and \$8.0 million for the years ended December 31, 2018 and 2017, respectively. The Company's rates paid on interest bearing liabilities was 1.39% for the year ended December 31, 2019 compared to 1.21% and 0.80% for the years ended December 31, 2018 and 2017, respectively. See the *Liquidity Management* section for further discussion.

Interest expense on deposits was \$10.4 million for the year ended December 31, 2019 compared to \$8.9 million and \$4.6 million for the years ended December 31, 2018 and 2017, respectively.

Average interest bearing deposits increased \$1.9 million, or 0.21%, to \$924.8 million for the year ended December 31, 2019 compared to \$922.9 million for the year ended December 31, 2018. The average cost of deposits increased to 1.12% during the year ended December 31, 2019 compared to 0.96% for the year ended December 31, 2018.

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.

Interest expense on borrowings was \$4.9 million for year ended December 31, 2019 compared to \$4.3 million and \$3.5 million for the years ended December 31, 2018 and 2017, respectively. Average borrowings were \$169.5 million for the year ended December 31, 2019 compared to \$171.0 million and \$177.4 million for the years ended December 31, 2018 and 2017, respectively. See the *Liquidity Management* section for further discussion.

Non-interest Income and Expense

Non-interest income for the years ended December 31, 2019, 2018, and 2017 was as follows:

			•				\$ Ch	ange	:	% Cha	nge
(In thousands)	2019		2018		2017		'19-'18		'18-'17	'19-'18	'18-'17
Non-interest income											
Service charges and other fees	\$ 3,611	\$	3,736	\$	3,437	\$	(125)	\$	299	(3.3)%	8.7 %
Bank card income and fees	3,061		2,754		2,614		307		140	11.1	5.4
Trust department income	1,237		1,166		1,137		71		29	6.1	2.6
Real estate servicing fees, net	39		794		740		(755)		54	(95.1)	7.3
Gain on sales of mortgage loans, net	771		721		770		50		(49)	6.9	(6.4)
Other	218		170		252		48		(82)	28.2	(32.5)
Total non-interest income	\$ 8,937	\$	9,341	\$	8,950	\$	(404)	\$	391	(4.3)%	4.4 %
Non-interest income as a % of total revenue *	15.5 %	o	17.3 9	6	17.3 %	ó	Š		-	-	-

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

Total non-interest income decreased \$404,000, or 4.3%, to \$8.9 million for the year ended December 31, 2019 compared to the year ended December 31, 2018, and 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.

Bank card income and fees increased \$307,000, or 11.1%, to \$3.1 million for the year ended December 31, 2019 compared to the year ended December 31, 2018, and 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. The increase in all years presented was mainly the result of higher transaction volume in debit and credit card fees

Real estate servicing fees, net of the change in valuation of mortgage serving rights (MSRs) decreased \$755,000, or 95.1%, to \$39,000 for the year ended December 31, 2019 compared to the year ended December 31, 2018, and increased \$54,000, or 7.3%, to \$794,000 for the year ended December 31, 2018 compared to the year ended December 31, 2017. The decrease in the year ended 2019 over the year ended 2018 was primarily due to decreases in fair value of the MSRs from increased loan prepayments assumptions resulting from lower market interest rates. The increase in the year ended 2018 over the year ended 2017 was primarily due to higher MSR valuations resulting from slower prepayment speed assumptions in a higher rate environment.

Mortgage loan servicing fees earned on loans sold were \$778,000 for the year ended December 31, 2019 compared to \$821,000 and \$833,000 for the years ended 2018 and 2017, respectively. The Company was servicing \$271.4 million of mortgage loans at December 31, 2019 compared to \$279.9 million and \$285.8 million at December 31, 2018 and 2017, respectively.

Gain on sales of mortgage loans increased \$50,000, or 6.9%, to \$771,000 for the year ended December 31, 2019 compared to the year ended December 31, 2018, and decreased \$49,000, or 6.4%, to \$721,000 for the year ended December 31, 2018 compared to the year ended December 31, 2017. The Company sold loans totaling \$44.3 million for the year ended December 31, 2019 compared to \$37.0 million and \$33.8 million for the years ended December 31, 2018 and 2017, respectively. The increase for the year ended 2019 over the year ended 2018 was primarily due to an increase in refinancing activity due to the decrease in market interest rates. 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 increased \$48,000, or 28.2%, to \$218,000 for the year ended December 31, 2019 compared to the year ended December 31, 2018, and decreased \$82,000, or 32.5%, to \$170,000 for the year ended December 31, 2018 compared to the year ended December 31, 2017. The increase in the year ended 2019 over 2018 was primarily due to an increase in rental income received from other real estate owned. The decrease in the year ended 2018 over 2017 was 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.

Investment securities (losses) gains, net for the years ended December 31, 2019, 2018, and 2017 was as follows:

(in thousands)	2019			2018	2017
Investment securities (losses) gains, net					
Available for sale securities:					
Gains realized on sales	\$	6	\$	253	\$ 38
Losses realized on sales		(46)		_	(33)
Other-than-temporary impairment recognized		_		_	_
Other investment securities:					
Fair value adjustments, net		_		2	_
Investment securities (losses) gains, net	\$	(40)	\$	255	\$ 5

During the year ended December 31, 2019, the Company received \$21.5 million of proceeds from the sale of available for sale debt securities and recognized a net loss of \$40,000, compared to \$77.2 million and \$11.7 million of proceeds and recognized net gains of \$253,000 and \$5,000 for the years ended December 31, 2018 and 2017, respectively.

The sale transaction in 2019 provided liquidity necessary to fund the replacement of a major deposit account relationship. During 2018, the Company entered into a sale of a series of short term U.S. Treasury securities purchased with repurchase agreements in order to generate capital gains to offset capital losses that were to expire during 2018 and 2019. The sale transaction in 2017 was 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, 2019, 2018, and 2017 was as follows:

				\$ Cha	ange	% Cha	nge
(In thousands)	2019	2018	2017	19-'18	'18-'17	19-'18	'18-'17
Non-interest expense							
Salaries	\$ 15,876	\$ 17,109	\$ 16,227	\$ (1,233)	\$ 882	(7.2)%	5.4 %
Employee benefits	5,721	5,995	5,492	(274)	503	(4.6)	9.2
Occupancy expense, net	3,122	2,957	2,782	165	175	5.6	6.3
Furniture and equipment expense	2,847	3,001	2,683	(154)	318	(5.1)	11.9
Processing, network and bank card expense	3,882	3,484	3,643	398	(159)	11.4	(4.4)
Legal, examination, and professional fees	1,211	1,223	1,308	(12)	(85)	(1.0)	(6.5)
Advertising and promotion	1,256	1,233	1,255	23	(22)	1.9	(1.8)
Postage, printing, and supplies	871	996	925	(125)	71	(12.6)	7.7
Other	3,945	4,334	4,487	(389)	(153)	(9.0)	(3.4)
Total non-interest expense	\$ 38,731	\$ 40,332	\$ 38,802	\$ (1,601)	\$ 1,530	(4.0)%	3.9 %
Efficiency ratio*	67.2 %	74.8 %	74.8 %				
Number of full-time equivalent employees	278	288	333				

^{*} 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 decreased \$1.6 million, or 4.0%, to \$38.7 million for the year ended December 31, 2019 compared to the year ended December 31, 2018, and 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.

Salaries decreased \$1.2 million, or 7.2%, to \$15.9 million for the year ended December 31, 2019 compared to the year ended December 31, 2018, and 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. The decrease for the year ended 2019 over the year ended 2018 was primarily due to a reduction of full-time equivalent (FTE) employees during the year. FTE staff decreased 55, or 16.5%, since December 31, 2017. The increase for the year ended 2018 over the year ended 2017 was primarily due to a bonus that was paid in February 2018 to all eligible full-time 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.

Employee benefits decreased \$274,000, or 4.6%, to \$5.7 million for the year ended December 31, 2019 compared to the year ended December 31, 2018, and 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. The decrease for the year ended 2019 over the year ended 2018 was primarily due to a reduction in medical plan premiums due to a reduction of staff mentioned above, and a reduction in the periodic pension cost due to a higher assumed discount rate, partially offset by an increase in the 401(k) and profit-sharing contribution. The increase for the year ended 2018 over the year ended 2017 was primarily due to an increase in periodic pension cost due to a lower assumed discount rate.

Furniture and equipment expense decreased \$154,000, or 5.1%, to \$2.8 million for the year ended December 31, 2019 compared to the year ended December 31, 2018, and 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. The changes in the Company's furniture and equipment expense in the years presented were primarily due to expenses incurred for the new Columbia branch opening in 2019, upgrades to the Company's data processing infrastructure changing to a hosted network environment that began in 2017, and replacement of several computers below the Company's capitalization threshold.

Processing, network, and bank card expense increased \$398,000, or 11.4%, to \$3.9 million for the year ended December 31, 2019 compared to the year ended December 31, 2018, and 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. The increase for the year ended 2019 over 2018 was primarily due to a credit card software conversion and an increase in debit and credit card processing expenses. The decrease in the year ended 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.

Other non-interest expense decreased \$389,000, or 9.0%, to \$3.9 million for the year ended December 31, 2019 compared to the year ended December 31, 2018, and decreased \$153,000, or 3.4%, to \$4.3 million for the year ended December 31, 2018 compared to the year ended December 31, 2017. The decrease for the year ended 2019 over 2018 was primarily related to a FDIC assessment credit that began reducing the quarterly assessment in the third quarter of 2019 and will continue through the first quarter of 2020. The decrease in the year ended 2018 over 2017 was primarily due to a decrease in real estate foreclosure expenses.

Income taxes

Income taxes as a percentage of earnings before income taxes as reported in the consolidated financial statements were 19.2% for the year ended December 31, 2019 compared to 13.5% and 69.8% for the years ended December 31, 2018 and 2017, respectively.

The year-over-year changes in the effective tax rate are primarily attributable to the prior impacts of the Tax Cuts and Jobs Act (Tax Act), the prior impacts of the Company's state tax planning initiatives, and the increased earnings and branch sale gain in 2019. The Company's tax rate is lower than the federal statutory rate primarily as a result of tax-exempt income. The Company expects the effective tax rate to range between 18.5% and 19.5% going forward as the mix between taxable and tax-exempt income shifts.

Lending and Credit Management

Interest earned on the loan portfolio is a primary source of interest income for the Company. Net loans represented 77.5% of total assets as of December 31, 2019 compared to 76.6% as of December 31, 2018.

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)	2019	2018	2017	2016	2015
Commercial, financial, and agricultural	\$ 199,022	\$ 207,720	\$ 192,238	\$ 182,881	\$ 149,091
Real estate construction - residential	23,035	28,610	26,492	18,907	16,895
Real estate construction - commercial	84,998	106,784	98,340	55,653	33,943
Real estate mortgage - residential	253,071	241,517	246,754	259,900	256,086
Real estate mortgage - commercial	576,635	529,536	472,455	426,470	385,869
Installment and other consumer	32,464	32,460	32,153	30,218	23,196
Total loans	\$ 1,169,225	\$ 1,146,627	\$ 1,068,432	\$ 974,029	\$ 865,080
Percent of categories to total loans:					_
Commercial, financial, and agricultural	17.0 %	18.1 %	18.0 %	18.8 %	17.2 %
Real estate construction - residential	2.0	2.5	2.5	1.9	2.0
Real estate construction - commercial	7.3	9.3	9.2	5.7	3.9
Real estate mortgage - residential	21.6	21.1	23.1	26.7	29.6
Real estate mortgage - commercial	49.3	46.2	44.2	43.8	44.6
Installment and other consumer	2.8	2.8	3.0	3.1	2.7
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, 2019, and the composition of those loans between fixed rate and floating rate loans are as follows:

	Pri	ncipal Payments	Due	
		Over One	Over	
	One Year	Year Through	Five	
(In thousands)	Or Less	Five Years	Years	Total
Commercial, financial, and agricultural	\$ 72,693	\$ 72,172	\$ 54,157	\$ 199,022
Real estate construction - residential	17,520	4,164	1,351	23,035
Real estate construction - commercial	28,040	37,218	19,740	84,998
Real estate mortgage - residential	27,816	33,153	192,102	253,071
Real estate mortgage - commercial	71,118	266,756	238,761	576,635
Installment and other consumer	3,443	23,090	5,931	32,464
Total loans	\$ 220,630	\$ 436,553	\$ 512,042	\$ 1,169,225
Loans with fixed rates	112,998	385,596	124,470	623,064
Loans with floating rates	107,632	50,957	387,572	546,161
Total loans	\$ 220,630	\$ 436,553	\$ 512,042	\$ 1,169,225

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, 2019, the Company sold approximately \$44.3 million of loans to investors compared to \$37.0 million and \$33.8 million for the years ended December 31, 2018 and 2017, respectively. At December 31, 2019, the Company was servicing approximately \$271.4 million of loans sold to the secondary market compared to \$279.9 million at December 31, 2018, and \$285.8 million at December 31, 2017.

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 310-10-35 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:

(In thousands)		2019		2018		2017	2016		2015
Nonaccrual loans:									
Commercial, financial, and agricultural	\$	982	\$	1,857	\$	2,507	\$ 982	\$	308
Real estate construction - residential		—		—		—	_		
Real estate construction - commercial		137		153		97	50		102
Real estate mortgage - residential		2,135		2,720		1,956	1,888		2,322
Real estate mortgage - commercial		1,359		474		936	420		1,542
Installment and other consumer		141		210		176	89		144
Total	\$	4,754	\$	5,414	\$	5,672	\$ 3,429	\$	4,418
Loans contractually past - due 90 days or more and still									
accruing:									
Commercial, financial, and agricultural	\$		\$		\$	2	\$ _	\$	1
Real estate construction - residential		_		_		275	_		_
Real estate construction - commercial		_				_	_		_
Real estate mortgage - residential		304		156		28	54		_
Real estate mortgage - commercial							_		_
Installment and other consumer		12		6		23	11		5
Total	\$	316	\$	162	\$	328	\$ 65	\$	6
Total non-performing loans (a)		5,070		5,576		6,000	3,494		4,424
Other real estate owned and repossessed assets		12,781		13,691		13,182	14,162		15,992
Total non-performing assets	\$	17,851	\$	19,267	\$	19,182	\$ 17,656	\$	20,416
Loans (c)	\$ 1	,168,797	\$ 1	,146,044	\$ 1	,068,049	\$ 973,867	\$ 8	363,390
Allowance for loan losses to loans		1.07 %		1.02 %		1.02 %	1.02 %		1.00 %
Non-performing loans to loans (a)		0.43 %		0.49 %		0.56 %	0.36 %		0.51 %
Non-performing assets to loans (b)		1.53 %		1.68 %		1.80 %	1.81 %		2.36 %
Non-performing assets to assets (b)		1.20 %		1.30 %		1.34 %	1.37 %		1.70 %
Allowance for loan losses to non-performing loans		246.09 %		208.97 %		180.87 %	282.94 %		194.48 %

⁽a) Non-performing loans include loans 90 days past due and accruing, nonaccrual loans, and non-performing TDRs included in nonaccrual loans.

Total non-performing assets were \$17.9 million, or 1.53% of total loans, at December 31, 2019 compared to \$19.3 million, or 1.68% of total loans, at December 31, 2018. Non-performing loans included \$1.6 million and \$2.0 million of loans classified as TDRs at December 31, 2019 and 2018, respectively.

As of December 31, 2019, approximately \$9.0 million compared to \$5.2 million at December 31, 2018, of loans classified as substandard, which include performing TDRs, and are not included in the non-performing 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

⁽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.

believes the general allowance was sufficient to cover the risks and probable losses related to such loans at December 31, 2019 and December 31, 2018, respectively.

Total non-accrual loans at December 31, 2019 decreased \$660,000, or 12.2%, to \$4.8 million compared to \$5.4 million at December 31, 2018. The decrease in non-accrual loans primarily consisted of decreases in commercial, financial, and agricultural loans and real estate mortgage residential loans, partially offset by an increase in real estate mortgage commercial loans.

Loans past due 90 days and still accruing interest at December 31, 2019, were \$316,000 compared to \$162,000 at December 31, 2018. Other real estate owned and repossessed assets at December 31, 2019 were \$12.8 million compared to \$13.7 million at December 31, 2018. During the year ended December 31, 2019, \$452,000 of non-accrual loans, net of charge-offs taken, moved to other real estate owned and repossessed assets compared to \$1.1 million for the year ended December 31, 2018.

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

	December 31, 2019					December 31, 201				
	Number of	R	Recorded		Specific Number of		Recorded		Specific	
(In thousands)	contracts	In	vestment	Re	eserves	contracts	In	vestment	Re	eserves
Performing TDRs										
Commercial, financial and agricultural	5	\$	532	\$	177	6	\$	570	\$	174
Real estate mortgage - residential	6		1,615		33	9		2,073		72
Real estate mortgage - commercial	2		352		7	2		377		8
Installment and other consumer	2		36		2	3		44		4
Total performing TDRs	15	\$	2,535	\$	219	20	\$	3,064	\$	258
Non-performing TDRs										
Commercial, financial and agricultural	6	\$	496	\$	99	5	\$	1,042	\$	94
Real estate mortgage - residential	6		782		117	5		867		182
Real estate mortgage - commercial	2		266		_	_		_		_
Installment and other consumer	2		72		7	2		72		9
Total non-performing TDRs	16	\$	1,616	\$	223	12	\$	1,981	\$	285
Total TDRs	31	\$	4,151	\$	442	32	\$	5,045	\$	543

At December 31, 2019, loans classified as TDRs totaled \$4.1 million, with \$442,000 of specific reserves compared to \$5.0 million of loans classified as TDRs, with \$543,000 of specific reserves at December 31, 2018. 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, 2018 to December 31, 2019 was primarily due to approximately \$1.2 million of payments received, partially offset by \$347,000 of new loans designated as TDRs during the year ended December 31, 2019.

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)	2019	2018	2017	2016	2015
Allocation of allowance for loan losses at end of period:					
Commercial, financial, and agricultural	\$ 2,918	\$ 3,237	\$ 3,325	\$ 2,753	\$ 2,153
Real estate construction - residential	64	140	170	108	59
Real estate construction - commercial	369	757	807	413	644
Real estate mortgage - residential	2,118	2,071	1,689	2,385	2,439
Real estate mortgage - commercial	6,547	4,914	4,437	3,793	2,935
Installment and other consumer	381	334	345	274	273
Unallocated	80	199	79	160	101
Total	\$ 12,477	\$ 11,652	\$ 10,852	\$ 9,886	\$ 8,604

The allowance for loan losses was \$12.5 million, or 1.07%, of loans outstanding at December 31, 2019 compared to \$11.7 million, or 1.02%, of loans outstanding at December 31, 2018. The ratio of the allowance for loan losses to non-performing loans was 246.09% at December 31, 2019, compared to 208.97% at December 31, 2018.

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

(In thousands)	2019	2018	2017	2016	2015
Allocation of allowance for loan losses:					
Individually evaluated for impairment - specific reserves	\$ 615	\$ 1,194	\$ 1,333	\$ 1,080	\$ 1,540
Collectively evaluated for impairment - general reserves	11,862	10,458	9,519	8,806	7,064
Total	\$ 12,477	\$ 11,652	\$ 10,852	\$ 9,886	\$ 8,604

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, 2019, \$615,000 of the Company's allowance for loan losses was allocated to impaired loans totaling approximately \$7.4 million compared to \$1.2 million of the Company's allowance for loan losses allocated to impaired loans totaling approximately \$8.5 million at December 31, 2018. Management determined that \$2.6 million, or 35%, of total impaired loans required no reserve allocation at December 31, 2019 compared to \$2.1 million, or 25%, at December 31, 2018 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 asset 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. In the first quarter 2019, management adjusted the lookback period to begin with loss history in the first quarter 2012 as the starting point through the current quarter and it will continue to include this starting point going forward. Management determined that with the extended current economic recovery, the look-back period should be expanded to include the current economic cycle. This increasing look-back period will then be adjusted once a loss producing downturn is recognized by allowing the look-back period to shift forward by eliminating the earliest loss period and replenishing it with losses from the most recent period. Prior to 2019, 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.

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.

The more significant changes from December 31, 2018 to December 31, 2019 in the allocations of the allowance for loan losses to the loan portfolios listed above included the following:

Real estate mortgage – commercial increased by \$1.6 million primarily due to higher historical loss rates resulting from extending the look-back period back to the first quarter 2012. Real estate construction – commercial decreased \$388,000 primarily due to a reduction in the qualitative risk factors associated with this portfolio and commercial, financial, and agriculture decreased by \$320,000 primarily due to a reduction in the qualitative risk factors partially offset by the higher historical loss rates associated with this portfolio.

Provision

A \$1.2 million provision for loan losses was required for the year ended December 31, 2019 compared to \$1.5 million for the year ended December 31, 2018, and \$1.8 million for the year ended December 31, 2017. The decrease in the year ended 2019 over the years ended 2018 and 2017 was primarily due to improved credit quality and economic conditions used in assessing the risk in the portfolio and slower loan growth during 2019 that resulted in a slower growth in the calculated allowance for loan losses.

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

(In thousands)	2019	2018	2017	2016	2015
Analysis of allowance for loan losses:					
Balance beginning of period	\$ 11,652	\$ 10,852	\$ 9,886	\$ 8,604	\$ 9,099
Charge-offs:					
Commercial, financial, and agricultural	295	484	649	389	1,131
Real estate construction - residential	_	48	_	_	
Real estate construction - commercial	_	30	_	1	15
Real estate mortgage - residential	277	186	219	495	379
Real estate mortgage - commercial	25	38	45	147	363
Installment and other consumer	196	255	268	258	302
Total charge-offs	793	1,041	1,181	1,290	2,190
Recoveries:					
Commercial, financial, and agricultural	144	100	74	299	672
Real estate construction - residential	50	62	88	_	322
Real estate construction - commercial	_	_	_	502	
Real estate mortgage - residential	129	52	83	60	138
Real estate mortgage - commercial	40	58	32	140	165
Installment and other consumer	105	94	105	146	148
Total recoveries	468	366	382	1,147	1,445
Net charge-offs	325	675	799	143	745
Provision for loan losses	1,150	1,475	1,765	1,425	250
Balance end of period	\$ 12,477	\$ 11,652	\$ 10,852	\$ 9,886	\$ 8,604

Net Loan Charge-offs

The Company's net loan charge-offs were \$325,000, or 0.03% of average loans, for the year ended December 31, 2019 compared to net charge-offs of \$675,000, or 0.06% of average loans, for the year ended December 31, 2018, and \$799,000, or 0.08% of average loans for the year ended December 31, 2017.

The decrease in net charge-offs for the year ended December 31, 2019 compared to the years ended December 31, 2018 and 2017 was primarily due to an increase in recoveries primarily related to one commercial loan relationship recovery and one real estate mortgage – residential recovery received during the first quarter of 2019, and an overall reduction of loan charge-offs year over year.

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, 2019, the investment portfolio classified as available-for-sale represented 11.7% 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)	2019	2018
U.S. Treasury	\$ 995	\$ 1,952
U.S. government and federal agency obligations	8,047	9,966
U.S. government-sponsored enterprises	22,283	43,335
Obligations of states and political subdivisions	33,789	40,386
Mortgaged-backed securities	105,616	118,192
Other debt securities (a)	3,053	3,000
Bank issued trust preferred securities (a)	1,310	1,374
Total available for sale debt securities, at fair value	\$ 175,093	\$ 218,205

(a) Certain hybrid instruments possessing characteristics typically associated with debt obligations.

As of December 31, 2019, the maturity of debt securities in the investment portfolio was as follows:

(In thousands)	One Year Or Less	T	Over One Through ive Years	7	Over Five Through 'en Years	Т	Over en Years	,	Total	Weighted Average Yield
U.S. Treasury	\$ 245	\$	750	\$	_	\$	_	\$	995	2.20 %
U.S. government and federal agency obligations	_		4,235		3,262		550		8,047	2.19
U.S. government-sponsored enterprises	8,043		8,291		5,949		_		22,283	1.99
States and political subdivisions (2)	3,736		13,766		8,181		8,106		33,789	2.68
Mortgage-backed securities (1)	4,899		94,670		5,764		283	1	05,616	2.18
Other debt securities	_		_		3,053				3,053	6.00
Bank issued trust preferred securities	_		_		_		1,310		1,310	4.21
Total available-for-sale debt securities	\$ 16,923	\$	121,712	\$	26,209	\$	10,249	\$ 1	75,093	2.33 %
Weighted average yield	2.17 %	ó	2.15 %	ó	2.98 %	Ď	3.17 %	ó	2.33 %	

⁽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, 2019 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.

At December 31, 2019, \$14.8 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)	2019	2018
Federal Home Loan Bank of Des Moines stock	\$ 5,644	\$ 5,512
Midwest Independent Bank stock	151	151
Equity securities with readily determinable fair values	13	12
Total other investment securities	\$ 5,808	\$ 5,675

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

⁽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%.

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)	2019	2018
Federal funds sold and other overnight interest-bearing deposits	\$ 55,545	\$ 18,396
Certificates of deposit in other banks	10,862	12,247
Available-for-sale investment securities	175,093	218,205
Total	\$ 241,500	\$ 248,848

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 \$175.1 million at December 31, 2019 and included an unrealized net loss of \$30,000. The portfolio includes projected maturities and mortgage-backed securities pay-downs of approximately \$16.9 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 \$35.3 million and \$65.2 million at December 31, 2019 and 2018, respectively.

Total investment securities pledged for these purposes were as follows:

(In thousands)	2019	2018
Investment securities pledged for the purpose of securing:		
Federal Reserve Bank borrowings	\$ 9,385	\$ 9,397
Federal funds purchased and securities sold under agreements to repurchase	38,238	32,529
Other deposits	92,189	111,090
Total pledged, at fair value	\$ 139,812	\$ 153,016

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. Such deposits totaled \$1.03 billion and represented 87.0% of the Company's total deposits at December 31, 2019, compared to \$1.07 billion and represented 89.2% of the Company's total deposits at December 31, 2018. These core deposits are normally less volatile and are often tied to other products of the Company through long lasting relationships.

Core deposits at December 31, 2019 and 2018 were as follows:

(In thousands)	2019		2018
Core deposit base:			
Non-interest bearing demand	\$ 261,166	\$	262,857
Interest checking	227,662		215,432
Savings and money market	346,593		378,484
Other time deposits	197,089		211,715
Total	\$ 1,032,510	\$	1,068,488

Time deposits and certificates of deposit of \$250,000 and greater at December 31, 2019 and 2018 were \$104.3 million and \$104.9 million, respectively. The Company had brokered deposits totaling \$45.2 million and \$39.8 million at December 31, 2019 and 2018, 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, 2019, under agreements with these unaffiliated banks, the Bank may borrow up to \$50.0 million in federal funds on an unsecured basis and \$16.0 million on a secured basis. There were no federal funds purchased outstanding at December 31, 2019. 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, 2019, there were \$27.3 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, 2019.

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, 2019, the Bank had \$96.9 million in outstanding borrowings with the FHLB. In addition, the Company has \$49.5 million at December 31, 2019 in outstanding subordinated notes issued to wholly-owned grantor trusts, funded by preferred securities issued by the trusts.

Borrowings outstanding at December 31, 2019 and 2018 were as follows:

(In thousands)	2019		2018
Borrowings:			
Federal funds purchased and securities sold under agreements to repurchase	\$	27,272	\$ 24,647
Federal Home Loan Bank advances		96,895	95,126
Subordinated notes		49,486	49,486
Other borrowings		24	27
Total	\$	173,677	\$ 169,286

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.

		December 31, 2019						
		Federal					Federal	
		Federal	Funds Purchased			Federal	Funds Purchased	
(In thousands)	FHLB	Reserve Bank	Lines	Total	FHLB	Reserve Bank	Lines	Total
Advance equivalent	\$ 284,813	\$ 9,190	\$ 56,839	\$ 350,842	\$ 301,606	\$ 9,160	\$ 57,235	\$ 368,001
Letters of credit	(115,000)		_	(115,000)	(80,000)		_	(80,000)
Advances outstanding	(96,895)	_	_	(96,895)	(95,126)	_	(8,000)	(103,126)
Total available	\$ 72,918	\$ 9,190	\$ 56,839	\$ 138,947	\$ 126,480	\$ 9,160	\$ 49,235	\$ 184,875

At December 31, 2019, loans of \$512.3 million were pledged to the Federal Home Loan Bank as collateral for borrowings and letters of credit. At December 31, 2019, investments with a market value of \$18.3 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 \$78.1 million at December 31, 2019 compared to \$42.1 million at December 31, 2018. The \$36.0 million increase 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, 2019. Cash flow provided from operating activities consists mainly of net income adjusted for certain non-cash items. Operating activities provided cash flow of \$19.1 million for the year ended December 31, 2019.

Investing activities consisting mainly of purchases, sales and maturities of available for sale securities, and changes in the level of the loan portfolio, provided total cash of \$16.6 million. The cash inflow primarily consisted of \$77.1 million in proceeds from maturities, calls and

sales of investment securities, partially offset by a \$23.5 million increase in the loan portfolio, and \$31.1 million purchases of investment securities.

Financing activities provided cash of \$389,000, resulting primarily from a \$3.5 million increase in interest-bearing transaction accounts, \$4.0 million increase in demand deposits, and \$1.8 net FHLB advances, partially offset by a \$8.9 million decrease in time deposits. Future short-term liquidity needs arising from daily operations are not expected to vary significantly during 2020.

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 \$342.1 million in unused loan commitments and standby letters of credit as of December 31, 2019. 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 \$2.7 million and \$2.0 million for the years ended December 31, 2019 and 2018, respectively. A large portion of the Company's liquidity is obtained from the Bank in the form of dividends. The Bank declared and paid \$8.0 million and \$5.0 million in dividends to the Company during the years ended December 31, 2019 and 2018, respectively. At December 31, 2019 and 2018, the Company had cash and cash equivalents totaling \$2.6 million and \$1.3 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 to the higher requirements, the Basel III Rules established bank holding companies are required to maintain a common equity Tier 1 capital conservation buffer of at least 2.5% of risk-weighted assets over and above the minimum risk-based capital requirements. 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 began being 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 increased 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. At December 31, 2019, the capital conservation buffer requirement of 2.5%, effectively raised 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, 2019, 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:

							Minimum Required
							to be Considered
							Well-Capitalized
	2010	2010	2017	2017	2015	Minimum Capital Required - Basel III	Under Prompt Corrective Action
	2019	2018	2017	2016	2015	Fully Phased-In *	Banks
Risk-based capital ratios:							
Total capital ratio	14.89 %	13.28 %	12.93 %	13.88 %	14.78 %	10.5 %	10.0 %
Tier 1 capital ratio	13.04	11.21	10.72	11.42	12.03	8.5	8.0
Common Equity Tier 1 capital ratio	9.86	8.48	8.04	8.61	9.04	7.0	6.5
Tier 1 leverage ratio	10.73	9.55	9.33	9.87	9.84	4.0	5.0

^{*}At December 31, 2019 the Basel III capital conservation buffer requirement of 2.5% had been fully phased-in.

Stock Dividend For the eleventh consecutive year, on July 1, 2019, the Company distributed a four percent stock dividend to common shareholders of record at the close of business on June 15, 2019. For all periods presented, share information, including basic and diluted earnings per share, has been adjusted retroactively to reflect the stock dividend.

Repurchase Plan On September 18, 2019, the Company's Board of Directors authorized the purchase of up to \$5.0 million market value of the Company's common stock. Management was given discretion to determine the number and pricing of the shares to be purchased, as well as, the timing of any such purchases. There were no purchases made by or on behalf of the Company or any "affiliated purchaser" (as defined by applicable rules of the SEC) of shares of the Company's common stock during the fourth quarter of the year ended December 31, 2019.

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

The required payments of time deposits and other borrowed money, not including interest, at December 31, 2019 are as follows:

		Payments due by Period								
		Less than 1 1-3 3-5								
(In thousands)	Total	Year	Years	Years	Years					
Time deposits	\$ 311,024	\$ 201,397	\$ 93,586	\$ 16,041	\$ —					
Federal Home Loan Bank advances and other borrowed money	96,919	49,236	33,683	6,000	8,000					
Subordinated notes	49,486	_	_		49,486					
Total	457,429	250,633	127,269	22,041	57,486					

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, 2019 are as follows:

	Amount of Commitment Expiration per Period								
		Less than 1 1-3 3-5							
(In thousands)	Total	Year	Years	Years	Years				
Unused loan commitments	\$ 240,758	\$ 165,173	\$ 29,137	\$ 10,515	\$ 35,933				
Commitments to originate residential first and second mortgage loans	3,980	3,980		_					
Standby letters of credit	97,348	97,307	41	_	_				
Total	\$ 342,086	\$ 266,460	\$ 29,178	\$ 10,515	\$ 35,933				

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, 2019 and 2018.

	% Change in projected net i	nterest income					
Hypothetical shift in interest rates	December 31,						
(bps)	2019	2018					
200	1.07 %	0.26 %					
100	1.61 %	1.17 %					
(100)	0.78 %	3.39 %					
(200)	(0.51)%	4.19 %					

The change in our interest rate risk exposure from December 31, 2018 to December 31, 2019 was primarily due to the Company's balance sheet becoming relatively more sensitive to a rising rate environment. Conversely, in a falling rate environment, projected net interest income would decrease more than at the prior year-end. In addition, due to the low level of market interest rates at December 31, 2019, funding rates can only drop to zero while earning asset rates are at levels that allow for additional decreases. Management believes the change in projected net interest income from interest rate shifts of up 200 bps and down 200 bps is an acceptable level of interest rate risk.

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 three months ended December 31, 2019.

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.

Pension In August 2018, the FASB issued ASU 2018-14, Compensation - Retirement Benefits - Defined Benefit Plans -General (Subtopic 715-20) Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans. These amendments modify the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. ASU 2018-14 is effective for annual reporting periods beginning after December 15, 2020 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.

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, 2022. 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 by assessing different credit risk models. As a result of the FASB issuing a delay in the implementation of this ASU, the Company will extend its evaluation process over the new implementation deadline of January 1, 2023.

CONSOLIDATED FINANCIAL STATEMENTS

The following consolidated financial statements of the Company and report of the Company's independent auditors appear on the pages indicated.

	Page
Report of Independent Registered Public Accounting Firm	27
Consolidated Balance Sheets as of December 31, 2019 and 2018	28
Consolidated Statements of Income for each of the years ended December 31, 2019, 2018, and 2017	28
Consolidated Statements of Comprehensive Income for each of the years ended December 31, 2019, 2018, and 2017	28
Consolidated Statements of Stockholders' Equity for each of the years ended December 31, 2019, 2018, and 2017	28
Consolidated Statements of Cash Flows for each of the years ended December 31, 2019, 2018, and 2017	28
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Report of Independent Registered Public Accounting Firm

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

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, 2019 and 2018, 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, 2019, 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, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, 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, 2019, 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 16, 2020 expressed an adverse opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 1993.

St. Louis, Missouri March 16, 2020

HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES Consolidated Balance Sheets

(In thousands, except per share data)

		Decem	ber 3	1,
		2019		2018
ASSETS				
Cash and due from banks	\$	22,576	\$	23,687
Federal funds sold and other interest-bearing deposits		55,545		18,396
Cash and cash equivalents		78,121		42,083
Certificates of deposit in other banks		10,862		12,247
Available-for-sale debt securities, at fair value		175,093		218,205
Other investments		5,808		5,675
Total investment securities		180,901		223,880
Loans		1,169,225		1,146,627
Allowances for loan losses		(12,477)		(11,652)
Net loans		1,156,748		1,134,975
Premises and equipment - net		35,388		34,894
Mortgage servicing rights		2,482		2,931
Other real estate owned - net		12,781		13,691
Accrued interest receivable		6,481		6,162
Cash surrender value - life insurance		2,398		2,542
Other assets		6,800		8,277
Total assets	\$	1,492,962	\$	1,481,682
LIABILITIES AND STOCKHOLDERS' EQUITY				
Deposits				
Non-interest bearing demand	\$	261,166	\$	262,857
Savings, interest checking and money market		614,331		614,040
Time deposits \$250,000 and over		104,262		104,900
Other time deposits		206,762		216,671
Total deposits		1,186,521		1,198,468
Federal funds purchased and securities sold under agreements to repurchase		27,272		24,647
Federal Home Loan Bank advances and other borrowings		96,919		95,153
Subordinated notes		49,486		49,486
Operating lease liabilities		2,224		
Accrued interest payable		1,136		1,035
Other liabilities		14,366		13,479
Total liabilities		1,377,924		1,382,268
Stockholders' equity:		<i>y= y-</i>		, ,
Common stock, \$1 par value, authorized 15,000,000 shares; issued 6,519,874 and 6,278,481 shares,				
respectively		6,520		6,279
Surplus		55,727		50,173
Retained earnings		61,590		54,105
Accumulated other comprehensive loss, net of tax		(3,755)		(6,099)
Treasury stock; 243,638 shares, at cost		(5,044)		(5,044)
Total stockholders' equity		115,038		99,414
Total liabilities and stockholders' equity	\$	1,492,962	\$	1,481,682
A com monnes and stockholders equity	Ψ	1,172,702	Ψ	1,101,002

HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES Consolidated Statements of Income

		Year	er 31,				
(In thousands, except per share amounts)		2019	2	2018		2017	
INTEREST INCOME							
Interest and fees on loans	\$	58,414	\$	52,151	\$	46,596	
Interest on investment securities:							
Taxable		3,623		4,114		3,257	
Nontaxable		536		597		657	
Federal funds sold, other interest-bearing deposits, and certificates of deposit in other banks		1,125		699		267	
Dividends on other investments		272		218		158	
Total interest income		63,970		57,779		50,935	
INTEREST EXPENSE							
Interest on deposits:							
Savings, interest checking and money market		5,242		5,433		2,329	
Time deposit accounts \$250,000 and over		2,110		1,272		469	
Time deposits		3,026		2,132		1,755	
Total interest expense on deposits		10,378		8,837		4,553	
Interest on federal funds purchased and securities sold under agreements to repurchase		140		603		113	
Interest on Federal Home Loan Bank advances		2,338		1,517		1,590	
Interest on subordinated notes		2,376		2,229		1,751	
Total interest expense on borrowings		4,854		4,349		3,454	
Total interest expense		15,232		13,186		8,007	
Net interest income		48,738		44,593		42,928	
Provision for loan losses		1,150		1,475		1,765	
Net interest income after provision for loan losses		47,588		43,118		41,163	
NON-INTEREST INCOME		. ,,				,	
Service charges and other fees		3,611		3,736		3,437	
Bank card income and fees		3,061		2,754		2,614	
Trust department income		1,237		1,166		1,137	
Real estate servicing fees, net		39		794		740	
Gain on sale of mortgage loans, net		771		721		770	
Other		218		170		252	
Total non-interest income		8,937		9,341		8,950	
Investment securities (losses) gains, net		(40)		255		5	
Gain on branch sale, net		2,183		_		_	
NON-INTEREST EXPENSE		,					
Salaries and employee benefits		21,597		23,104		21,719	
Occupancy expense, net		3,122		2,957		2,782	
Furniture and equipment expense		2,847		3,001		2,683	
Processing, network, and bank card expense		3,882		3,484		3,643	
Legal, examination, and professional fees		1,211		1,223		1,308	
Advertising and promotion		1,256		1,233		1,255	
Postage, printing, and supplies		871		996		925	
Other		3,945		4,334		4,487	
Total non-interest expense		38,731		40,332		38,802	
Income before income taxes		19,937		12,382		11,316	
Income tax expense		3,823		1,668		7,902	
Net income	\$	16,114	\$	10,714	\$	3,414	
Basic earnings per share	\$	2.57	\$	1.71	\$	0.54	
Diluted earnings per share	\$	2.57	\$	1.71	\$	0.54	
Diaced carrings per share	Ą	2.31	Ψ	1./1	φ	0.54	

HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES Consolidated Statements of Comprehensive Income

	Years Ended December 31,					
(In thousands)		2019		2018		2017
Net income	\$	16,114	\$	10,714	\$	3,414
Other comprehensive income (loss), net of tax						
Investment securities available-for-sale:						
Unrealized losses (gains) on investment securities available-for-sale, net of tax		3,400		(955)		(23)
Adjustment for losses (gains) on sale of investment securities, net of tax		32		_		(3)
Defined benefit pension plans:						
Net (loss) gain arising during the year, net of tax		(1,150)		345		(673)
Amortization of prior service cost included in net periodic pension cost, net of tax		62		173		56
Total other comprehensive income (loss)	·	2,344		(437)	·	(643)
Total comprehensive income	\$	18,458	\$	10,277	\$	2,771

HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES Consolidated Statements of Stockholders' Equity

(In thousands)	Common Stock	Surplus	Retained Earnings	 cumulated Other nprehensive Loss	Treasury Stock	Total Stock - holders' Equity
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 (\$0.04 per share)	225	3,941	(4,166)	_	_	
Purchase of treasury stock	_	_	_	_	(878)	(878)
Cash dividends declared, common stock (\$0.27 per share)			(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 (\$0.04 per share)	232	4,782	(5,014)	_	_	
Cash dividends declared, common stock (\$0.37 per share)			(2,190)			(2,190)
Balance, December 31, 2018	\$ 6,279	\$ 50,173	\$ 54,105	\$ (6,099)	\$ (5,044)	\$ 99,414
Net income	_	_	16,114	_	_	16,114
Other comprehensive income	_	_	_	2,344	_	2,344
Stock dividend (\$0.04 per share)	241	5,554	(5,795)	_	_	_
Cash dividends declared, common stock (\$0.46 per share)			(2,834)			(2,834)
Balance, December 31, 2019	\$ 6,520	\$ 55,727	\$ 61,590	\$ (3,755)	\$ (5,044)	\$ 115,038

HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES Consolidated Statements of Cash Flows

	_	Year	s End	led December	31,	
(In thousands)		2019		2018		2017
Cash flows from operating activities:						
Net income	\$	16,114	\$	10,714	\$	3,414
Adjustments to reconcile net income to net cash provided by operating activities:		1.150		1 475		1.765
Provision for loan losses		1,150		1,475		1,765
Depreciation expense Net amortization of investment securities, premiums, and discounts		2,062 1,386		1,797 1,506		1,735 1,664
Change in fair value of mortgage servicing rights		739		1,300		93
Investment securities (losses) gains, net		40		(255)		(5)
Loss on sales and dispositions of premises and equipment		48		3		123
Gain on sales and dispositions of other real estate		(122)		(14)		(45)
Gain on branch sale, net		(2,183)		`—`		_
Provision for other real estate owned		49		26		284
Operating lease expense		(201)		_		_
Increase in accrued interest receivable		(319)		(535)		(444
Increase in cash surrender value - life insurance		(78)		(58)		(75
Decrease (increase) in other assets		1,142		854		(808)
Decrease in deferred tax asset due to tax reform reclass		_				4,105
Increase in accrued interest payable		101		481		56
Decrease (increase) in other liabilities		(718)		(26.460)		923
Origination of mortgage loans for sale Proceeds from the sale of mortgage loans		(43,355) 44,281		(36,469) 36,990		(33,245
Gain on sale of mortgage loans, net		(771)		(721)		(770
Other, net		(274)		(186)		(85)
Net cash provided by operating activities		19,091		16,302		12,479
Cash flows from investing activities:		17,071		10,302		12,777
Purchase of certificates of deposit in other banks		(988)		(8,787)		(3,460)
Proceeds from maturities of certificates of deposit in other banks		2,373		(0,101)		1,000
Net increase in loans		(23,530)		(79,298)		(95,355)
Purchase of available-for-sale debt securities		(31,106)		(103,078)		(64,611)
Proceeds from maturities of available-for-sale debt securities		39,467		34,586		31,053
Proceeds from calls of available-for-sale debt securities		16,165		1,685		8,175
Proceeds from sales of available-for-sale debt securities		21,503		77,168		11,653
Purchases of FHLB stock		(6,522)		(4,713)		(2,483)
Proceeds from sales of FHLB stock		6,390		5,591		1,242
Purchases of premises and equipment		(2,168)		(2,326)		(1,266)
Proceeds from sales of premises and equipment		17		13		12
Proceeds from Bank owned life insurance policy Payment for branch sale, net		(6.700)		_		_
Proceeds from sales of other real estate and repossessed assets		(6,700) 1,435		585		1,115
Net cash provided by (used in) investing activities		16,558		(78,574)		(112,925)
Cash flows from financing activities:		10,550		(70,574)		(112,723
Net increase in demand deposits		3,999		17,477		9,405
Net increase in interest-bearing transaction accounts		3,548		29,572		115,737
Net (decrease) increase in time deposits		(8,865)		25,607		(9,996)
Net increase (decrease) in federal funds purchased and securities sold under agreements to repurchase		2,625		(2,913)		(3,947)
Repayment of FHLB advances and other borrowings		(176,708)		(220,542)		(183,188)
FHLB advances		178,474		194,313		211,670
Issuance of stock under equity compensation plan		_		135		_
Purchase of treasury stock		_		(179)		(878)
Cash dividends paid - common stock		(2,684)		(1,993)		(1,474)
Net cash provided by financing activities		389		41,477		137,329
Net increase (decrease) in cash and cash equivalents		36,038		(20,795)		36,883
Cash and cash equivalents, beginning of year		42,083		62,878		25,995
Cash and cash equivalents, end of year	\$	78,121	\$	42,083	\$	62,878
Supplemental disclosures of cash flow information:						
Cash paid during the year for: Interest	\$	15,150	\$	12,719	\$	7,951
Income taxes	\$	3,620	\$	241	\$	3,975
Noncash investing and financing activities:		-,	-			-,- /0
Other real estate and repossessed assets acquired in settlement of loans	\$	452	\$	1,106	\$	374
Net deposits and fixed assets transferred to other assets related to the Branson branch sale	\$	(8,885)	\$	_		_
Right of use assets obtained in exchange for new operating lease liabilities Stock dividends	\$ \$	2,424 5,795	\$ \$	5,014	\$	4,166
Stock dividends	Φ	3,173	Φ	5,014	φ	7,100

HAWTHORN BANCSHARES, INC. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2019, 2018, and 2017

(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 \$428,000 at December 31, 2019 compared to \$583,000 at December 31, 2018.

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

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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. Consumer loans and real estate loans secured by one to four family residential properties are exempt from these non-accrual guidelines. These loans are placed on non-accrual after 120 days past due. 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 nonperforming 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 look-back period beginning January 1, 2012 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.

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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.

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-than-temporary 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.

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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 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.

Notes to the Consolidated Financial Statements

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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 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.

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, 2019, 2018, and 2017.

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 14, 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 grant-date fair value of the award, recognizing the cost over the requisite service period. The fair value of an award is estimated using the Black-Scholes 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 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

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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, 2019, the Company paid a special stock dividend of four percent to shareholders of record at the close of business on June 15, 2019. 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 the Company, completed the sale of its branch located in Branson, Missouri with total deposits of approximately \$10.6 million to Branson Bank in Branson, Missouri. The transaction excludes loans assigned to the branch. The sale resulted in a pre-tax gain of approximately \$2.2 million, or \$1.7 million after tax.

Reclassifications Certain prior year information has been reclassified to conform to the 2019 presentation.

The following represents significant new accounting principles adopted in 2019:

Leases On January 1, 2019, the Company adopted ASU No. 2016-02, Leases (Topic 842) which requires that lessees and lessors recognize lease assets and lease liabilities on the balance sheet and disclose key information about leasing arrangements. The ASU primarily affects lessee accounting, which requires the lessee to recognize a right-of-use asset (ROU) and a liability to make lease payments for those leases classified as operating leases. 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 Company's operating leases primarily relate to office space and bank branches.

In January 2018, the FASB issued ASU 2018-01, which allows entities the option to apply the provisions of the new lease guidance at the effective date without adjusting the comparative periods presented. In July 2018, the FASB issued ASU 2018-10, which provides narrow-scope improvements to the lease standard and ASU 2018-11, which allows entities to choose an additional transition method, under which an entity initially applies the new lease standard at the adoption date and recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. Under this transitional method, the entity shall recognize and measure the leases that exist at the adoption date and the prior comparative periods are not adjusted. The Company adopted this ASU as of January 1, 2019 using the transitional method. In addition, the Company utilized the practical expedients that allowed it to retain the classifications of existing leases, not re-assess if existing leases have initial direct costs, and hindsight when determining the lease term and assessment of impairment. The adoption of ASU 2016-02 and related transition guidance resulted in the recording of right-of-use assets and lease liabilities on the consolidated balance sheets of \$2.3 million and \$2.3 million at the adoption date, respectively; however, it did not have a material impact on the Company's other consolidated financial statements. See Note 9 - Leases for additional information.

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. The ASU did not have a significant effect on the Company's Consolidated Financial Statements.

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(2) Loans and Allowance for Loan Losses

Loans

A summary of loans, by major class within the Company's loan portfolio, at December 31, 2019 and 2018 is as follows:

(in thousands)	2019	2018
Commercial, financial, and agricultural	\$ 199,022	\$ 207,720
Real estate construction - residential	23,035	28,610
Real estate construction - commercial	84,998	106,784
Real estate mortgage - residential	253,071	241,517
Real estate mortgage - commercial	576,635	529,536
Installment and other consumer	32,464	32,460
Total loans	\$ 1,169,225	\$ 1,146,627

The Bank grants real estate, commercial, installment, and other consumer loans to customers located within the communities surrounding Jefferson City, Columbia, Clinton, Warsaw, Springfield, 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, 2019, \$512.3 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, 2018	\$ 6,004
New loans	1,197
Amounts collected	(1,600)
Balance at December 31, 2019	\$ 5,601

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.

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Allowance for loan losses

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

(in thousands)	Fin	mmercial, ancial, & ricultural	Cor	eal Estate astruction - esidential	Co	eal Estate nstruction - ommercial	M	eal Estate ortgage - esidential	M	al Estate ortgage - mmercial	an	tallment d other nsumer	Un- ocated	Tota	al_
Balance at December 31, 2016	\$	2,753	\$	108	\$	413	\$	2,385	\$	3,793	\$	274	\$ 160	\$ 9,8	86
Additions:															
Provision for loan losses		1,147		(26)		394		(560)		657		234	(81)	1,7	65
Deductions:															
Loans charged off		649		_		_		219		45		268	—	1,1	81
Less recoveries on loans		(74)		(88)		_		(83)		(32)		(105)	_	(3	82)
Net loans charged off		575		(88)		_		136		13		163	_	7	199
Balance at December 31, 2017	\$	3,325	\$	170	\$	807	\$	1,689	\$	4,437	\$	345	\$ 79	\$ 10,8	52
Additions:		-		_		<u>.</u>		_				<u> </u>	-		
Provision for loan losses		296		(44)		(20)		516		457		150	120	1,4	75
Deductions:															
Loans charged off		484		48		30		186		38		255	_	1,0	41
Less recoveries on loans		(100)		(62)		_		(52)		(58)		(94)	_	(3	66)
Net loans charged off		384		(14)		30		134		(20)		161	_	6	75
Balance at December 31, 2018	\$	3,237	\$	140	\$	757	\$	2,071	\$	4,914		334	\$ 199	\$ 11,6	52
Additions:															
Provision for loan losses		(168)		(126)		(388)		195		1,618		138	(119)	1,1	50
Deductions:															
Loans charged off		295		_		_		277		25		196	_	7	93
Less recoveries on loans		(144)		(50)		_		(129)		(40)		(105)	_	(4	68)
Net loans charged off		151		(50)		_		148		(15)		91	_	3	325
Balance at December 31, 2019	\$	2,918	\$	64	\$	369	\$	2,118	\$	6,547	\$	381	\$ 80	\$ 12,4	77

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 the first quarter 2019, management adjusted the look-back period to begin with loss history in the first quarter 2012 and continue to include this starting point going forward. Management determined that with the current economic recovery continuing to set records for its length, the look-back period needed to be expanded to account for this extended economic cycle. This ever increasing look-back period will then be adjusted once a loss producing downturn is recognized by allowing the look-back period to shift forward by eliminating the earliest loss period and replenishing it with losses from the most recent period. Prior to 2019, 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.

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The following table illustrates the allowance for loan losses and recorded investment by portfolio segment:

	mmercial, ancial, and	 eal Estate	eal Estate	 eal Estate Iortgage -	eal Estate lortgage -	 stallment ad Other	1	U n-		
(in thousands)	gricultural	esidential	 ommercial	esidential	mmercial	onsumer		cated		Total
December 31, 2019										
Allowance for loan losses:										
Individually evaluated for impairment	\$ 311	\$ 	\$ 	\$ 264	\$ 23	\$ 17	\$		\$	615
Collectively evaluated for impairment	2,607	64	369	1,854	6,524	364		80		11,862
Total	\$ 2,918	\$ 64	\$ 369	\$ 2,118	\$ 6,547	\$ 381	\$	80	\$	12,477
Loans outstanding:										
Individually evaluated for impairment	\$ 1,514	\$ _	\$ 137	\$ 3,856	\$ 1,711	\$ 177	\$	_	\$	7,395
Collectively evaluated for impairment	197,508	23,035	84,861	249,215	574,924	32,287		_	1	,161,830
Total	\$ 199,022	\$ 23,035	\$ 84,998	\$ 253,071	\$ 576,635	\$ 32,464	\$	_	\$ 1	,169,225
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	\$	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
Total	\$ 207,720	\$ 28,610	\$ 106,784	\$ 241,517	\$ 529,536	\$ 32,460	\$	_	\$ 1	,146,627

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 \$7.4 million and \$8.5 million at December 31, 2019 and 2018, 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, 2019, \$3.0 million of impaired loans were evaluated based on the fair value less estimated selling costs of the loans' collateral compared to \$3.8 million at December 31, 2018. Once the impairment amount is calculated, a specific reserve allocation is recorded. At December 31, 2019, \$615,000 of the Company's allowance for loan losses was allocated to impaired loans totaling \$7.4 million compared to \$1.2 million of the Company's allowance for loan losses allocated to impaired loans totaling approximately \$8.5 million at December 31, 2018. Management determined that \$2.6 million, or 35%, of total impaired loans required no reserve allocation at December 31, 2019 compared to \$2.1 million, or 25%, at December 31, 2018 primarily due to adequate collateral values, acceptable payment history and adequate cash flow ability.

The categories of impaired loans at December 31, 2019 and 2018 are as follows:

(in thousands)	 2019	2018
Non-accrual and non-performing TDRs	\$ 4,860	\$ 5,414
Performing TDRs	2,535	3,064
Total impaired loans	\$ 7,395	\$ 8,478

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The following tables provide additional information about impaired loans at December 31, 2019 and 2018, respectively, segregated between loans for which an allowance has been provided and loans for which no allowance has been provided.

	Unpaid						
	R	ecorded	P	rincipal		Specific	
(in thousands)	In	vestment]	Balance]	Reserves	
December 31, 2019							
With no related allowance recorded:							
Commercial, financial and agricultural	\$	342	\$	487	\$	_	
Real estate - construction commercial		137		173		_	
Real estate - residential		697		784		_	
Real estate - commercial		1,388		1,433			
Installment and other consumer		12		12			
_ Total	\$	2,576	\$	2,889	\$		
With an allowance recorded:							
Commercial, financial and agricultural	\$	1,172	\$	1,470	\$	311	
Real estate - residential		3,159		3,482		264	
Real estate - commercial		323		425		23	
Installment and other consumer		165		189		17	
Total	\$	4,819	\$	5,566	\$	615	
Total impaired loans	\$	7,395	\$	8,455	\$	615	

	Unpaid						
(in thousands)		ecorded		rincipal		Specific Reserves	
December 31, 2018	1111	Investment Balance				leserves	
With no related allowance recorded:							
Commercial, financial and agricultural	\$	1,264	\$	1,550	\$		
Real estate - construction commercial	Ψ	153	Ψ	180	Ψ		
Real estate - residential		561		602			
Real estate - commercial		115		119			
Total	\$	2,093	\$	2,451	\$		
	Φ	2,093	Ф	2,431	Φ		
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	

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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, 2019 and 2018:

	2	019		2018					
(in thousands)	Average Recorded Investment		Interest Recognized For the Period Ended	Average Recorded Investment		Interest Recognized For the Period Ended			
With no related allowance recorded:									
Commercial, financial and agricultural	\$ 805	\$	_	\$	1,302	\$	_		
Real estate - construction commercial	145		_		120		_		
Real estate - residential	685		_		901		10		
Real estate - commercial	1,062		6		59		22		
Installment and other consumer	6		_		34		_		
Total	\$ 2,703	\$	6	\$	2,416	\$	32		
With an allowance recorded:									
Commercial, financial and agricultural	\$ 1,097	\$	40	\$	1,394	\$	32		
Real estate - construction residential	_		_		15		_		
Real estate - residential	3,583		88		4,169		99		
Real estate - commercial	334		28		763		34		
Installment and other consumer	199		3		206		2		
Total	\$ 5,213	\$	159	\$	6,547	\$	167		
Total impaired loans	\$ 7,916	\$	165	\$	8,963	\$	199		

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 \$165,000 and \$199,000, for the years ended December 31, 2019 and 2018, 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 non-accrual 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. Subsequent interest payments received on non-accrual 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. 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.

Notes to the Consolidated Financial Statements

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The following table provides aging information for the Company's past due and non-accrual loans at December 31, 2019 and 2018.

	L	urrent or less Than 30 Days	30	- 89 Days	Pas	Days st Due d Still				
(in thousands)	I	Past Due	P	ast Due	Ac	cruing	Nor	1-Accrual		Total
December 31, 2019										
Commercial, Financial, and Agricultural	\$	197,828	\$	212	\$		\$	982	\$	199,022
Real Estate Construction - Residential		22,468		567		_		_		23,035
Real Estate Construction - Commercial		84,861		_				137		84,998
Real Estate Mortgage - Residential		249,944		688		304		2,135		253,071
Real Estate Mortgage - Commercial		575,140		136				1,359		576,635
Installment and Other Consumer		32,179		132		12		141		32,464
Total	\$ 1	,162,420	\$	1,735	\$	316	\$	4,754	\$]	1,169,225
December 31, 2018		<u>.</u>		_		_		_		
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	\$ 1	1,146,627

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 are identified that may result in the borrower being unable to meet repayment terms or the Company's credit position could deteriorate 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 that are accruing interest are classified as performing TDRs. Loans classified as TDRs, that are not accruing interest or is 90 days past due are classified as nonperforming TDRs. 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.

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The following table presents the risk categories by class at December 31, 2019 and 2018.

	mmercial, nancial, &		Real Estate Construction -		eal Estate istruction -	Real Estate Mortgage -	Real Estate Mortgage -		Installment and other		
(in thousands)	gricultural	Residential		Commercial		Residential	Commercial		Consumer		Total
At December 31, 2019											
Watch	\$ 16,288	\$	763	\$	8,484	\$ 15,280	\$	37,271	\$		\$ 78,086
Substandard	3,249		_		273	2,291		677		—	6,490
Performing TDRs	532		_		_	1,615		352		36	2,535
Non-accrual and non-performing TDRs	982		_		137	2,241		1,359		141	4,860
Total	\$ 21,051	\$	763	\$	8,894	\$ 21,427	\$	39,659	\$	177	\$ 91,971
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 and non-performing TDRs	1,857		_		153	2,720		474		210	5,414
Total	\$ 11,351	\$	588	\$	4,216	\$ 18,994	\$	37,961	\$	265	\$ 73,375

Troubled Debt Restructurings

At December 31, 2019, loans classified as TDRs totaled \$4.1 million, of which \$1.6 million were classified as non-performing TDRs and \$2.5 million were classified as performing TDRs. At December 31, 2018, loans classified as TDRs totaled \$5.0 million, of which \$2.0 million were classified as non-performing TDRs and \$3.0 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 \$442,000 and \$543,000 related to TDRs were allocated to the allowance for loan losses at December 31, 2019 and 2018, respectively.

The following table summarizes loans that were modified as TDRs during the years ended December 31, 2019 and 2018.

			2019		2018							
	Rec	orded	Investme	ent (1)	Red	ent (1)						
	Number of]	Pre-	Po	ost-	Number of Pre-			Post-			
(in thousands)	Contracts	Contracts Modification Modification		Contracts Modific		Mo	dification					
Troubled Debt Restructurings												
Commercial, financial and agricultural	2	\$	80	\$	58	3	\$ 510	\$	502			
Real estate mortgage - residential			_		—	2	149		147			
Real estate mortgage - commercial	2		267		266	_	_		_			
Installment and other consumer	_		_		_	5	185		117			
Total	4	\$	347	\$	324	10	\$ 844	\$	766			

⁽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, 2019, four loans meeting the TDR criteria were modified compared to ten loans during the year ended December 31, 2018.

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 commercial loan modified as a TDR with a \$7,000 balance, where a concession was made and subsequently defaulted and was moved to non-accrual status and some collateral was liquidated to pay down the balance during the year

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ended December 31, 2019, within twelve months of its modification date. This is compared to 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. See *Lending and Credit Management* section for further information.

(3) Other Real Estate Acquired in Settlement of Loans

(in thousands)	2019	2018
Commercial	\$ 1,155	\$ 1,168
Real estate construction - residential	_	179
Real estate construction - commercial	11,553	12,101
Real estate mortgage - residential	230	336
Real estate mortgage - commercial	2,799	2,909
Total	\$ 15,737	\$ 16,693
Less valuation allowance for other real estate owned	(2,956)	(3,002)
Total other real estate owned	\$ 12,781	\$ 13,691

Changes in the net carrying amount of other real estate owned for the years indicated:

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
Balance at December 31, 2018	16,693
Additions	452
Proceeds from sales	(1,435)
Charge-offs against the valuation allowance for other real estate owned, net	(95)
Net gain on sales	122
Total other real estate owned	\$ 15,737
Less valuation allowance for other real estate owned	(2,956)
Balance at December 31, 2019	\$ 12,781

At December 31, 2019, \$252,000 of consumer mortgage loans secured by residential real estate properties were in the process of foreclosure compared to \$200,000 of consumer mortgage loans in the process of foreclosure at December 31, 2018.

Activity in the valuation allowance for other real estate owned in settlement of loans for the years indicated:

(in thousands)	2019	2018	2017
Balance, beginning of period	\$ 3,002	\$ 3,221	\$ 3,129
Provision for other real estate owned	49	26	284
Charge-offs	(95)	(245)	(192)
Balance, end of period	\$ 2,956	\$ 3,002	\$ 3,221

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, 2019 and 2018 were as follows:

	Total			
	Amortized	 Gross Unrealized		Fair
(in thousands)	Cost	Gains	Losses	Value
December 31, 2019				
U.S. Treasury	\$ 987	\$ 8	\$ —	\$ 995
U.S. government and federal agency obligations	8,124	—	(77)	8,047
U.S. government-sponsored enterprises	22,300	41	(58)	22,283
Obligations of states and political subdivisions	33,704	144	(59)	33,789
Mortgage-backed securities	105,522	522	(428)	105,616
Other debt securities (a)	3,000	53	_	3,053
Bank issued trust preferred securities (a)	1,486	_	(176)	1,310
Total available-for-sale securities	\$ 175,123	\$ 768	\$ (798)	\$ 175,093
December 31, 2018				
U.S. Treasury	\$ 1,984	\$ _	\$ (32)	\$ 1,952
U.S. government and federal agency obligations	10,235	_	(269)	9,966
U.S. 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

⁽a) Certain hybrid instruments possessing characteristics typically associated with debt obligations.

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 \$139.8 million and \$153.0 million at December 31, 2019 and December 31, 2018, respectively, were pledged to secure public funds, securities sold under agreements to repurchase, and for other purposes as required or permitted by law.

Notes to the Consolidated Financial Statements

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The amortized cost and fair value of debt securities classified as available-for-sale at December 31, 2019, 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)	A	Amortized Cost		Fair Value
Due in one year or less	\$	12,023	\$	12,023
Due after one year through five years		27,002		27,043
Due after five years through ten years		20,448		20,445
Due after ten years		10,128		9,966
Total		69,601		69,477
Mortgage-backed securities		105,522		105,616
Total available-for-sale securities	\$	175,123	\$	175,093

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)	2019	2018		
Other securities:				
FHLB stock	\$ 5,644	\$	5,512	
MIB stock	151		151	
Equity securities with readily determinable fair values	13		12	
Total other investment securities	\$ 5,808	\$	5,675	

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, 2019 and December 31, 2018 were as follows:

	Less than	12 n	nonths	12 month	is or more	Total	Total
	Fair		realized	Fair	Unrealized	Fair	Unrealized
(in thousands)	Value]	Losses	Value	Losses	Value	Losses
At December 31, 2019							
U.S. government and federal agency obligations	\$ 6,238	\$	(69)	\$ 1,809	\$ (8)	\$ 8,047 \$	\S (77)
U.S. government-sponsored enterprises	5,949		(47)	7,488	(11)	13,437	(58)
Obligations of states and political subdivisions	10,729		(53)	1,931	(6)	12,660	(59)
Mortgage-backed securities	5,444		(37)	40,120	(391)	45,564	(428)
Bank issued trust preferred securities	_		_	1,310	(176)	1,310	(176)
Total	\$ 28,360	\$	(206)	\$ 52,658	\$ (592)	\$ 81,018	\$ (798)
(in thousands)							
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)
U.S. 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)

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The total available for sale portfolio consisted of approximately 368 securities at December 31, 2019. The portfolio included 128 securities having an aggregate fair value of \$81.0 million that were in a loss position at December 31, 2019. Securities identified as temporarily impaired which had been in a loss position for 12 months or longer had a fair value of \$52.7 million at December 31, 2019. The \$798,000 aggregate unrealized loss included in accumulated other comprehensive loss at December 31, 2019 was caused by interest rate fluctuations.

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 totaled \$174.8 million at fair value 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.

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, 2019 and 2018, 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)	2019	2018	2017
Investment securities (losses) gains, net			
Available for sale securities:			
Gains realized on sales	\$ 6	\$ 253	\$ 38
Losses realized on sales	(46)	_	(33)
Other-than-temporary impairment recognized	_	_	_
Other investment securities:			
Fair value adjustments, net	_	2	_
Investment securities (losses) gains, net	\$ (40)	\$ 255	\$ 5

(5) Premises and Equipment

A summary of premises and equipment at December 31, 2019 and 2018 is as follows:

(in thousands)	2019	2018
Land and land improvements	\$ 9,433	\$ 9,917
Buildings and improvements	34,926	35,674
Furniture and equipment	14,081	14,163
Operating leases - right of use asset	2,425	_
Construction in progress	77	754
Total	60,942	60,508
Less accumulated depreciation	25,554	25,614
Premises and equipment, net	\$ 35,388	\$ 34,894

Depreciation expense for the years ended December 31, 2019, 2018, and 2017 was as follows:

(in thousands)	2019	2018	2017
Depreciation expense	\$ 2,062	\$ 1,797	\$ 1,735

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(6) Intangible Assets

Mortgage Servicing Rights

At December 31, 2019 the Company was servicing \$271.4 million of loans sold to the secondary market compared to \$279.9 million and \$285.8 million at December 31, 2018 and 2017, respectively. Mortgage loan servicing fees, reported in real estate servicing fees, net, earned on loans sold and serviced for others were \$778,000, \$821,000, and \$833,000, for the years ended December 31, 2019, 2018, and 2017, respectively.

The table below presents changes in mortgage servicing rights (MSRs) for the years ended December 31, 2019, 2018, and 2017.

(in thousands)	2019	2018	2017
Balance at beginning of period	\$ 2,931	\$ 2,713	\$ 2,584
Originated mortgage servicing rights	290	245	222
Changes in fair value:			
Due to changes in model inputs and assumptions (1)	(434)	286	364
Other changes in fair value (2)	(305)	(313)	(457)
Total changes in fair value	(739)	(27)	(93)
Balance at end of period	\$ 2,482	\$ 2,931	\$ 2,713

⁽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.

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, 2019 and 2018:

	2019	2018
Weighted average constant prepayment rate	13.42 %	8.87 %
Weighted average note rate	3.93 %	3.95 %
Weighted average discount rate	8.61 %	10.28 %
Weighted average expected life (in years)	4.8	6.3

(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 \$104.3 million and \$104.9 million at December 31, 2019 and 2018, respectively. The Company had brokered deposits totaling \$45.2 million and \$39.8 million at December 31, 2019 and 2018, respectively.

⁽²⁾ Other changes in fair value reflect changes due to customer payments and passage of time.

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The scheduled maturities of total time deposits at December 31, 2019 were as follows:

(in thousands)	
Due within:	
2020	\$ 201,397
2021	60,286
2022	33,300
2023	15,302
2024	739
Thereafter	_
Total	\$ 311,024

The Federal Reserve Bank required the Bank to maintain cash or balances of \$1.3 million at December 31, 2019 compared to \$1.8 million at December 31, 2018 to satisfy reserve requirements. Average compensating balances held at correspondent banks were \$1.5 million and \$787,000 at December 31, 2019 and 2018, 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)	Year End Weighted Rate	Average Weighted Rate	Average Balance Outstanding		Outstanding a		alance at
2019							
Federal funds purchased	2.00 %	2.65 %	\$	329	\$	1,950	\$ _
Short-term repurchase agreements - Bank	0.45	0.45		22,198		27,272	27,272
Total			\$	22,527	\$	29,222	\$ 27,272
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

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 \$50.0 million on an unsecured basis and \$16.0 million on a secured basis at December 31, 2019.

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.

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 Agreement						nents	
		Overnight and		Less than	Greater than			
(in thousands)	C	ontinuous	9	0 days	9	00 days		Total
At December 31, 2019								
U.S. Treasury	\$	754	\$	_	\$	_	\$	754
U.S. government-sponsored enterprises		12,853		_		_		12,853
Asset-backed securities		13,665		_		_		13,665
Total	\$	27,272	\$	_	\$	_	\$	27,272
At December 31, 2018								
U.S. Treasury	\$	1,464	\$	_	\$	_	\$	1,464
U.S. government-sponsored enterprises		12,976		_		_		12,976
Asset-backed securities		2,207						2,207
Total	\$	16,647	\$		\$		\$	16,647

(9) Leases

The Company's leases primarily consist of office space and bank branches with remaining lease terms of generally 1 to 10 years. As of December 31, 2019, operating right-of-use (ROU) assets and liabilities were \$2.4 million and \$2.2 million, respectively. As of December 31, 2019, the weighted-average remaining lease term on these operating leases is approximately 8.5 years and the weighted-average discount rate used to measure the lease liabilities is approximately 4.0%.

Operating leases in which the Company is the lessee are recorded as operating lease right-of-use assets and operating lease liabilities. Currently, the Company does not have any finance leases. The ROU assets are included in premises and equipment, net on the consolidated balance sheets.

Operating lease ROU assets represent the Company's right to use an underlying asset during the lease term and operating lease liabilities represent the Company's obligation to make lease payments arising from the lease. ROU assets and operating lease liabilities are recognized at lease commencement based on the present value of the remaining lease payments using a discount rate that represents the Company's incremental borrowing rate at the lease commencement date.

Operating lease cost, which is comprised of amortization of the ROU asset and the implicit interest accreted on the operating lease liability, is recognized on a straight-line basis over the lease term, and is recorded in net occupancy expense in the consolidated statements of income. The operating lease cost for the year ended December 31, 2019 was \$288,000.

At adoption of ASU 2016-02 on January 1, 2019, lease and non-lease components of new lease agreements are accounted for separately. Lease components include fixed payments including rent, real estate taxes and insurance costs and non-lease components include commonarea maintenance costs. Leases with an initial term of 12 months or less are not recorded on the balance sheet; the Company recognizes lease expense for these leases on a straight-line basis over the lease term. Operating lease expense for these leases was \$163,000 for the year ended December 31, 2019 compared to \$169,000 for the year ended December 31, 2018.

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The table below summarizes the maturity of remaining operating lease liabilities:

	Operating
Lease payments due in:	Lease
(in thousands)	
2020	\$ 334
2021	317
2022	310
2023	312
2024	258
Thereafter	1,087
Total lease payments	2,618
Less imputed interest	(394)
Total lease liabilities, as reported	\$ 2,224

(10) Borrowings

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

			20	19	20	18
				Year End		Year End
		Maturity	Year End	Weighted	Year End	Weighted
(in thousands)	Borrower	Date	Balance	Rate	Balance	Rate
FHLB advances	The Bank	2019	\$ —	— %	\$ 28,231	1.63 %
		2020	49,236	2.61 %	42,236	2.49 %
		2021	29,241	2.52 %	20,241	2.77 %
		2022	4,418	2.14 %	4,418	2.14 %
		2023	3,000	1.90 %	_	— %
		2024	3,000	1.93 %	_	 %
		Thereafter	8,000	2.15 %	_	<u> </u>
Other borrowings		2022	24	4.00 %	27	4.00 %
Total Bank			\$ 96,919		\$ 95,153	_
Subordinated notes	The Company	2034	\$ 25,774	4.60 %	\$ 25,774	5.49 %
		2035	23,712	3.73 %	23,712	4.62 %
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, 2019, the Bank had \$96.9 million in outstanding borrowings with the FHLB. Based upon the collateral pledged to the FHLB at December 31, 2019, the Bank could borrow up to an additional \$72.9 million under the agreement.

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 (3.73% at December 31, 2019). The TPS can be prepaid without penalty at any time after five years from the issuance date.

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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 (4.60% at December 31, 2019). 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, 2019 and 2018 was \$49.5 million, respectively. The Company has recorded the investments in the common securities issued by the Exchange Statutory Trusts aggregating \$1.3 and \$1.4 million at December 31, 2019 and 2018, 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.

(11) Income Taxes

The composition of income tax expense for the years ended December 31, 2019, 2018, and 2017 was as follows:

(in thousands)	2019	19 2		2017
Current:				
Federal	\$ 3,830	\$	1,175	\$ 2,761
State	_		(181)	385
Total current	3,830		994	3,146
Deferred:				
Federal	(7)		674	3,189
State			_	1,567
Total deferred	(7)		674	4,756
Total income tax expense	\$ 3,823	\$	1,668	\$ 7,902

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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, 2019, 2018, and 2017 are as follows:

	2019	2019		8	201	7
(in thousands)	Amount	%	Amount	%	Amount	%
Income before provision for income tax expense	\$ 19,937	9	\$ 12,382	\$	11,316	
Tax at statutory federal income tax rate	\$ 4,187	21.00 % 5	3 2,600	21.00 % \$	3,847	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	(408)	(2.04)	(432)	(3.49)	(394)	(3.48)
State income tax, net of federal tax benefit	_		_	_	323	2.85
Other, net	44	0.22	(14)	(0.11)	21	0.18
Provision for income tax expense	\$ 3,823	19.18 % 5	1,668	13.47 % \$	7,902	69.83 %

Income taxes as a percentage of earnings before income taxes as reported in the consolidated financial statements were 19.2% for the year ended December 31, 2019 compared to 13.5% and 69.8% for the years ended December 31, 2018 and 2017, respectively.

The year-over-year changes in the effective tax rate are primarily attributable to the prior impacts of the Tax Cuts and Jobs Act (Tax Act), the prior impacts of the Company's state tax planning initiatives, and the increased earnings and branch sale gain in 2019. The Company's tax rate is lower than the federal statutory rate primarily as a result of tax-exempt income.

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 in 2018 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 and a \$180,000 benefit attributable to various accounting method changes made on the Company's 2017 tax return.

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The components of deferred tax assets and deferred tax liabilities at December 31, 2019 and 2018 were as follows:

(in thousands)	2019	2018
Deferred tax assets:		
Allowance for loan losses	\$ 2,564	\$ 2,285
Pension	1,747	1,516
Securities	_	915
Other real estate owned	621	630
Deferred loan fees	131	_
Lease Liability	467	_
Intangible assets	103	343
Accrued / deferred compensation	399	327
Other	95	188
Total deferred tax assets	\$ 6,127	\$ 6,204
Deferred tax liabilities:		
Premises and equipment	\$ 625	\$ 483
Mortgage servicing rights	521	616
Deferred loan costs	273	261
Right-of-Use Asset	465	_
Prepaid expenses	328	321
Securities	9	_
Other	10	10
Total deferred tax liabilities	2,231	1,691
Net deferred tax assets	\$ 3,896	\$ 4,513

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, 2019. 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. The Company follows ASC Topic 740, Income Taxes, which addresses the accounting for uncertain tax positions.

The Company follows ASC Topic 740, *Income Taxes*, which addresses the accounting for uncertain tax positions. For each of the years ended December 31, 2019 and 2018, respectively, the Company did not have any uncertain tax provisions, and did not record any related tax liabilities.

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(12) 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.

	Unwo	alized Loss		recognized Net Pension and ostretirement	Accumulated Other omprehensive (Loss)
(in thousands)		ecurities (1)	Г	Costs (2)	Income
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)
Other comprehensive income, before reclassifications		4,304		79	4,383
Amounts reclassified from accumulated other comprehensive loss		40		(1,455)	(1,415)
Other comprehensive (loss) income, before tax		4,344		(1,376)	2,968
Income tax (expense) benefit		(912)		288	(624)
Other comprehensive (loss) income, net of tax		3,432		(1,088)	2,344
Balance, December 31, 2019	\$	(23)	\$	(3,732)	\$ (3,755)

⁽¹⁾ The pre-tax amounts reclassified from accumulated other comprehensive (loss) income are included in (losses) gains on sale of investment securities in the consolidated statements of income.

(13) 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)	2019	2018	2017
Payroll taxes	\$ 1,112	\$ 1,156	\$ 1,167
Medical plans	1,826	2,109	2,026
401(k) match and profit sharing	1,290	956	873
Periodic pension cost	1,430	1,707	1,343
Other	63	67	83
Total employee benefits	\$ 5,721	\$ 5,995	\$ 5,492

The Company's profit-sharing plan includes a matching 401(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 years shown. In addition, employees were able to make additional tax-deferred contributions.

⁽²⁾ The pre-tax amounts reclassified from accumulated other comprehensive (loss) income are included in the computation of net periodic pension cost. See Note 13.

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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 December 31, 2019, the accrued liability was \$640,000 and the expense for this plan of \$320,000 for both the years ended December 31, 2019 and 2018, respectively, was accrued and recognized over the required service period.

Pension

The Company provides a noncontributory defined benefit pension plan for all full-time employees. Beginning January 1, 2018 and for all retrospective periods presented, the Company adopted the guidance under ASU 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost.* Under the new guidance, only the service cost component of the net periodic benefit cost is reported in the same income statement line item as salaries and benefits, and the remaining components are reported as other non-interest expense. 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 of \$1.6 million on April 17, 2019. 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)	2019	2018
Change in projected benefit obligation:		
Balance, January 1	\$ 26,892	\$ 27,871
Service cost	1,430	1,707
Interest cost	1,169	1,037
Actuarial loss (gain)	5,164	(3,122)
Benefits paid	(646)	(601)
Balance, December 31,	\$ 34,009	\$ 26,892
Change in plan assets:		
Fair value, January 1	\$ 19,672	\$ 19,924
Actual return on plan assets	5,164	(1,329)
Employer contribution	1,610	1,800
Expenses paid	(111)	(122)
Benefits paid	(646)	(601)
Fair value, December 31,	\$ 25,689	\$ 19,672
Funded status at end of year	\$ (8,320)	\$ (7,220)
Accumulated benefit obligation	\$ 26,380	\$ 21,244

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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)	2019		2018	2017
Service cost - benefits earned during the year	\$ 1,430	\$	1,707	\$ 1,343
Interest costs on projected benefit obligations (a)	1,169		1,037	1,009
Expected return on plan assets (a)	(1,467)		(1,327)	(1,127)
Expected administrative expenses (a)	122		93	88
Amortization of prior service cost (a)	79		79	79
Amortization of unrecognized net loss (a)	_		140	11
Net periodic pension cost	\$ 1,333	\$	1,729	\$ 1,403

⁽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) income at December 31, 2019 and 2018 are shown below, including amounts recognized in other comprehensive income during the periods. All amounts are shown on a pre-tax basis.

(in thousands)	2019	2018
Prior service costs	\$ (49)	\$ (128)
Net accumulated actuarial net loss	(4,675)	(3,219)
Accumulated other comprehensive loss	(4,724)	(3,347)
Net periodic benefit cost in excess of cumulative employer contributions	(3,596)	(3,873)
Net amount recognized at December 31, balance sheet	\$ (8,320)	\$ (7,220)
Net (loss) gain arising during period	\$ (1,455)	\$ 436
Prior service cost amortization	79	79
Amortization of net actuarial loss	_	140
Total recognized in other comprehensive (loss) income	\$ (1,376)	\$ 655
Total recognized in net periodic pension cost and other comprehensive		
income	\$ 2,709	\$ 1,074

Assumptions utilized to determine benefit obligations as of December 31, 2019, 2018 and 2017 and to determine pension expense for the years then ended are as follows:

	2019	2018	2017
Determination of benefit obligation at year end:			
Discount rate	3.45 %	4.40 %	3.75 %
Annual rate of compensation increase	4.00 %	4.00 %	4.00 %
Determination of pension expense for year ended:			
Discount rate for the service cost	4.40 %	3.75 %	4.40 %
Annual rate of compensation increase	4.00 %	4.00 %	4.00 %
Expected long-term rate of return on plan assets	6.75 %	6.75 %	6.75 %

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The assumed overall expected long-term rate of return on pension plan assets used in calculating 2019 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: 25.8% in 2019, -6.2% in 2018, 17.4% in 2017, 8.2% in 2016, and -0.4% in 2015. 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 \$1.8 million of expense in 2020 compared to \$1.3 million 2019.

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, 2019 and 2018 by asset category was as follows:

		Fair Value Measurements							
(in thousands)	Fa	nir Value	i M l	oted Prices n Active arkets for (dentical Assets Level 1)	Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)		
December 31, 2019						,			
Cash equivalents	\$	1,940	\$	1,940	\$	— \$	_		
U.S government agency obligations		300		_		300			
Corporate bonds		307		_		307	_		
Equity securities		1,436		1,436		_			
Mutual funds		21,706		21,706		_			
Total	\$	25,689	\$	25,082	\$	607 \$	_		
December 31, 2018									
Cash equivalents	\$	707	\$	707	\$	— \$			
U.S government agency obligations		1,778		_		1,778	_		
Corporate bonds		295		_		295			
Equity securities		1,236		1,236					
Mutual funds		15,656		15,656		_	_		
Total	\$	19,672	\$	17,599	\$	2,073 \$			

The following future benefit payments are expected to be paid:

Year	Pension benefits
(in thousands)	
2020	\$ 819
2021	888
2022	1,022
2023	1,065
2024	1,066
2025 to 2029	6,985

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(14) 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:

	Νι	ımber of sl	nares	Weighted average exercise price		Weighted average Contractual Term				Aggregate Intrinsic Value				
	I	December 3	31,	D	ecember 3	31,		(in years))		(\$000)			
	2019	2018	2017	2019	2018	2017	2019	2018	2017	20	19	20	18	2017
Outstanding, beginning of year	_	21,745	50,021	\$ —	\$13.65	\$17.88								
Granted	_			_	_	_								
Exercised	_	(21,745)	_	_	13.65	_								
Forfeited or expired	_	_	(28,276)	_	_	20.38								
Outstanding, end of year	_	_	21,745	\$ —	\$ <u>_</u>	\$13.65	0.00	0.00	0.73	\$	0	\$	0	\$125,052
Exercisable, end of year	_	_	21,745	\$ —	\$ —	\$13.65	0.00	0.00	0.73	\$	0	\$	0	\$125,052

Options have been adjusted to reflect a 4% stock dividend paid on July 1, 2019.

Total stock-based compensation expense for the years ended December 31, 2019, 2018, and 2017 was zero, zero, and \$3,000, 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 21,745 options to purchase common shares were exercised at a weighted average price of \$13.65 per share.

(15) Earnings per Share

Stock Dividend On July 1, 2019, the Company paid a special stock dividend of four percent to common shareholders of record at the close of business on June 15, 2019. 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.

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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)		2019		2018	2017
Basic earnings per share:					
Net income available to shareholders	\$	16,114	\$	10,714	\$ 3,414
Average shares outstanding	(6,276,236	(6,268,050	6,300,237
Basic earnings per share	\$	2.57	\$	1.71	\$ 0.54
Diluted earnings per share:					
Net income available to shareholders	\$	16,114	\$	10,714	\$ 3,414
Average shares outstanding	(6,276,236	(6,268,050	6,300,237
Effect of dilutive stock options		_		5,244	5,717
Average shares outstanding including dilutive stock options	(6,276,236	(5,273,294	6,305,954
Diluted earnings per share	\$	2.57	\$	1.71	\$ 0.54

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 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. There were no shares for the year ended December 31, 2019 that were omitted from the computation of diluted earnings per share as a result of being considered anti-dilutive.

Repurchase Program On September 18, 2019, the Company's Board of Directors authorized the purchase of up to \$5.0 million market value of the Company's common stock. Management was given discretion to determine the number and pricing of the shares to be purchased, as well as, the timing of any such purchases. During the year ended December 31, 2019, no shares of the Company's common stock were purchased by or on behalf of the Company or affiliated purchasers.

(16) 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 began being 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 increased 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. At December 31,

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2019, the capital conservation buffer of 2.5%, effectively raised 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, 2019 and 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 periods indicated:

			Minimum		Required	
			Required -		Considere	
	Actua	l	Fully Pha	sed-In *	Capital	lized
(in thousands)	Amount	Ratio	Amount	Ratio	Amount	Ratio
December 31, 2019						
Total Capital (to risk-weighted assets):						
Company	\$ 179,430	14.89 %\$	126,511	10.50 %\$	_	N.A %
Bank	175,459	14.60	126,165	10.50	120,158	10.00
Tier 1 Capital (to risk-weighted assets):						
Company	\$ 157,139	13.04 %\$	102,414	8.50 %\$	_	N.A %
Bank	162,822	13.55	102,134	8.50	96,126	8.00
Common Equity Tier 1 Capital (to risk-weighted assets):						
Company	\$ 118,793	9.86 %\$	84,341	7.00 %\$		N.A %
Bank	162,822	13.55	84,110	7.00	78,102	6.50
Tier 1 leverage ratio (to adjusted average assets):						
Company	\$ 157,139	10.73 %\$	58,562	4.00 %\$	_	N.A %
Bank	162,822	11.18	58,280	4.00	72,850	5.00

^{*} At December 31, 2019 the Basel III capital conservation buffer requirement of 2.5% had been fully phased-in.

	Actua	Required Under R		Minimum (Required - I Fully Pha	Basel III	Required Considered Capital	d Well-	
(in thousands)	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
December 31, 2018								
Total Capital (to risk-weighted assets):								
Company	\$ 165,325	13.28 %\$	122,916	9.875 %	\$ 130,696	10.50 %\$	_	N.A. %
Bank	163,814	13.19	122,607	9.875	130,367	10.50	124,159	10.00
Tier 1 Capital (to risk-weighted assets):								
Company	\$ 139,532	11.21 %\$	98,022	7.875 %	\$ 105,802	8.50 %\$	_	N.A. %
Bank	152,002	12.24	97,775	7.875	105,535	8.50	99,327	8.00
Common Equity Tier 1 Capital (to risk-weighted								
assets)								
Company	\$ 105,513	8.48 %\$	79,351	6.375 %	\$ 87,131	7.00 %\$	_	N.A. %
Bank	152,002	12.24	79,151	6.375	86,911	7.00	80,703	6.50
Tier 1 leverage ratio (to adjusted average assets):								
Company	\$ 139,532	9.55 %\$	58,467	4.000 %	\$ 58,467	4.00 %\$	_	N.A. %
Bank	152,002	10.43	58,272	4.000	58,272	4.00	72,839	5.00

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(17) 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. This hierarchy uses three levels of inputs to measure the fair value of assets and liabilities as follows. During the year ended December 31, 2019 there were no transfers into or out of Levels 1-3.

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. A quoted price in an active market provides the most reliable evidence of fair value and is used to measure fair value whenever available. A contractually binding sales price also provides reliable evidence of fair value.

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.

In accordance with fair value accounting guidance, the Company measures, records, and reports various types of assets and liabilities at fair value on either a recurring or non-recurring basis in the Consolidated Financial Statements. 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.

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 that are not actively traded are classified in level 2.

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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. The Company uses level 1 inputs to value equity securities that are traded in active markets.

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, 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.

			Fair Value Measurements				
(in thousands)	Fai	r Value	Quoted Prices in Active Markets for Identical Assets ue (Level 1)		Other Observable Inputs (Level 2)	Uno	gnificant observable Inputs Level 3)
December 31, 2019			Ì	,			,
Assets:							
U.S. Treasury	\$	995	\$	995	_	\$	_
U.S. government and federal agency obligations		8,047		_	8,047		_
U.S. government-sponsored enterprises	2	22,283		_	22,283		_
Obligations of states and political subdivisions		33,789		_	33,789		_
Mortgage-backed securities	10	05,616		_	105,616		_
Other debt securities		3,053		_	3,053		_
Bank-issued trust preferred securities		1,310		_	1,310		_
Equity securities		13		13	_		_
Mortgage servicing rights		2,482		_	_		2,482
Total	\$ 1	77,588	\$	1,008	\$ 174,098	\$	2,482
		=		-			
December 31, 2018							
Assets:							
U.S. Treasury	\$	1,952	\$	1,952	_	\$	_
U.S. government and federal agency obligations	,	9,966	•	_	9,966		_
U.S. government-sponsored enterprises	4	43,335		_	43,335		_
Obligations of states and political subdivisions		40,386		_	40,386		_
Mortgage-backed securities	1	18,192		_	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	\$ 22	21,148	\$	1,964	\$ 216,253	\$	2,931

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The changes in Level 3 assets and liabilities measured at fair value on a recurring basis are summarized as follows:

Fair Value Measurements Using Significant Unobservable Inputs (Level 3) (in thousands) **Mortgage Servicing Rights** Balance at December 31, 2017 \$ 2,713 Total (losses) or gains (realized/unrealized): Included in earnings (27)Included in other comprehensive income Purchases Sales 245 Issues Settlements Balance at December 31, 2018 \$ 2.931 Total (losses) or gains (realized/unrealized): Included in earnings (739)Included in other comprehensive income Purchases Sales Issues 290 Settlements Balance at December 31, 2019 \$ 2,482

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, 2019, the Company identified \$3.0 million in impaired loans that had specific allowances for losses aggregating \$316,000. Related to these loans, there were \$207,000 in charge-offs recorded during the year ended December 31, 2019. 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.

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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.

		Fair Value Measurements Using						
(in thousands)	Total Fair Value	Assets Inputs		Significant Unobservable Inputs (Level 3)	Total Gains (Losses)*			
December 31, 2019		(======================================	(======================================	(==:,==)	(=====)			
Assets:								
Collateral dependent impaired loans:								
Commercial, financial, & agricultural	\$ 379	\$ —	\$ —	\$ 379	\$ (132)			
Real estate construction - commercial	137	_	_	137				
Real estate mortgage - residential	1,028			1,028	(45)			
Real estate mortgage - commercial	1,119	_	_	1,119	(18)			
Installment and other consumer	12			12	(12)			
Total	\$ 2,675	\$ —	\$ —	\$ 2,675	\$ (207)			
Other real estate and repossessed assets	\$ 12,781	<u>\$</u>	<u>\$</u>	\$ 12,781	\$ (157)			
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)			

^{*} 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.

(18) 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:

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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 that are not actively traded are classified in level 2.

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. The Company uses level 1 inputs to value equity securities that are traded in active markets.

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 which is equal to fair value.

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.

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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.

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.

Operating Lease Liabilities

The fair value of operating lease liabilities are recognized at lease commencement based on the present value of the remaining lease payments using a discount rate that represents the Company's incremental borrowing rate at the lease commencement date.

Notes to the Consolidated Financial Statements

December 31, 2019, 2018, and 2017

A summary of the carrying amounts and fair values of the Company's financial instruments at December 31, 2019 and 2018 is as follows:

					December 31, 2019 Fair Value Measurements					
(in thousands)	December 31, 2019 Carrying Fair amount value			N	uoted Prices in Active Iarkets for Identical Assets (Level 1)	Ob	Other servable (inputs Level 2)	Ur	Net Significant nobservable Inputs (Level 3)	
Assets:		***************************************				(====)				(=====)
Cash and due from banks	\$	22,576	\$	22,576	\$	22,576	\$	_	\$	_
Federal funds sold and overnight		,		,		,				
interest-bearing deposits		55,545		55,545		55,545		_		_
Certificates of deposit in other banks		10,862		10,862		10,862		_		_
Available for sale securities		175,093		175,093		995	1	74,098		_
Other investment securities		5,808		5,808		13		5,795		_
Loans, net	1	1,156,748		1,148,339		_		_	1	,148,339
Mortgage servicing rights		2,482		2,482		_		_		2,482
Cash surrender value - life insurance		2,398		2,398		_		2,398		_
Accrued interest receivable		6,481		6,481		6,481		_		_
Total	\$ 1	1,437,993	\$	1,429,584	\$	96,472	\$ 1	82,291	\$ 1	,150,821
Liabilities:										
Deposits:										
Non-interest bearing demand	\$	261,166	\$	261,166	\$	261,166	\$		\$	_
Savings, interest checking and money										
market		614,331		614,331		614,331		_		_
Time deposits		311,024		311,489		_		_		311,489
Federal funds purchased and securities										
sold under agreements to repurchase		27,272		27,272		27,272		_		
Federal Home Loan Bank advances										
and other borrowings		96,919		97,833		_		97,833		_
Subordinated notes		49,486		43,640		_		43,640		_
Operating lease liabilities		2,224		2,224				2,224		
Accrued interest payable		1,136		1,136		1,136		_		_
Total	\$ 1	1,363,558	\$	1,359,091	\$	903,905	\$ 1	43,697	\$	311,489

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December 31 2018

			December 31, 2018 Fair Value Measurements					
	Decembe	er 31, 2018	Quoted Prices in Active Markets for Identical	Other Observable	Net Significant Unobservable			
	Carrying	Fair	Assets	Inputs	Inputs			
(in thousands)	amount	value	(Level 1)	(Level 2)	(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	12	5,663	_			
Loans, net	1,134,975	1,115,003	_	_	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	\$ 1,404,848	\$ 62,456	\$ 224,458	\$ 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 advances and								
other borrowings	95,153	94,326	_	94,326	_			
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			

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.

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December 31, 2019, 2018, and 2017

(19) 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, 2019, 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, 2019 and 2018 is as follows:

(in thousands)	2019	2018
Commitments to extend credit	\$ 240,758	\$ 267,314
Commitments to originate residential first and second mortgage loans	3,980	1,759
Standby letters of credit	97,348	82,895
Total	342,086	351,968

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, 2019.

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.

(20) 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.

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,

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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:

- Service charges on deposit accounts represents fees generated from a variety of deposit products and services provided to customers under a day-to-day contract. These fees are recognized on a daily or monthly basis.
- Bank card income and fees represents fees, exchange, and other service charge revenue earned from merchant, debit and credit cards that are recognized when the services are rendered or upon completion. These fees are recognized on a daily or monthly basis.
- Gain on sale of other real estate represents income recognized at the time of control of a property is transferred to the buyer.

(21) 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

Assets Cash and due from bank subsidiaries Investment in bank-issued trust preferred securities Investment in subsidiaries Investment in subsidiaries Deferred tax asset Other assets Injugation Injug	December 31,	
Cash and due from bank subsidiaries \$ 2,576 \$ Investment in bank-issued trust preferred securities 1,310 Investment in subsidiaries 167,196 152 Deferred tax asset 1,928 Other assets 1,329 Total assets \$ 174,339 \$ 157 Liabilities and Stockholders' Equity Subordinated notes \$ 49,486 \$ 49	2019 20	(in thousands)
Investment in bank-issued trust preferred securities Investment in subsidiaries Investment in bank-issued trust preferred securities Investment in subsidiaries I		Assets
Investment in subsidiaries 167,196 152 Deferred tax asset 1,928 Other assets 1,329 Total assets \$174,339 \$157 Liabilities and Stockholders' Equity Subordinated notes \$49,486 \$49	\$ 2,576 \$ 1	Cash and due from bank subsidiaries
Deferred tax asset Other assets 1,329 Total assets \$ 174,339 \$ 157 Liabilities and Stockholders' Equity Subordinated notes \$ 49,486 \$ 49	ed securities 1,310 1	Investment in bank-issued trust preferred securities
Other assets1,329Total assets\$ 174,339\$ 157Liabilities and Stockholders' Equity\$ 49,486\$ 49,486\$ 49,486	167,196 152	Investment in subsidiaries
Total assets \$ 174,339 \$ 157 Liabilities and Stockholders' Equity Subordinated notes \$ 49,486 \$ 49	1,928 1	Deferred tax asset
Liabilities and Stockholders' Equity Subordinated notes \$ 49,486 \$ 49	1,329	Other assets
Subordinated notes \$ 49,486 \$ 49	\$ 174,339 \$ 157	Total assets
Subordinated notes \$ 49,486 \$ 49		
* **,*** * **		Liabilities and Stockholders' Equity
Other liabilities 9,815	\$ 49,486 \$ 49	Subordinated notes
	9,815 8	Other liabilities
Stockholders' equity 115,038 99	115,038 99	Stockholders' equity
Total liabilities and stockholders' equity \$ 174,339 \$ 15'	uity \$ 174,339 \$ 157	Total liabilities and stockholders' equity

Notes to the Consolidated Financial Statements

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Condensed Statements of Income

	For the Years Ended December			
	2019	2018	2017	
Income				
Interest and dividends received from subsidiaries	\$ 8,071	\$ 5,067	\$ 2,653	
Other	_	428	_	
Total income	8,071	5,495	2,653	
Expenses				
Interest on subordinated notes	2,376	2,229	1,751	
Other	2,461	3,461	2,358	
Total expenses	4,837	5,690	4,109	
Income before income tax benefit and equity in undistributed income of				
subsidiaries	3,234	(195)	(1,456)	
Income tax benefit	1,001	1,397	191	
Equity in undistributed income of subsidiaries	11,879	9,512	4,679	
Net income	\$ 16,114	\$ 10,714	\$ 3,414	

Condensed Statements of Cash Flows

	For the Years Ended December					oer 31,
(in thousands)	2019		2018			2017
Cash flows from operating activities:						
Net income	\$	16,114	\$	10,714	\$	3,414
Adjustments to reconcile net income to net cash provided by operating						
activities:						
Equity in undistributed income of subsidiaries		(11,879)		(9,512)		(4,679)
Stock based compensation expense		_		_		3
(Increase) decrease in deferred tax asset		(319)		370		881
Other, net		10		(116)		453
Net cash provided by operating activities	\$	3,926	\$	1,456	\$	72
Cash flows from investing activities:						
Decrease (increase) in investment in subsidiaries, net	\$	_	\$	500	\$	(250)
Net cash provided by (used in) investing activities	\$	_	\$	500	\$	(250)
Cash flows from financing activities:						
Cash dividends paid - common stock	\$	(2,684)	\$	(1,993)	\$	(1,474)
Issuance of stock under equity compensation plan		_		135		
Purchase of treasury stock		_		(179)		(878)
Net cash used in financing activities	\$	(2,684)	\$	(2,037)	\$	(2,352)
Net increase (decrease) in cash and due from banks		1,242		(81)		(2,530)
Cash and due from banks at beginning of year		1,334		1,415		3,945
Cash and due from banks at end of year	\$	2,576	\$	1,334	\$	1,415

Notes to the Consolidated Financial Statements

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(22) Quarterly Financial Information (Unaudited)

(In thousands except per share data)		First uarter		econd uarter	Third juarter	Fourth quarter		Year to Date
Year Ended December 31, 2019								
Interest income	\$ 1	15,915	\$ 1	6,184	\$ 15,925	\$ 15,946	\$ 6	53,970
Interest expense		4,286		4,027	3,564	3,355]	15,232
Net interest income	1	11,629	1	2,157	12,361	12,591	4	18,738
Provision for loan losses		150		250	450	300		1,150
Noninterest income		2,091		2,121	2,424	2,301		8,937
Investment gains (losses), net		1		_	(40)	(1)		(40)
Gain on branch sale, net		2,074		_	109			2,183
Noninterest expense		9,888		9,671	9,590	9,582	3	38,731
Income tax expense		1,091		837	954	941		3,823
Net income	\$	4,666	\$	3,520	\$ 3,860	\$ 4,068	\$ 1	16,114
Net income per share:								
Basic earnings per share	\$	0.74	\$	0.56	\$ 0.62	\$ 0.65	\$	2.57
Diluted earnings per share		0.74		0.56	 0.62	 0.65		2.57
Year Ended December 31, 2018								
Interest income	\$ 1	13,544	\$ 1	4,288	\$ 14,751	\$ 15,196	\$ 5	57,779
Interest expense		2,790		3,261	3,443	3,692	1	13,186
Net interest income]	10,754	1	1,027	11,308	11,504		14,593
Provision for loan losses		300		450	250	475		1,475
Noninterest income		2,203		2,390	2,364	2,384		9,341
Investment gains (losses), net		98		108	50	(1)		255
Noninterest expense	1	10,254		9,943	9,928	10,207	4	10,332
Income tax expense		411		225	446	586		1,668
Net income	\$	2,090	\$	2,907	\$ 3,098	\$ 2,619	\$ 1	10,714
Net income per share:								
Basic earnings per share	\$	0.34	\$	0.46	\$ 0.49	\$ 0.42	\$	1.71
Diluted earnings per share		0.34		0.46	0.49	0.42		1.71

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 2019 and 2018 in which the stock was traded.

	High		Low
2019			
First Quarter	\$ 23.08	\$	19.66
Second Quarter	\$ 27.52	\$	22.12
Third Quarter	\$ 27.75	\$	20.53
Fourth Quarter	\$ 26.00	\$	23.06
2018			
First Quarter	\$ 19.60	\$	18.49
Second Quarter	\$ 21.37	\$	18.77
Third Quarter	\$ 23.85	\$	20.82
Fourth Quarter	\$ 23.92	\$	19.28

Shares Outstanding

As of December 31, 2019, the Company had issued 6,519,874 shares of common stock, of which 6,276,236 shares were outstanding. The outstanding shares were held of record by approximately 1,795 shareholders.

Dividends

The following table sets forth information on dividends paid by the Company in 2019 and 2018.

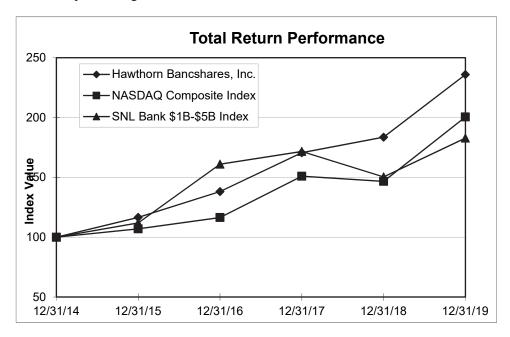
	Dividends Paid	
Month Paid	Pei	r Share
January, 2019	\$	0.10
April, 2019		0.10
July, 2019		0.12
October, 2019		0.12
Total for 2019	\$	0.44
January, 2018	\$	0.07
April, 2018		0.07
July, 2018		0.10
October, 2018		0.10
Total for 2018	\$	0.34

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, 2014, through December 31, 2019. 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, 2014. The performance graph assumes that the value of an investment in the Company's common stock and each index was \$100

at December 31, 2014 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:

	Year Ending						
	12/31/14	12/31/15	12/31/16	12/31/17	12/31/18	12/31/19	
Hawthorn Bancshares, Inc.	\$ 100.00	\$ 116.58	\$ 138.15	\$ 170.65	\$ 183.62	\$ 235.94	
Nasdaq Composite (U.S. Companies)	\$ 100.00	\$ 106.96	\$ 116.45	\$ 150.96	\$ 146.67	\$ 200.49	
Index of financial institutions (\$1 billion to \$5 billion)	\$ 100 00	\$ 111 94	\$ 161 04	\$ 171.69	\$ 150.42	\$ 182.85	

DIRECTORS AND EXECUTIVE OFFICERS OF THE COMPANY

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, Buick, GMC, Cadillac, Toyota, Inc., Riley Brothers, LLC, and Riley Brothers II, LLC, Jefferson City, Missouri
Frank E. Burkhead	Director-Class II	Director	Owner, Burkhead Wealth 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	Co-owner, Meadows Contracting LLC, 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, 2019, as filed with the Securities and Exchange Commission, excluding exhibits, will be furnished without charge to shareholders entitled to vote at the 2019 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.