

BETTER LIVES,
BETTER COMMUNITIES.



2018 ANNUAL REPORT



WILLIAM HAYES

CHAIRMAN OF THE BOARD, PRESIDENT AND CHIEF EXECUTIVE OFFICER



CHAIRMAN'S LETTER TO THE SHAREHOLDERS

At Kish, it is not about what we do, it is about why we do it. That "why" is the focus of everything we do, and in 2018, that focus produced results that speak louder than words. So, this letter will begin with the measures that capture the headlines of Kish Bancorp's financial performance for 2018 and a reiteration of the cover of the prior year's annual report: Clear Vision, Compelling Results.

Net income for the year rose by 45.63% over the prior year, or \$1.89 million, to \$6.03 million from \$4.14 million in 2017. When the accounting adjustments associated with the Tax Cuts and Jobs Act are eliminated from 2017 reported earnings, net income increased by 32.30%, or \$1.47 million, from \$4.56 million. Earnings per share growth, adjusted for October's two-for-one stock split, reflected robust earnings expansion as well, increasing 41.90% over the prior year, to a fully diluted \$2.37 per share from \$1.67 the prior year. By every measure and from every perspective, 2018 was truly a record year. Now let's discuss the performances that built these results and the "why" that drives this team to excel across the full spectrum of what we do as a company.

The outstanding results achieved in 2018 can be tracked through the excellent foundation built in recent years as well as the performance metrics of every Kish business unit and support function. This letter will try to do justice to the diversity of team efforts that produced so many stellar outcomes, but the discussion must begin and end with the driver of 2018 results: the sustained growth of the core banking unit.

Following a strong 2017, Kish Bank began 2018 with a full head of steam. As the year progressed, continued loan growth, supported by a strengthening economy and turmoil among Kish's banking competitors, enabled the Bank to sustain its efforts to expand the customer base, especially in the growth market of Centre County. Perhaps because business lending and mortgage lending are most influenced by a relationship-focused approach, these areas of our business remained central to our efforts to drive growth and attract new customers and contributed

the bulk of the more than \$62 million expansion in the loan portfolio. The commercial lending team turned in another banner year of growth and business relationship acquisition, while residential mortgage lending also achieved another record year by originating more than \$66 million in mortgage loans. The Bank's capacity to remain competitive during the year was strengthened by the successful implementation of interest rate swap transactions that enabled us to offer long-term fixed rates while maintaining margins and balance sheet flexibility.

Sustained loan and asset growth quickly translated into the need to identify and attract new sources of funding. The corresponding focus on growing core deposits was reflected in several new checking promotions, each of which was accompanied by substantial retail deposit growth. Overall, deposits grew by \$28.7 million by year end, although deposit growth was a carefully managed area given the difficult challenges presented by Fed actions and a flattening yield curve. Deposit relationships were also the focus of facilities enhancement and expansion projects, specifically in Bellefonte and Allensville. Both of these branch facilities now reflect the evolution of a streamlined Expect More branch of the future.

No discussion of 2018 operating results would be complete without acknowledging the continuing growth of the Bank's affiliates. The addition of Benefit Management Group, now called Kish Benefits Consulting (KBC), was a major step forward that required broad organizational support and collaboration, but KBC responded by integrating seamlessly and contributing to profitability in its first year as part of the organization. Benefits management consulting represents a significant addition to the offering of valued solutions to our business clients. KBC's performance, combined with double-digit growth in profitability from the wealth management unit, Kish Financial Solutions, and Kish Insurance, as well as sustained positive results from Kish Travel, added materially to our financial results in 2018.

A major advancement for Kish shareholders occurred in 2018's fourth quarter when Kish Bancorp (KISB) shares

CONTENTS

- 1 Chairman's Letter to the Shareholders
- 4 Financial Highlights
- 5 Independent Auditor's Report
- 6 Financial Statements
- 11 Notes to Consolidated Financial Statements
- 56 Board of Directors and Officers

KISH CLIENTS ON THE COVER (LEFT TO RIGHT): A. Christian Baum, Founder of Co.Space and Giv Local; Doreen Perks, Founder of Bob Perks Cancer Assistance Fund; Sherren and Pastor Harold McKenzie, Unity Church of Jesus Christ; Angie Thompson, Co-Owner of Thompson's Candle Co.; and Luke Lake, General Manager of Lake Auto.



were upgraded to the OTCQX exchange from the less liquid pink sheets and saw a corresponding improvement in price and trading execution. That up-listing was preceded by the announcement of a two-for-one stock split and a split-adjusted dividend increase to \$0.25 per share from \$0.23. As Kish Bancorp continues on its growth trajectory toward \$1 billion in assets, the team is preparing for a major elevation in financial reporting and regulatory reporting requirements.

As we look to the future, let me close by noting that despite the strong performance in 2018, I am also awed by the scope and complexity of the plans for the next several years—plans that will fully position Kish to compete and thrive in a rapidly evolving digital environment. It will be an environment where client preferences for access to our services will change dramatically, yet expectations for highly personalized attention will be sustained and even elevated. That is why we are embarking upon two of the most significant initiatives in our long history of innovation. The planning and construction of the Kish Innovation Center will begin to take shape in 2019. This facility, planned for completion in 2020, will enhance the digital delivery of banking services in an environment that is much lower cost and less dependent on physical bricks and mortar. That facility will become reality on the heels of our core system modernization initiative that will be accomplished over the next fourteen months. Both of these major initiatives will be designed to enhance competitiveness and efficiency as part of a larger focus on our Twin Rails strategy, which is the merger of our traditional relationship approach with new emerging digital delivery channels, and the advancement of the Bank's IT infrastructure. We understand that it will be the effective deployment of our shareholders' capital that will be critical to Kish's drive to succeed and thrive in that environment.

Finally, as I mentioned in the opening paragraph, a word about the "why" of this extraordinary organization. 2018 was so incredible because it witnessed great performances by so many teams at Kish, working independently and as one, and it reaffirmed a simple truth that we have always known. It takes great people to build great companies, and we are building a great company that made tremendous strides during the year because of a singular focus on achieving sustained success through an unwavering focus on performance for our customers. As a team, we believe in our hearts that we can make the lives of our team members, our clients, and our communities better by our efforts. And, whether you are a customer, team member, shareholder, or simply a member of the communities served by Kish, we trust you have experienced and appreciate that belief and commitment.

Thank you for your interest and support. Kish Bancorp will continue to benefit from your engagement and recommendations to others.

Sincerely,

William P. Hayes
Chairman of the Board,
President and Chief Executive Officer

PICTURED OPPOSITE PAGE (CLOCKWISE FROM TOP), KISH EMPLOYEES: Lucas Craig, AVP, Financial Advisor; Crystal Yoder, Personal Banker; Terry Horner, VP, Business Development Officer; Jackie Confer, AVP, Business Development Officer; and Alta Corman-Wolf, VP, Residential Lender.



WHY?

We believe that we can make the lives of those around us, our employees, our clients, and our communities BETTER!

FOR THE YEAR	2018	2017	2016	2015	2014
Net Income	\$ 6,029,683	\$ 4,139,770	\$ 4,616,894	\$ 4,494,241	\$ 4,358,608
Net Income Before Taxes	6,670,247	5,141,399	5,254,277	5,125,151	5,130,129
Total Dividends Declared	2,396,453	2,301,564	2,130,197	2,112,600	2,005,848

AT YEAR END (in \$000s)

Total Assets	\$ 850,508	\$ 811,192	\$ 725,071	\$ 696,895	\$ 659,600
Total Loans (Net)	630,440	569,010	488,588	445,425	414,061
Total Deposits	682,350	653,687	561,928	542,629	508,616
Stockholders' Equity	59,728	56,339	53,593	51,281	48,853
Loan Loss Reserve	6,642	5,698	6,011	5,752	6,009
Net Loan Losses (Recoveries)	10	913	271	492	219

RATIO ANALYSIS

Return on Average Assets*	0.72%	0.54%	0.65%	0.66%	0.67%
Return on Average Equity*	10.71%	7.45%	8.54%	8.89%	9.54%
Dividend Declared/Net Income	39.74%	55.60%	46.14%	47.01%	46.02%
Loans/Deposits	92.39%	87.05%	86.95%	82.09%	81.41%
Primary Capital/Total Assets	7.80%	7.65%	8.22%	8.18%	8.32%
Total Capital/Risk Weighted Assets	11.95%	11.65%	13.10%	12.62%	13.07%
Loan Loss Reserve/Loans	1.04%	0.99%	1.22%	1.27%	1.43%
Net Loan Losses to Total Loans (Net)	0.00%	0.17%	0.06%	0.12%	0.05%

PER SHARE DATA**

Basic Earnings	\$ 2.41	\$ 1.69	\$ 1.90	\$ 1.87	\$ 1.82
Fully Diluted Earnings	2.37	1.67	1.89	1.84	1.80
Dividends Paid	0.94	0.92	0.86	0.86	0.82
Equity (Book Value)	23.41	22.50	21.63	20.89	19.98
Equity Plus Loan Loss Reserve	26.01	24.77	24.06	23.23	22.44
Average Shares Outstanding (#)	2,499,673	2,459,168	2,430,134	2,407,260	2,398,414

Net Income (in millions)



Earnings & Dividends (per share)**



Stock Valuation (per share)**



*Due to fluctuations in the mark to market valuation for investment securities, these are not included in the totals for average assets and average equity.

**For comparability, per share data for the years 2014 through 2017 have been adjusted to reflect the two-for-one stock split in 2018.

Board of Directors and Stockholders
Kish Bancorp, Inc.

REPORT ON THE FINANCIAL STATEMENTS

We have audited the accompanying consolidated financial statements of Kish Bancorp, Inc. and subsidiaries, which comprise the consolidated balance sheets as of December 31, 2018 and 2017; the related consolidated statements of income, comprehensive income, changes in stockholders' equity, and cash flows for the years then ended; and the related notes to the consolidated financial statements.

MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of these consolidated financial statements, in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

AUDITOR'S RESPONSIBILITY

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. 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.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

OPINION

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Kish Bancorp, Inc. and subsidiaries as of December 31, 2018 and 2017, and the results of their operations and their cash flows for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

S.R. Snodgrass, P.C.

Cranberry Township, Pennsylvania

March 4, 2019

CONSOLIDATED BALANCE SHEET

	December 31,	
	2018	2017
ASSETS		
Cash and due from banks	\$ 10,146,566	\$ 7,964,222
Interest-bearing deposits with other institutions	22,622,212	35,923,762
Cash and cash equivalents	32,768,778	43,887,984
Certificates of deposit in other financial institutions	3,119,532	3,492,344
Investment Securities available for sale, at fair value	124,731,597	135,995,777
Equity Securities	3,450,017	4,051,862
Investment Securities held to maturity, fair value of \$7,095,937 and \$6,162,790	7,000,000	6,000,000
Loans held for sale	156,565	1,279,431
Loans	637,082,546	574,708,035
Less allowance for loan losses	6,642,410	5,697,810
Net loans	630,440,136	569,010,225
Premises and equipment, net	14,182,308	12,996,668
Goodwill	2,143,699	2,143,699
Regulatory stock	6,110,700	6,149,000
Bank-owned life insurance	15,422,560	15,437,997
Accrued interest and other assets	10,983,033	10,746,897
TOTAL ASSETS	\$ 850,508,925	\$ 811,191,883
LIABILITIES		
Deposits:		
Noninterest-bearing	\$ 93,954,532	\$ 85,526,265
Interest-bearing demand	12,234,873	11,986,932
Savings	64,318,889	63,773,855
Money market	253,787,230	233,973,580
Time	258,054,517	258,426,421
Total deposits	682,350,041	653,687,053
Short-term borrowings	22,484,169	8,930,710
Other borrowings	78,024,955	85,931,850
Accrued interest and other liabilities	7,921,055	6,303,539
TOTAL LIABILITIES	790,780,220	754,853,152
STOCKHOLDERS' EQUITY		
Preferred stock, \$.50 par value; 500,000 shares authorized, no shares issued and outstanding	-	-
Common stock, \$.50 par value; 8,000,000 shares authorized, 2,697,500 and 1,348,750 shares issued, at 2018 and 2017, respectively	1,348,750	674,375
Additional paid-in capital	2,460,838	2,066,936
Retained earnings	59,882,848	56,207,032
Accumulated other comprehensive (loss) income	(1,301,777)	509,366
Treasury stock, at cost (130,609 and 171,584 shares in 2018 and 2017, respectively)	(2,661,954)	(3,118,978)
TOTAL STOCKHOLDERS' EQUITY	59,728,705	56,338,731
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 850,508,925	\$ 811,191,883

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENT OF INCOME

	Year Ended December 31,	
	2018	2017
INTEREST AND DIVIDEND INCOME		
Interest and fees on loans:		
Taxable	\$ 27,894,432	\$ 22,855,386
Exempt from federal income tax	1,193,287	1,336,603
Interest and dividends on investment securities:		
Taxable	2,582,358	2,655,876
Exempt from federal income tax	1,065,457	1,332,272
Interest-bearing deposits with other institutions	592,171	345,042
Other dividend income	636,019	602,245
Total interest and dividend income	33,963,724	29,127,424
INTEREST EXPENSE		
Deposits	5,764,414	3,864,807
Short-term borrowings	35,536	22,677
Other borrowings	2,406,694	2,138,665
Total interest expense	8,206,644	6,026,149
NET INTEREST INCOME	25,757,080	23,101,275
Provision for loan losses	955,000	600,000
NET INTEREST INCOME AFTER PROVISION FOR LOAN LOSSES	24,802,080	22,501,275
NONINTEREST INCOME		
Service fees on deposit accounts	1,691,041	1,614,103
Investment securities gains, net	3,471	101,117
Equity securities losses, net	(181,665)	-
Gain on sale of loans	858,426	866,798
Earnings on bank-owned life insurance	421,086	429,766
Insurance commissions	1,225,075	1,128,094
Travel agency commissions	311,250	377,295
Wealth management	1,516,089	1,399,589
Benefit management	473,720	-
Other	1,121,147	607,702
Total noninterest income	7,439,640	6,423,346
NONINTEREST EXPENSE		
Salaries and employee benefits	15,556,450	14,633,030
Occupancy and equipment	2,982,508	2,878,318
Data processing	2,293,683	2,089,133
Professional fees	243,482	315,071
Advertising	265,547	252,065
Federal deposit insurance	390,700	237,000
Pennsylvania shares tax	615,828	598,948
Other	3,223,275	2,880,774
Total noninterest expense	25,571,473	23,884,340
Income before income taxes	6,670,247	5,040,282
Income taxes (includes revaluation of net deferred tax asset due to tax reform in the amount of \$416,852 for the year ended 2017)	640,564	1,001,629
NET INCOME	\$ 6,029,683	\$ 4,038,653
EARNINGS PER SHARE		
Basic	\$ 2.41	\$ 1.69
Diluted	\$ 2.37	\$ 1.67

See accompanying notes to the consolidated financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

	Year Ended December 31,	
	2018	2017
Net income	\$ 6,029,683	\$ 4,139,770
Other comprehensive income (loss)		
Securities available for sale:		
Change in unrealized holding (losses) gains on available-for-sale securities	(1,323,406)	485,646
Tax effect	277,918	(165,120)
Change in comprehensive income related to cash flow hedges	(58,167)	93,989
Tax effect	12,215	(31,956)
Reclassification adjustment for net gains realized in net income	(3,471)	(101,117)
Tax effect	729	34,380
Total other comprehensive (loss) income	(1,094,182)	315,822
 Total comprehensive income	 \$ 4,935,501	 \$ 4,455,592

See accompanying notes to the consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY

	Common Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity
Balance, December 31, 2016	\$ 674,375	\$ 2,273,684	\$ 54,452,646	\$ 109,725	\$ (3,917,051)	\$ 53,593,379
Reclassification of certain income tax effects from accumulated other comprehensive income			(83,819)	83,819		
Net income			4,139,770			4,139,770
Other comprehensive loss				315,822		315,822
Stock option compensation expense		31,922				
Purchase of shares by restricted stock plan (24,184 shares)		(488,720)			488,720	
Exercise of stock options (25,748 shares)		(115,016)				
Forfeiture of shares by restricted stock plan (1,046 shares)		21,701			(21,701)	
Amortization of unearned restricted stock plan shares		316,662				316,662
Cash dividends (\$0.92 per share)			(2,301,565)			(2,301,565)
Purchase of treasury stock (6,870 shares)					(179,637)	(179,637)
Sale of treasury stock (24,796 shares)		26,703			510,691	537,394
Balance, December 31, 2017	\$ 674,375	\$ 2,066,936	\$ 56,207,032	\$ 509,366	\$ (3,118,978)	\$ 56,338,731
Net income			6,029,683			6,029,683
Other comprehensive loss				(1,094,182)		(1,094,182)
Reclassification of certain effects from equity securities			716,961	(716,961)		
Stock option compensation expense		48,401				48,401
Purchase of shares by restricted stock plan (15,286 shares)		(238,610)			238,610	
Stock split effected in the form of a dividend (1,348,750)	674,375		(674,375)			
Exercise of stock options (38,436 shares)		(186,211)				
Forfeiture of shares by restricted stock plan (1,018 shares)		13,714			(13,714)	
Amortization of unearned restricted stock plan shares		417,085				417,085
Cash dividends (\$0.94 per share)			(2,396,453)			(2,396,453)
Purchase of treasury stock (17,518 shares)					(517,561)	(517,561)
Sale of treasury stock (44,225 shares)		339,523			749,689	1,089,212
Balance, December 31, 2018	\$ 1,348,750	\$ 2,460,838	\$ 59,882,848	\$ (1,301,777)	\$ (2,661,954)	\$ 59,728,705

See accompanying notes to the consolidated financial statements.

	Year Ended December 31,	
	2018	2017
OPERATING ACTIVITIES		
Net income	\$ 6,029,683	\$ 4,139,770
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for loan losses	955,000	600,000
Investment securities gains, net	(3,471)	(101,117)
Equity security losses	181,665	-
Proceeds from sale of loans held for sale	37,559,342	32,239,960
Origination of loans held for sale	(35,578,050)	(31,646,497)
Gain on sales of loans	(858,426)	(866,798)
Depreciation, amortization, and accretion	1,291,020	1,339,186
Deferred income taxes	250,189	283,626
Increase in accrued interest receivable	(170,155)	(147,625)
Increase in accrued interest payable	197,152	329,023
Earnings on bank-owned life insurance	(421,086)	(429,766)
Gain on sale of other assets	(14,910)	-
Compensation expense	465,486	348,584
Other, net	1,143,565	(1,858,280)
Net cash provided by operating activities	<u>11,027,004</u>	<u>4,230,066</u>
INVESTING ACTIVITIES		
Maturities of certificates of deposit	373,000	-
Acquisition of Benefit Management Group	-	(475,000)
Proceeds from Bank Owned Life Insurance	428,241	-
Investment securities available for sale:		
Proceeds from sale of investments	-	11,101,516
Proceeds from repayments and maturities	14,475,505	10,284,013
Purchases	(4,751,525)	-
Investment held to maturity:		
Purchases	(1,000,000)	-
Proceeds from sale of equity securities	420,180	-
Increase in loans, net	(62,384,910)	(81,330,229)
Purchase of regulatory stock	(1,250,200)	(1,493,400)
Redemption of regulatory stock	1,288,500	1,863,800
Purchase of premises and equipment	(2,265,909)	(1,246,667)
Proceeds from sale of other real estate owned	222,368	117,996
Net cash used for investing activities	<u>(54,444,750)</u>	<u>(61,177,971)</u>
FINANCING ACTIVITIES		
Increase in deposits, net	28,662,988	91,759,445
Increase (decrease) in short-term borrowings, net	13,553,459	(5,852,208)
Proceeds from other borrowings	6,867,416	6,565,000
Repayments of other borrowings	(14,774,310)	(9,982,027)
Purchases of treasury stock	(517,561)	(179,637)
Proceeds from sale of treasury stock	1,089,212	537,394
Exercise of stock options	(186,211)	(115,016)
Cash dividends	(2,396,453)	(2,301,564)
Net cash provided by financing activities	<u>32,298,541</u>	<u>80,431,387</u>
Increase in cash and cash equivalents	(11,119,206)	23,483,482
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	43,887,984	20,404,502
CASH AND CASH EQUIVALENTS AT END OF YEAR	<u>\$ 32,768,778</u>	<u>\$ 43,887,984</u>
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION		
Cash paid during the year for:		
Interest on deposits and borrowings	\$ 8,009,492	\$ 5,693,614
Income taxes	150,000	1,225,000
SUPPLEMENTAL DISCLOSURE OF NON-CASH CASH FLOW INFORMATION		
Real estate acquired in settlement of loans	\$ -	\$ 308,000

See accompanying notes to consolidated financial statements.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A summary of the significant accounting and reporting policies applied in the presentation of the accompanying consolidated financial statements follows:

Nature of Operations and Basis of Presentation

Kish Bancorp, Inc. (the “Company”) is a diversified financial services organization whose principal activity is the ownership and management of its subsidiaries, Kish Bank (the “Bank”), Kish Travel Services, Inc., Tri-Valley Properties, LLC, and the Bank’s subsidiary, Kish Agency, Inc. The Company generates commercial and industrial, agricultural, commercial mortgage, residential real estate, and consumer loans and deposit services to its customers located primarily in central Pennsylvania and the surrounding areas. The Bank operates under a Pennsylvania Department of Banking and Securities bank charter and provides full banking services. Deposits are insured by the Federal Deposit Insurance Corporation (“FDIC”) to the extent provided by law. Kish Agency, Inc. provides insurance products and services. Kish Travel Services, Inc. is a Pennsylvania business established to provide travel services to its customers.

The consolidated financial statements include the accounts of Kish Bancorp, Inc. and its subsidiaries, Kish Bank and Kish Travel Services, Inc., after elimination of all significant intercompany transactions.

The accounting principles followed by the Company and the methods of applying these principles conform to U.S. generally accepted accounting principles (“GAAP”) and to general practice within the banking industry. Management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the Consolidated Balance Sheet date and revenues and expenses for that period. Actual results could differ from those estimates.

Investment Securities

Investment securities are classified at the time of purchase, based on management’s intention and ability, as securities held to maturity, available for sale, or trading. Debt securities acquired with the intent and ability to hold to maturity are stated at cost, adjusted for amortization of premium and accretion of discount, which are computed using the interest method and recognized as adjustments of interest income. Debt securities which are held principally as a source of liquidity are classified as available for sale. Unrealized holding gains and losses for available-for-sale securities are reported as a separate component of stockholders’ equity, net of tax, until realized. Realized security gains and losses are computed using the specific identification method. Debt securities that are bought and held principally for the purpose of selling them in the near term are classified as trading securities and reported at fair value, with unrealized gains and losses included in current earnings. Realized securities gains and losses are computed using the specific identification method. The Company does not have trading securities as of December 31, 2018 and 2017. Interest and dividends on investment securities is recognized as income when earned.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Investment Securities (Continued)

Securities are evaluated at least on a quarterly basis and more frequently when economic or market conditions warrant such an evaluation to determine whether a decline in their value is other than temporary. For debt securities, management considers whether the present value of cash flows expected to be collected are less than the security's amortized cost basis (the difference defined as the credit loss), the magnitude and duration of the decline, the reasons underlying the decline and the Company's intent to sell the security or whether it is more likely than not that the Company would be required to sell the security before its anticipated recovery in fair value, to determine whether the loss in value is other than temporary. Once a decline in value is determined to be other than temporary, if the investor does not intend to sell the security, and it is more likely than not that it will not be required to sell the security before recovery of the security's amortized cost basis, the charge to earnings is limited to the amount of credit loss. Any remaining difference between fair value and amortized cost (the difference defined as the non-credit portion) is recognized in other comprehensive income, net of applicable taxes. Otherwise, the entire difference between fair value and amortized cost is charged to earnings.

Equity Securities

Equity securities are held at fair value. Holding gains and losses are recorded in income. Dividends are recognized as income when earned.

Regulatory Stock

Common stock of the Federal Home Loan Bank ("FHLB") of Pittsburgh represents ownership in an institution that is wholly owned by other financial institutions. These equity securities are accounted for at cost and are shown separately on the Consolidated Balance Sheet as regulatory stock.

The Bank is a member of the FHLB and, as such, is required to maintain a minimum investment in stock of the FHLB that varies with the level of advances outstanding with the FHLB. The stock is bought from and sold to the FHLB based upon its \$100 par value. The stock does not have a readily determinable fair value and, as such, is classified as restricted stock, carried at cost and evaluated by management. The stock's value is determined by the ultimate recoverability of the par value rather than by recognizing temporary declines. The determination of whether the par value will ultimately be recovered is influenced by criteria such as the following: (a) the significance of the decline in net assets of the FHLB as compared with the capital stock amount and the length of time this situation has persisted; (b) commitments by the FHLB to make payments required by law or regulation and the level of such payments in relation to the operating performance; (c) the impact of legislative and regulatory changes on the customer base of the FHLB; and (d) the liquidity position of the FHLB. Management evaluated the stock and concluded that the stock was not impaired for the periods presented herein.

Loans

Loans that management has the intent and ability to hold for the foreseeable future or until maturity or payoff generally are reported at their principal amount, net of the allowance for loan losses and deferred origination fees or costs. Interest on loans is recognized as income when earned on the accrual method. Generally, the policy has been to stop accruing interest on loans when it is determined that a reasonable doubt exists as to the collectability of additional interest. Interest previously accrued but deemed uncollectible is deducted from current interest income. Payments received on nonaccrual loans are recorded as income or applied against the principal according to management's judgment as to the collectability of such principal. Nonaccrual loans will generally be put back on accrual status after demonstrating six consecutive months of no delinquency.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Loans (Continued)

The allowance for loan losses is established through provisions for loan losses charged against income. Loans deemed to be uncollectible are charged against the allowance for loan losses, and subsequent recoveries, if any, are credited to the allowance.

Loan origination fees and certain direct loan origination costs are being deferred and the net amount amortized is accounted for as an adjustment of the related loan's yield. Management is amortizing these amounts over the contractual life of the related loans.

In general, fixed rate, permanent residential mortgage loans originated by the Bank are held for sale and are carried in the aggregate at the lower of cost or fair value. The Bank sells these loans to various other financial institutions. Currently, the Bank retains the servicing of those loans sold to the FHLB and releases the servicing of loans sold to all other institutions.

Allowance for Loan Losses

The allowance for loan losses represents the amount that management estimates is adequate to provide for probable losses inherent in its loan portfolio as of the Consolidated Balance Sheet date. The allowance method is used in providing for loan losses. Accordingly, all loan losses are charged to the allowance, and all recoveries are credited to it. The allowance for loan losses is established through a provision for loan losses charged to operations. The provision for loan losses is based on management's periodic evaluation of individual loans, economic factors, past loan loss experience, changes in the composition and volume of the portfolio, and other relevant factors. The estimates used in determining the adequacy of the allowance for loan losses, including the amounts and timing of future cash flows expected on impaired loans, are particularly susceptible to change in the near term.

Impaired loans are those for which it is probable the Company will not be able to collect all amounts due according to the contractual terms of the loan agreement. The Company evaluates commercial and industrial, agricultural, state and political subdivisions, commercial real estate, and all troubled debt restructuring loans for possible impairment. Consumer and residential real estate loans are also evaluated if part of a commercial lending relationship. The Company individually evaluates such loans for impairment and does not aggregate loans by major risk classifications. The definition of "impaired loans" is not the same as the definition of "nonaccrual loans," although the two categories overlap. Factors considered by management in determining impairment include payment status and collateral value. The amount of impairment for these types of loans is determined by the difference between the present value of the expected cash flows related to the loan using the original interest rate and its recorded value, or as a practical expedient in the case of collateralized loans, the difference between the fair value of the collateral and the recorded amount of the loans. When foreclosure is probable, impairment is measured based on the fair value of the collateral.

Mortgage loans secured by one-to-four family properties and all consumer loans are large groups of smaller-balance homogeneous loans and are measured for impairment collectively. Loans that experience insignificant payment delays, which are defined as 90 days or less, generally are not classified as impaired. Management determines the significance of payment delays on a case-by-case basis, taking into consideration all circumstances concerning the loan, the creditworthiness and payment history of the borrower, the length of the payment delay, and the amount of shortfall in relation to the principal and interest owed.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Allowance for Loan Losses (Continued)

In addition to the allowance for loan losses, the Company also estimates probable losses related to unfunded lending commitments, such as letters of credit, financial guarantees, and unfunded loan commitments. Unfunded lending commitments are subject to individual reviews and are analyzed and segregated by risk according to the Company's internal risk rating scale. These risk classifications, in conjunction with an analysis of historical loss experience, current economic conditions, performance trends within specific portfolio segments, and any other pertinent information, result in the estimation of the reserve for unfunded lending commitments. Provision for credit losses related to the loan portfolio and unfunded lending commitments are reported in the Consolidated Statement of Income.

Premises and Equipment

Land is carried at cost. Premises and equipment are stated at cost, less accumulated depreciation. Depreciation is computed on the straight-line method over the estimated useful lives of the related assets, which range from 3 to 7 years for furniture, fixtures, and equipment, and 31 to 39½ years for building premises. Leasehold improvements are depreciated over the shorter of the term of the lease or useful life. Expenditures for maintenance and repairs are charged against income as incurred. Costs of major additions and improvements are capitalized.

Goodwill

The Company accounts for goodwill using a two-step process for testing the impairment of goodwill on at least an annual basis. This approach could cause more volatility in the Company's reported net income because impairment losses, if any, could occur irregularly and in varying amounts.

Bank-Owned Life Insurance ("BOLI")

The Company purchased life insurance policies on certain key employees. BOLI is recorded at its cash surrender value, or the amount that can be realized.

Real Estate Owned

Real estate acquired by foreclosure is included with other assets on the Consolidated Balance Sheet at the lower of the recorded investment in the property or its fair value less estimated costs of sale. Prior to foreclosure, the value of the underlying collateral is written down by a charge to the allowance for loan losses, if necessary. Any subsequent write-downs are charged against operating expenses. Operating expenses of such properties, net of related income and losses on their disposition, are included in other noninterest expense.

Treasury Stock

Treasury stock is carried at cost. Sales are determined by the first-in, first-out method.

Advertising Costs

Advertising costs are expensed as the costs are incurred.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Income Taxes

The Company and its subsidiaries file a consolidated federal income tax return. Deferred tax assets and liabilities are reflected at currently enacted income tax rates applicable to the period in which the deferred tax assets or liabilities are expected to be realized or settled. As changes in tax laws or rates are enacted, deferred tax assets and liabilities are adjusted through the provision for income taxes.

Earnings Per Share

The Company provides dual presentation of basic and diluted earnings per share. Basic earnings per share are calculated utilizing net income as reported in the numerator and average shares outstanding in the denominator. The computation of diluted earnings per share differs in that the dilutive effects of any stock options, warrants, and convertible securities are adjusted in the denominator. Treasury shares are not deemed outstanding for earnings per share calculations.

Stock Split

The Board of Directors declared a two-for-one stock split effected in the form of a stock dividend payable October 11, 2018. All references to share and per share amounts in the consolidated financial statements, except the Consolidated Balance Sheet, and accompanying notes to the consolidated financial statements have been retroactively restated to reflect the stock split.

Stock Options

As of December 31, 2018 and 2017, the Company recorded compensation expense of \$48,401 and \$31,922, respectively, related to share-based compensation awards. At December 31, 2018, there was approximately \$87,744 in unrecognized compensation cost related to unvested share-based compensation awards granted. That cost is expected to be recognized over the next three years.

For purposes of computing stock compensation expense, the Company estimated the fair values of stock options using the Black-Scholes option-pricing model. The model requires the use of subjective assumptions that can materially affect fair value estimates. The fair value of each option is amortized into compensation expense on a straight-line basis between the grant date for the option and each vesting date. The fair value of each stock option granted was estimated using the following weighted-average assumptions:

Grant Year	Expected Dividend Yield	Risk-Free Interest Rate	Expected Volatility	Expected Life (in Years)
2018	3.39 %	2.73 %	9.40 %	10.00
2017	3.24 %	2.35 %	11.08 %	10.00

The weighted-average fair value of each stock option granted for 2018 and 2017 was \$1.91 and \$2.02, respectively. Stock options exercised during the years ended December 31, 2018 and 2017 were 38,436 and 25,748, respectively.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Mortgage Servicing Rights (“MSRs”)

The Company has agreements for the express purpose of selling loans in the secondary market. The Company retains servicing rights for certain loans. Originated MSRs are recorded by allocating total costs incurred between the loan and servicing rights based on their relative fair values. MSRs are amortized in proportion to the estimated servicing income over the estimated life of the servicing portfolio. The Company performs an impairment review of the MSRs and recognizes impairment through a valuation account. MSRs are a component of accrued interest and other assets on the Consolidated Balance Sheet. Gains and losses on sales of loans are recognized at settlement dates and are determined by the difference between the sales proceeds and the carrying value of the loans. All sales are made with limited recourse. For the years ended December 31, 2018 and 2017, the Company recorded gross servicing rights of \$558,745 and \$630,259, respectively, with a reserve for impairment of \$169,523 and \$214,725, respectively.

Transfer of Assets

Transfers of financial assets are accounted for as sales when control over the assets has been surrendered. Control over transferred assets is deemed to be surrendered when: (1) the assets have been isolated from the Company; (2) the transferee obtains the right (free of conditions that constrain it from taking advantage of that right) to pledge or exchange the transferred assets; and (3) the Company does not maintain effective control over the transferred assets through an agreement to repurchase them before their maturity.

Cash Flow Information

The Company has defined cash and cash equivalents as those amounts included in the balance sheet captions “Cash and due from banks” and “Interest-bearing deposits with other institutions” that have original maturities of less than 90 days.

Reclassification of Comparative Amounts

Certain items previously reported have been reclassified to conform to the current year’s format. Such reclassifications did not affect net income or stockholders’ equity.

Derivatives and Hedging Activities

The Company engages in a number of business activities that are vulnerable to interest rate risk. The associated variability in cash flows related to interest rate risk may impact the results of operations of the Company. The Company’s hedging objective is to reduce, to the extent possible, unpredictable cash flows associated with interest rate risk, via approved hedging strategies, related to business strategies and business objectives.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Derivatives and Hedging Activities (Continued)

All derivatives are recorded on the Consolidated Balance Sheet at fair value. The accounting for changes in the fair value of derivatives depends on whether the Company has elected to designate a derivative in a hedging relationship and apply hedge accounting and whether the hedging relationship has satisfied the criteria necessary to apply hedge accounting. Derivatives designated and qualifying as a hedge of the exposure to changes in the fair value of an asset, liability, or firm commitment attributable to a particular risk, such as interest rate risk, are considered fair value hedges. Derivatives designated and qualifying as a hedge of the exposure to variability in expected future cash flows, or other types of forecasted transactions, are considered cash flow hedges. Hedge accounting generally provides for the matching of the timing of gain or loss recognition on the hedging instrument with the recognition of the changes in the fair value of the hedged asset or liability that are attributable to the hedged risk in a fair value hedge or the earnings effect of the hedged forecasted transactions in a cash flow hedge.

Changes in the fair value of derivatives designated as fair value hedges are recorded in earnings, together and in the same income statement line item with changes in the fair value of the related hedged item. Changes in the fair value of derivatives designated as cash flow hedges are recorded in accumulated other comprehensive loss and are reclassified into the line item in the income statement in which the hedged item is recorded and in the same period in which the hedged item affects earnings. Hedge ineffectiveness and gains and losses on the excluded component of a derivative in assessing hedge effectiveness are recorded in earnings.

Revenue Recognition

The Company’s revenue is comprised of net interest income on financial assets and liabilities, which is explicitly excluded from the scope of the new guidance, and noninterest income. Certain components of noninterest income such as interest rate swap income, income from rabbi trust investments, trading securities gains, gains on sales of mortgage loans, and gains on sales of securities available for sale are accounted for under other U.S. GAAP standards, and are therefore out of scope of the ASC 606 revenue standard. Insurance commissions, service charges on deposit accounts, debit card processing fees, and trust and investment advisory fees are within the scope of the ASC 606 revenue standard. As such, the Company is currently reviewing contracts related to these revenue streams and at this point does not anticipate any material changes to revenue recognition upon adoption; however, the Company’s review is still ongoing. The Company plans to adopt the revenue recognition guidance on January 1, 2019 and anticipates using the modified retrospective transition method upon adoption.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Newly Adopted Accounting Standards

In January 2016, the FASB finalized ASU 2016-01, Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities. This accounting standard: (a) requires separate presentation of equity instruments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) on the balance sheet and measured at fair value with changes in fair value recognized in net income; (b) simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment; (c) eliminates the requirement to disclose the fair values of financial instruments measured at amortized cost for entities that are not significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet; (d) requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes; (e) requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset (that is, securities or loans and receivables) on the balance sheet or the accompanying notes to the financial statements; and (f) clarifies that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets.

The adoption resulted in the Company recognizing a one-time cumulative effect adjustment of \$716,961 between accumulated other comprehensive loss and retained earnings on the Consolidated Balance Sheet for the fair value of equity securities included in accumulated other comprehensive loss as of the beginning of the period. The adjustment had no impact on net income on any prior periods presented.

The Company has adopted this standard during the reporting period. On a prospective basis, the Company implemented changes to the measurement of the fair value of financial instruments using an exit price notion for disclosure purposes included in Note 17 to the financial statements. The December 31, 2017, fair value of each class of financial instruments disclosure did not utilize the exit price notion when measuring fair value, and, therefore, may not be comparable to the December 31, 2018 disclosure.

2. EARNINGS PER SHARE

There are no convertible securities that would affect the numerator in calculating basic and diluted earnings per share; therefore, net income as presented on the Consolidated Statement of Income will be used as the numerator. The following table sets forth the composition of the weighted-average common shares (denominator) used in the basic and diluted earnings per share computation.

	2018	2017
Weighted-average common shares issued	2,697,500	2,697,500
Average treasury stock shares	(145,755)	(193,032)
Average unearned nonvested restricted share plan shares	(52,072)	(45,300)
Weighted-average common shares and common stock equivalents used to calculate basic earnings per share	2,499,673	2,459,168
Additional common stock equivalents (nonvested stock) used to calculate diluted earnings per share	747	224
Additional common stock equivalents (stock options) used to calculate diluted earnings per share	<u>48,853</u>	<u>29,866</u>
Weighted-average common shares and common stock equivalents used to calculate diluted earnings per share	<u>2,549,273</u>	<u>2,489,258</u>

Options to purchase 210,466 shares of common stock at a price of \$12.75 to \$29.63, as of December 31, 2018, and 48,974 shares of restricted stock ranging in price from \$18.25 to \$30.25 were not included in the computation of diluted earnings per share. To include these shares would have been antidilutive.

Options to purchase 212,870 shares of common stock at a price of \$12.75 to \$27.00, as of December 31, 2017, and 50,392 shares of restricted stock ranging in price from \$30.00 to \$55.13 were not included in the computation of diluted earnings per share. To include these shares would have been antidilutive.

3. INVESTMENT SECURITIES

The amortized cost, gross unrealized gains and losses, and fair value of investment securities are as follows:

	2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Available for Sale:				
U.S. treasury securities	\$ 6,995,422	\$ -	\$ (301,712)	\$ 6,693,710
U.S. government agency securities	36,722,369	-	(951,146)	35,771,223
Obligations of states and political subdivisions	46,044,802	236,722	(106,440)	46,175,084
Corporate securities	19,331,836	21,052	(294,807)	19,058,081
Mortgage-backed securities in government-sponsored entities	17,320,809	17,651	(304,961)	17,033,499
Total Available for Sale	<u>\$ 126,415,238</u>	<u>\$ 275,425</u>	<u>\$ (1,959,066)</u>	<u>\$ 124,731,597</u>
Held to Maturity:				
Corporate Securities	<u>\$ 7,000,000</u>	<u>\$ 95,937</u>	<u>\$ -</u>	<u>\$ 7,095,937</u>
	2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Available for Sale:				
U.S. treasury securities	\$ 6,996,146	\$ -	\$ (250,696)	\$ 6,745,450
U.S. government agency securities	32,743,522	-	(675,334)	32,068,188
Obligations of states and political subdivisions	51,262,205	667,103	(66,648)	51,862,660
Corporate securities	23,894,085	176,694	(122,423)	23,948,356
Mortgage-backed securities in government-sponsored entities	21,456,583	80,649	(166,109)	21,371,123
Total Available for Sale	<u>\$ 136,352,541</u>	<u>\$ 924,446</u>	<u>\$ (1,281,210)</u>	<u>\$ 135,995,777</u>
Held to Maturity:				
Corporate Securities	<u>\$ 6,000,000</u>	<u>\$ 162,790</u>	<u>\$ -</u>	<u>\$ 6,162,790</u>

3. INVESTMENT SECURITIES (Continued)

The following tables show the Company's gross unrealized losses and fair value, aggregated by investment category and length of time that the individual securities have been in a continuous unrealized loss position, at December 31, 2018 and 2017.

	2018					
	Less than Twelve Months		Twelve Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. treasury securities	\$ -	\$ -	\$ 6,693,710	\$ (301,712)	\$ 6,693,710	\$ (301,712)
U.S. government agency securities	-	-	35,771,223	(951,146)	35,771,223	(951,146)
Obligations of states and political subdivisions	5,043,758	(5,817)	12,264,334	(100,623)	17,308,092	(106,440)
Corporate securities	6,964,881	(42,206)	8,719,132	(252,601)	15,684,013	(294,807)
Mortgage-backed securities in government-sponsored entities	817,977	(1,151)	14,481,602	(303,810)	15,299,579	(304,961)
Total	<u>\$ 12,826,616</u>	<u>\$ (49,174)</u>	<u>\$ 77,930,001</u>	<u>\$ (1,909,892)</u>	<u>\$ 90,756,617</u>	<u>\$ (1,959,066)</u>
	2017					
	Less than Twelve Months		Twelve Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. treasury securities	\$ 975,350	\$ (10,735)	\$ 5,770,100	\$ (239,961)	\$ 6,745,450	\$ (250,696)
U.S. government agency securities	11,417,325	(120,511)	20,650,863	(554,823)	32,068,188	(675,334)
Obligations of states and political subdivisions	6,087,843	(54,512)	697,451	(12,136)	6,785,294	(66,648)
Corporate securities	3,083,422	(29,545)	7,571,993	(92,877)	10,655,415	(122,423)
Mortgage-backed securities in government-sponsored entities	15,075,655	(113,514)	2,460,569	(52,595)	17,536,224	(166,109)
Total	<u>\$ 36,639,595</u>	<u>\$ (328,817)</u>	<u>\$ 37,150,976</u>	<u>\$ (952,392)</u>	<u>\$ 73,790,571</u>	<u>\$ (1,281,210)</u>

3. INVESTMENT SECURITIES (Continued)

U.S. treasury securities. The unrealized loss on 4 investments in U.S. treasury notes was caused by interest rate increases. The contractual terms of these investments do not permit the issuer to settle the securities at a price less than the amortized cost basis of the investments. Because the Company does not intend to sell the investments and it is not more likely than not that the Company will be required to sell the investments before recovery of their amortized cost basis, which may be maturity, the Company does not consider those investments to be other-than-temporarily impaired at December 31, 2018.

U.S. government agency securities. The unrealized loss on 35 investments in U.S. government obligations and direct obligations of U.S. government agencies was caused by interest rate increases. The contractual terms of these investments do not permit the issuer to settle the securities at a price less than the amortized cost basis of the investments. Because the Company does not intend to sell the investments and it is not more likely than not that the Company will be required to sell the investments before recovery of their amortized cost basis, which may be maturity, the Company does not consider those investments to be other-than-temporarily impaired at December 31, 2018.

Obligations of states and political subdivisions. The Company's unrealized losses on 32 municipal bonds relate to investments within the governmental service sector. The unrealized losses are primarily caused by interest rate increases. The contractual terms of these investments do not permit the issuer to settle the security at a price less than the par value of the investment. The Company currently does not believe it is probable that it will be unable to collect all amounts due according to the contractual terms of the investments. Because the Company does not intend to sell the investments and it is not more likely than not that the Company will be required to sell the investments before recovery of their par value, which may be maturity, it does not consider these investments to be other-than-temporarily impaired at December 31, 2018.

Corporate securities. The Company had unrealized losses on investments in 26 different debt securities that were primarily the result of interest rate increases. The Company currently does not believe it is probable that it will be unable to collect all amounts due, according to the contractual terms of the investments. Because the Company does not intend to sell these securities and it is not more likely than not that the Company will be required to sell the investments before recovery of the amortized cost basis, it does not consider these investments to be other-than-temporarily impaired at December 31, 2018.

Mortgage-backed securities in government-sponsored entities. The unrealized losses on 18 of the Company's investments in mortgage-backed securities were caused by interest rate increases. The Company purchased 0 of these investments at a premium relative to its face amount, and the contractual cash flows of the investments are guaranteed by an agency of the U.S. government. Accordingly, it is expected that the securities would not be settled at a price less than the amortized cost basis of the Company's investment. Because the decline in market value is attributable to changes in interest rates and not credit quality, and because the Company does not intend to sell the investments and it is not more likely than not that the Company will be required to sell the investments before recovery of its amortized cost basis, which may be maturity, the Company does not consider these investments to be other-than-temporarily impaired at December 31, 2018.

3. INVESTMENT SECURITIES (Continued)

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

	Available for Sale		Held to Maturity	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due in one year or less	\$ 9,158,013	\$ 9,138,559	\$ -	\$ -
Due after one year through five years	72,283,428	71,468,860	-	-
Due after five years through ten years	36,032,633	35,382,650	7,000,000	7,095,937
Due after ten years	8,941,164	8,741,528	-	-
Total	<u>\$ 126,415,238</u>	<u>\$ 124,731,597</u>	<u>\$ 7,000,000</u>	<u>\$ 7,095,937</u>

Investment securities with a carrying value of \$112,773,196 and \$130,015,638 at December 31, 2018 and 2017, respectively, were pledged to secure deposits and other purposes as required by law.

The following is a summary of proceeds received, gross gains, and gross losses realized on the sale of investment securities available for sale for the years ended December 31:

	2018	2017
Proceeds from sales	\$ -	\$ 9,508,717
Proceeds from calls	1,055,000	-
Gross gains	3,471	28,806
Gross losses	-	(404,908)

Equity Securities

At December 31, 2017, the Company had \$4,051,862 in equity securities recorded at fair value. Prior to January 1, 2018, equity securities were stated at fair value with unrealized gains and losses reported as a separate component of accumulated other comprehensive income, net of tax. At December 31, 2017, net unrealized gains of \$716,961 had been recognized in accumulated other comprehensive income. On January 1, 2018, these unrealized gains and losses were reclassified out of accumulated other comprehensive income and into retained earnings with subsequent changes in fair value being recognized in net equity securities gains (losses). The following summary of unrealized and realized gains and losses recognized in net income on equity securities during the year ended December 31, 2018:

	2018	2017
Net gains (losses) recognized in equity securities during the year	\$ (181,665)	\$ 907,546
Less: Net gains (losses) realized on sale of equity securities during the year	60,765	-
Unrealized gains (losses) recognized in equity securities held at reporting date	<u>\$ (242,430)</u>	<u>\$ 907,546</u>

4. LOANS

Major classifications of loans are summarized as follows:

	2018	2017
Commercial real estate	\$ 216,677,128	\$ 190,488,417
Commercial and industrial	102,347,634	98,104,822
Agricultural	29,875,122	27,793,961
State and political subdivisions	39,747,975	38,247,171
Consumer	8,256,192	9,644,462
Residential real estate	240,178,495	210,429,202
	637,082,546	574,708,035
Less allowance for loan losses	<u>6,642,410</u>	<u>5,697,810</u>
Net loans	<u>\$ 630,440,136</u>	<u>\$ 569,010,225</u>

Mortgage loans serviced by the Company for others amounted to \$55,853,584 and \$63,196,825 at December 31, 2018 and 2017, respectively.

Unearned fees included in loans receivable amounted to \$14,400 and \$15,662 at December 31, 2018 and 2017, respectively.

The Company grants residential, commercial, and consumer loans to customers throughout its trade area, which is concentrated in central Pennsylvania. Such loans are subject to, at origination, credit risk assessment by management following the Company's lending policy. Although the Company has a diversified loan portfolio at December 31, 2018 and 2017, a substantial portion of its debtors' ability to honor their loan agreements is dependent upon the economic stability of its immediate trade area.

In the normal course of business, loans are extended to directors, executive officers, and their associates. A summary of loan activity for those directors, executive officers, and their associates with loan balances in excess of \$60,000 for the year ended December 31, 2018 and 2017, is as follows:

Balance 2016	Additions	Amounts Collected	Balance 2017	Additions	Amounts Collected	Balance 2018
\$ 13,199,731	\$ 4,782,315	\$ (1,280,296)	\$ 16,701,750	\$ 2,077,750	\$ (1,743,239)	\$ 17,036,261

5. ALLOWANCE FOR LOAN LOSSES

Management has an established methodology to determine the adequacy of the allowance for loan losses that assesses the risks and losses inherent in the loan portfolio. For purposes of determining the allowance for loan losses, the Company has segmented certain loans in the portfolio by product type. Loans are segmented into the following pools: commercial real estate loans, commercial and industrial loans, agricultural loans, state and political subdivision loans, consumer loans, and residential real estate loans. Historical loss percentages for each risk category are calculated and used as the basis for calculating allowance allocations. These historical loss percentages are calculated over a five-year period for all portfolio segments. Certain qualitative factors are then added to the historical loss percentages to get the adjusted factor to be applied to non-classified loans.

The following qualitative factors are analyzed to determine allocations for non-classified loans for each portfolio segment:

- Changes in lending policies and procedures
- Changes in economic and business conditions
- Changes in nature and volume of the loan portfolio
- Changes in lending staff experience and ability
- Changes in past-due loans, nonaccrual loans, and classified loans
- Changes in loan review
- Changes in underlying value of collateral-dependent loans
- Levels of credit concentrations
- Effects of external factors, such as legal and regulatory requirements

5. ALLOWANCE FOR LOAN LOSSES (Continued)

These qualitative factors are reviewed each quarter and adjusted based upon relevant changes within the Bank's operating environment. During 2018, management decreased the qualitative factors reserve percentage for the commercial and industrial and commercial real estate pool of loans because of improving economic conditions both locally and nationally. Further reductions in the commercial and industrial and commercial real estate qualitative factors reserve percentages were made due to the consistent and experienced loan and credit staff in these areas. The qualitative factor reserve percentage for the commercial real estate pool of loans also decreased due to the downward trend of past due loans. Management decreased qualitative factors on reserve percentages for commercial and industrial loan participations transacted with the BancAlliance portfolio for related changes in the economic and business conditions and in the competitive, legal, and regulatory environment of this sector. Management increased the qualitative factors reserve percentage for commercial and industrial, commercial real estate, and the residential pool of loans due to an increase in the volume of these loan portfolios. The qualitative factors reserve for commercial Ag were increased due to changes in economic and business conditions. Management decreased the qualitative factors reserve percentage for Lending Club due to portfolio balances declining approximately one-third of where they were upon inception. Strong asset quality supported by low levels of past-due, non-accrual, and classified loans, and a diversified portfolio with minimal levels of concentration support management's decision to have the remaining qualitative factor reserve percentages unchanged in 2018.

We consider commercial real estate loans, commercial and industrial loans, agricultural loans, and consumer loans to be riskier than one-to-four family residential mortgage loans. Commercial real estate loans entail significant additional credit risks compared to one-to-four family residential mortgage loans, as they involve large loan balances concentrated with single borrowers or groups of related borrowers. In addition, the payment experience on loans secured by income-producing properties typically depends on the successful operation of the related real estate project and/or business operation of the borrower who is also the primary occupant, and thus may be subject to a greater extent to adverse conditions in the real estate market and in the general economy. Commercial and industrial loans, along with agricultural loans, involve a higher risk of default than residential mortgage loans of like duration since their repayment is generally dependent on the successful operation of the borrower's business and the sufficiency of collateral, if any. The repayment of agricultural loans can also be impacted by commodity prices going up and down. Although a customer's ability to repay for both one-to-four family residential mortgage loans and consumer loans is highly dependent on the local economy, especially employment levels, consumer loans as a group generally present a higher degree of risk because of the nature of collateral, if any.

State and political subdivision loans carry the lowest risk, as most state and political subdivision loans are either backed by the full taxing authority of a municipality or the revenue of a municipal authority.

5. ALLOWANCE FOR LOAN LOSSES (Continued)

The following tables present, by portfolio segment, the changes in the allowance for loan losses and the recorded investment in loans as of and for the years ended December 31:

	2018							Total
	Commercial Real Estate	Commercial and Industrial	Agricultural	State and Political Subdivisions	Consumer	Residential Real Estate	Unallocated	
Allowance for loan losses:								
Beginning balance	\$ 2,498,768	\$ 1,230,243	\$ 266,516	\$ 182,082	\$ 134,224	\$ 1,363,855	\$ 22,122	\$ 5,697,810
Charge-offs	-	(35,963)	(9,559)	-	(121,164)	(184,719)	-	(351,405)
Recoveries	304,875	13,754	946	-	21,430	-	-	341,005
Provision	(144,384)	220,767	242,327	6,579	62,047	427,441	140,223	955,000
Ending balance	<u>\$ 2,659,259</u>	<u>\$ 1,428,801</u>	<u>\$ 500,230</u>	<u>\$ 188,661</u>	<u>\$ 96,537</u>	<u>\$ 1,606,577</u>	<u>\$ 162,345</u>	<u>\$ 6,642,410</u>
Ending balance individually evaluated for impairment	\$ 16,523	\$ 2,967	\$ 47,255	\$ -	\$ -	\$ 27,843	\$ -	\$ 94,588
Ending balance collectively evaluated for impairment	\$ 2,642,736	\$ 1,425,834	\$ 452,975	\$ 188,661	\$ 96,537	\$ 1,578,734	\$ 162,345	\$ 6,547,822
Loans:								
Individually evaluated for impairment	\$ 1,556,745	\$ 147,735	\$ 308,024	\$ -	\$ -	\$ 527,519		\$ 2,540,023
Collectively evaluated for impairment	215,120,383	102,199,899	29,567,098	39,747,975	8,256,192	239,650,976		634,542,523
Ending balance	<u>\$ 216,677,128</u>	<u>\$ 102,347,634</u>	<u>\$ 29,875,122</u>	<u>\$ 39,747,975</u>	<u>\$ 8,256,192</u>	<u>\$ 240,178,495</u>		<u>\$ 637,082,546</u>

5. ALLOWANCE FOR LOAN LOSSES (Continued)

	2017							Total
	Commercial Real Estate	Commercial and Industrial	Agricultural	State and Political Subdivisions	Consumer	Residential Real Estate	Unallocated	
Allowance for loan losses:								
Beginning balance	\$ 2,387,561	\$ 1,086,099	\$ 215,719	\$ 204,977	\$ 155,602	\$ 1,383,750	\$ 577,461	\$ 6,011,169
Charge-offs	(550,350)	(210,459)	-	-	(127,675)	(53,881)	-	(942,365)
Recoveries	7,677	8,132	900	-	12,297	-	-	29,006
Provision	653,880	346,471	49,897	(22,895)	94,000	33,986	(555,339)	600,000
Ending balance	<u>\$ 2,498,768</u>	<u>\$ 1,230,243</u>	<u>\$ 266,516</u>	<u>\$ 182,082</u>	<u>\$ 134,224</u>	<u>\$ 1,363,855</u>	<u>\$ 22,122</u>	<u>\$ 5,697,810</u>
Ending balance individually evaluated for impairment	\$ 2,796	\$ 12,286	\$ 31,341	\$ -	\$ -	\$ 28,059	\$ -	\$ 74,482
Ending balance collectively evaluated for impairment	\$ 2,495,972	\$ 1,217,957	\$ 235,175	\$ 182,082	\$ 134,224	\$ 1,335,796	\$ 22,122	\$ 5,623,328
Loans:								
Individually evaluated for impairment	\$ 4,680,918	\$ 382,014	\$ 297,105	\$ 77,085	\$ -	\$ 470,589		\$ 5,907,711
Collectively evaluated for impairment	185,807,499	97,722,808	27,496,856	38,170,086	9,644,462	209,958,613		568,800,324
Ending balance	<u>\$ 190,488,417</u>	<u>\$ 98,104,822</u>	<u>\$ 27,793,961</u>	<u>\$ 38,247,171</u>	<u>\$ 9,644,462</u>	<u>\$ 210,429,202</u>		<u>\$ 574,708,035</u>

From 2017 to 2018, the reserve requirement for commercial real estate loans increased by \$160,491, for residential real estate loans increased by \$242,722, for agricultural loans increased by \$233,714, and for commercial and industrial loans increased by \$198,558 during the same period. This was a result of increases in outstanding balances in each loan category during 2018. In addition, agricultural loans increased due to a large increase in substandard and commercial and industrial loans increased due to a large increase in substandard and Special Mention. At December 31, 2018, total impaired and criticized assets and classified assets for commercial real estate loans was \$4.5 million. This is a \$684,173 decrease from December 31, 2017, or a decrease of 13.2%. This difference was due to a decrease in impaired and criticized assets of \$3.2 million, net an increase of \$2.6 million in classified assets.

Credit Quality Information

The following tables represent the commercial credit exposures by internally-assigned grades for the years ended December 31, 2018 and 2017, respectively. The grading analysis estimates the capability of the borrower to repay the contractual obligations under the loan agreements as scheduled or at all. The Company's internal credit risk grading system is based on experiences with similarly graded loans.

5. ALLOWANCE FOR LOAN LOSSES (Continued)

Credit Quality Information (Continued)

The Company's internally-assigned grades are as follows:

Pass loans are loans which are protected by the current net worth and paying capacity of the obligor or by the value of the underlying collateral. Special Mention loans are loans where a potential weakness or risk exists, which could cause a more serious problem if not corrected. Substandard loans are loans that have a well-defined weakness based on objective evidence and are characterized by the distinct possibility that the Company will sustain some loss if the deficiencies are not corrected. Doubtful loans have all the weaknesses inherent in a substandard asset and these weaknesses make collection or liquidation in full highly questionable and improbable, based on existing circumstances. Finally, loans classified as Loss are considered uncollectible, or of such value that continuance as an asset is not warranted.

	2018				
	Commercial Real Estate	Commercial and Industrial	Agricultural	State and Political Subdivisions	Total
Pass	\$ 212,159,157	\$ 90,408,028	\$ 24,713,695	\$ 39,747,975	\$ 367,028,855
Special Mention	3,344,988	11,021,024	-	-	14,366,012
Substandard	-	918,582	5,130,889	-	6,049,471
Doubtful	1,172,983	-	30,538	-	1,203,521
Total	<u>\$ 216,677,128</u>	<u>\$ 102,347,634</u>	<u>\$ 29,875,122</u>	<u>\$ 39,747,975</u>	<u>\$ 388,647,859</u>
	2017				
	Commercial Real Estate	Commercial and Industrial	Agricultural	State and Political Subdivisions	Total
Pass	\$ 185,286,273	\$ 94,080,746	\$ 27,222,926	\$ 38,247,171	\$ 344,837,116
Special Mention	779,433	3,112,341	489,900	-	4,381,674
Substandard	-	879,449	81,136	-	960,585
Doubtful	4,422,711	32,285	-	-	4,454,996
Total	<u>\$ 190,488,417</u>	<u>\$ 98,104,821</u>	<u>\$ 27,793,962</u>	<u>\$ 38,247,171</u>	<u>\$ 354,634,371</u>

5. ALLOWANCE FOR LOAN LOSSES (Continued)

Credit Quality Information (Continued)

For consumer and residential real estate loans, the Company evaluates credit quality based on whether the loan is considered performing or nonperforming. Nonperforming loans are those loans past due 90 days or more and loans on nonaccrual. The following tables present the balances of consumer and residential real estate loans by classes of loan portfolio based on payment performance as of December 31:

	2018		
	Consumer	Residential Real Estate	Total
Performing	\$ 8,256,192	\$ 239,975,590	\$ 248,231,782
Nonperforming	-	202,905	202,905
Total	<u>\$ 8,256,192</u>	<u>\$ 240,178,495</u>	<u>\$ 248,434,687</u>

	2017		
	Consumer	Residential Real Estate	Total
Performing	\$ 9,644,462	\$ 210,212,909	\$ 219,857,371
Nonperforming	-	216,293	216,293
Total	<u>\$ 9,644,462</u>	<u>\$ 210,429,202</u>	<u>\$ 220,073,664</u>

Age Analysis of Past-Due Loans by Class

The following are tables which show the aging analysis of past-due loans as of December 31:

	2018						
	30-59 Days Past Due	60-89 Days Past Due	90 Days or Greater Past Due	Total Past Due	Current	Total Loans	90 Days and Accruing
Commercial real estate	\$ 162,971	\$ -	\$ 1,172,983	\$ 1,335,954	\$ 215,341,174	\$ 216,677,128	\$ -
Commercial and industrial	-	-	-	-	102,347,634	102,347,634	-
Agricultural	78,222	10,000	30,538	118,760	29,756,362	29,875,122	-
State and political subdivisions	-	-	-	-	39,747,975	39,747,975	-
Consumer	5,029	-	-	5,029	8,251,163	8,256,192	-
Residential real estate	291,704	1,476	202,905	496,085	239,682,410	240,178,495	-
Total	<u>\$ 537,926</u>	<u>\$ 11,476</u>	<u>\$ 1,406,426</u>	<u>\$ 1,955,828</u>	<u>\$ 635,126,718</u>	<u>\$ 637,082,546</u>	<u>\$ -</u>

5. ALLOWANCE FOR LOAN LOSSES (Continued)

Age Analysis of Past-Due Loans by Class (Continued)

	2017						
	30-59 Days Past Due	60-89 Days Past Due	90 Days or Greater Past Due	Total Past Due	Current	Total Loans	90 Days and Accruing
Commercial real estate	\$ -	\$ -	\$ 4,422,711	\$ 4,422,711	\$ 186,065,706	\$ 190,488,417	\$ -
Commercial and industrial	-	6,334	32,285	38,619	98,066,203	98,104,822	-
Agricultural	47,177	-	-	47,177	27,746,784	27,793,961	-
State and political subdivisions	-	-	-	-	38,247,171	38,247,171	-
Consumer	2,407	-	-	2,407	9,642,055	9,644,462	-
Residential real estate	687,599	-	216,293	903,892	209,525,310	210,429,202	-
Total	<u>\$ 737,183</u>	<u>\$ 6,334</u>	<u>\$ 4,671,289</u>	<u>\$ 5,414,806</u>	<u>\$ 569,293,229</u>	<u>\$ 574,708,035</u>	<u>\$ -</u>

Consumer mortgage loans held by the Company in the process of foreclosure amounted to \$308,895 as of December 31, 2018.

Impaired Loans

Management considers commercial real estate loans, commercial and industrial loans, agricultural loans, and state and political subdivision loans which are 90 days or more past due to be impaired. After becoming 90 days or more past due, these categories of loans are measured for impairment. Any consumer and residential real estate loans related to these delinquent loans are also considered to be impaired. Troubled debt restructurings are measured for impairment at the time of restructuring. These loans are analyzed to determine if it is probable that all amounts will not be collected according to the contractual terms of the loan agreement. If management determines that the fair value of the impaired loan is less than the recorded investment in the loan (net of previous charge-offs, deferred loan fees or costs, and unamortized premium or discount), impairment is recognized through a provision or through a charge to the allowance for loan losses.

5. ALLOWANCE FOR LOAN LOSSES (Continued)

Impaired Loans (Continued)

The following tables include the recorded investment and unpaid principal balances for impaired loans with the associated allowance amount as of December 31:

	2018				
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Average Recorded Investment	Interest Income Recognized
With no related allowance recorded:					
Commercial real estate	\$ 1,377,295	\$ 1,377,295	\$ -	\$ 2,797,828	\$ 10,874
Commercial and industrial	-	-	-	175,644	-
Agricultural	42,895	42,895	-	57,604	2,900
State and political subdivisions	-	-	-	6,390	-
Consumer	-	-	-	-	-
Residential real estate	324,290	324,290	-	259,406	4,290
	1,744,480	1,744,480	-	3,296,872	18,064
With an allowance recorded:					
Commercial real estate	179,449	179,449	16,523	179,626	11,794
Commercial and industrial	147,735	147,735	2,967	25,189	9,819
Agricultural	265,129	265,129	47,255	239,601	13,996
State and political subdivisions	-	-	-	-	-
Consumer	-	-	-	4,292	-
Residential real estate	203,230	203,230	27,843	192,642	10,152
	795,543	795,543	94,588	641,350	45,761
Total:					
Commercial real estate	1,556,745	1,556,744	16,523	2,977,454	22,668
Commercial and industrial	147,735	147,735	2,967	200,833	9,819
Agricultural	308,024	308,024	47,255	297,205	16,896
State and political subdivisions	-	-	-	6,390	-
Consumer	-	-	-	4,292	-
Residential real estate	527,519	527,520	27,843	452,048	14,442
Total	\$ 2,540,023	\$ 2,540,023	\$ 94,588	\$ 3,938,222	\$ 63,825

5. ALLOWANCE FOR LOAN LOSSES (Continued)

Impaired Loans (Continued)

	2017				
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Average Recorded Investment	Interest Income Recognized
With no related allowance recorded:					
Commercial real estate	\$ 4,646,148	\$ 4,646,148	\$ -	\$ 5,834,297	\$ 11,811
Commercial and industrial	203,505	203,505	-	243,207	10,859
Agricultural	94,659	94,659	-	101,588	5,490
State and political subdivisions	77,085	77,085	-	80,931	3,715
Consumer	-	-	-	-	-
Residential real estate	290,815	290,815	-	579,843	5,489
	5,312,212	5,312,212	-	6,839,866	37,364
With an allowance recorded:					
Commercial real estate	34,770	34,770	2,796	714,262	1,907
Commercial and industrial	178,509	178,509	12,286	90,889	12,509
Agricultural	202,446	202,446	31,341	205,897	9,318
State and political subdivisions	-	-	-	-	-
Consumer	-	-	-	19,333	-
Residential real estate	179,774	179,774	28,059	198,159	9,026
	595,499	595,499	74,482	1,228,540	32,760
Total:					
Commercial real estate	4,680,918	4,680,918	2,796	6,548,559	13,718
Commercial and industrial	382,014	382,014	12,286	334,096	23,368
Agricultural	297,105	297,105	31,341	307,485	14,808
State and political subdivisions	77,085	77,085	-	80,931	3,715
Consumer	-	-	-	19,333	-
Residential real estate	470,589	470,589	28,059	778,002	14,515
Total	\$ 5,907,711	\$ 5,907,711	\$ 74,482	\$ 8,068,406	\$ 70,124

Nonaccrual Loans

Loans are considered nonaccrual upon reaching 90 days of delinquency even though the Company may be receiving partial payments of interest and partial repayments of principal on such loans. When a loan is placed on nonaccrual status, previously accrued but unpaid interest is deducted from interest income. Interest income that would have been recorded on nonaccrual loans in accordance with their original terms totaled approximately \$600,000 in 2018 and \$1.2 million in 2017.

5. ALLOWANCE FOR LOAN LOSSES (Continued)

Nonaccrual Loans (Continued)

The following table includes the loan balances on nonaccrual status as of December 31:

	2018	2017
Commercial real estate	\$1,172,983	\$4,422,711
Commercial and industrial	-	32,285
Agricultural	30,538	-
Residential real estate	202,905	216,293
Total	<u>\$1,406,426</u>	<u>\$4,671,289</u>

Troubled Debt Restructuring (TDRs)

The Company's loan portfolio also includes certain loans that have been modified in a troubled debt restructuring, where economic concessions have been granted to borrowers who have experienced or are expected to experience financial difficulties. These concessions typically result from the Company's loss mitigation activities and could include reductions in the interest rate, payment extensions, forgiveness of principal, forbearance, or other actions.

When the Company modifies a loan, management evaluates any possible impairment based on the present value of expected future cash flows, discounted at the contractual interest rate of the original loan agreement. If management determines that the value of the modified loan is less than the recorded investment in the loan, impairment is recognized by segment of class of loan, as applicable, either through a charge-off to the allowance or a specific reserve. Segment and class status are determined by the loan's classification at origination. As of December 31, 2018, a specific reserve allocation of \$94,588 has been established against the troubled debt restructurings and no charge-offs for the troubled debt restructurings were required.

The restructuring of the below loan was due to an extension of the maturity date. No modifications involved any changes in principal balance for 2018 or 2017. There were no loans modified in a troubled debt restructuring from January 1, 2016 through December 31, 2017, that subsequently defaulted (i.e., 90 days or more past due following a modification) during the years ended December 31, 2018 and 2017, respectively. There were no loan modifications that were considered troubled debt restructurings for the year ended December 31, 2017.

Loan modifications that are considered troubled debt restructurings completed during the year ended December 31, 2018 were as follows:

	2018	
	Pre-Modification Number of Contracts	Post-Modification Outstanding Recorded Investment
Troubled debt restructurings:		
Commercial and industrial	1 \$	17,577 \$

6. PREMISES AND EQUIPMENT

Major classifications of premises and equipment are summarized as follows:

	2018	2017
Land and land improvements	\$ 2,200,547	\$ 1,307,103
Building and leasehold improvements	18,496,846	17,762,296
Furniture, fixtures, and equipment	<u>7,242,320</u>	<u>6,840,866</u>
	27,939,713	25,910,265
Less accumulated depreciation	13,757,405	12,913,597
Total	<u>\$ 14,182,308</u>	<u>\$ 12,996,668</u>

Depreciation charged to operations was \$1,074,414 in 2018 and \$1,016,345 in 2017.

7. GOODWILL

As of the years ended December 31, 2018 and 2017, goodwill had a gross carrying amount of \$2,757,712 and accumulated amortization of \$614,013 for a net carrying value of \$2,143,699. The carrying amount of goodwill was tested for impairment in the fourth quarter, after the annual forecasting process. There was no impairment for the years ended December 31, 2018 and 2017.

8. DEPOSITS

The scheduled maturities of time deposits approximate the following:

Year Ending December 31,	Amount
2019	\$ 132,592,762
2020	74,426,994
2021	25,907,659
2022	18,120,019
2023	5,748,166
Thereafter	1,258,916
	<u>\$ 258,054,517</u>

The aggregate of all time deposit accounts of \$250,000 or more amounted to \$65,257,519 and \$93,941,525 at December 31, 2018 and 2017, respectively. The total amount of Brokered Deposits included above for each of the years ended December 31, 2018 and 2017 were \$2,800,000 and \$5,662,000, respectively. Depositors with over 5% of total deposits include one depositor at \$14.9 million as of December 31, 2018.

9. SHORT-TERM BORROWINGS

Short-term borrowings include overnight repurchase agreements through the FHLB, federal funds purchased, and repurchase agreements with customers. Short-term borrowings also include funds from a \$5,000,000 unsecured line of credit with a commercial bank for the years ended December 31, 2018 and 2017, respectively. The line of credit agreement contains various covenants requiring the Company to maintain certain levels of financial performance. The outstanding balances and related information for short-term borrowings are summarized as follows:

	2018	2017
Balance at year-end	\$ 22,484,169	\$ 8,930,710
Average balance outstanding	19,831,315	5,333,368
Maximum month-end balance	23,647,311	10,018,072
Weighted-average rate at year-end	2.52%	1.34%
Weighted-average rate during the year	0.35%	0.58%

The collateral pledged on the repurchase agreements by the remaining contractual maturity of the repurchase agreements in the Consolidated Balance Sheets as of years ended December 31, 2018 and 2017, is presented in the following table.

	Remaining Contractual Maturity Overnight and Continuous	
	December 31, 2018	December 31, 2017
Securities of U.S Government Agencies, U.S Treasuries and obligations of state and political subdivisions pledged, fair value	\$ 7,465,235	\$ 3,600,854
Repurchase agreements	2,104,169	2,550,710

10. OTHER BORROWINGS

The following table sets forth information concerning other borrowings:

Description	Maturity Range		Weighted-Average Interest Rate	Stated Interest Rate Range		At December 31,	
	From	To		From	To	2018	2017
Fixed rate	05/03/19	08/04/26	2.05 %	1.04 %	4.00 %	\$ 50,621,498	\$ 50,297,498
Fixed rate amortizing	02/04/19	07/15/24	1.72	1.08	1.96	10,097,457	13,328,352
Mid-term repos	01/29/19	01/29/19	1.30	1.30	1.30	1,000,000	6,000,000
Subordinated capital notes	03/24/24	03/03/26	5.07	4.75	5.25	10,120,000	10,120,000
Note payable	03/17/35	11/23/35	4.47	4.15	4.79	6,186,000	6,186,000
						<u>\$ 78,024,955</u>	<u>\$ 85,931,850</u>

10. OTHER BORROWINGS (Continued)

Maturities of other borrowings at December 31, 2018, are summarized as follows:

Year Ending December 31,	Amount	Weighted-Average Rate
2019	\$ 2,267,495	1.17 %
2020	14,890,735	1.70
2021	11,854,060	2.05
2022	12,916,000	2.18
2023	11,653,167	1.98
2024 and after	24,443,498	4.01
	<u>\$ 78,024,955</u>	2.58 %

Borrowing capacity consists of credit arrangements with the FHLB. FHLB borrowings are subject to annual renewal, incur no service charges, and are secured by a blanket security agreement on certain investment and mortgage-backed securities, outstanding residential mortgages, and the Bank's investment in FHLB stock. As of December 31, 2018, the Bank's maximum borrowing capacity with the FHLB was approximately \$292.8 million.

The Bank may request a Federal Reserve Advance secured by acceptable collateral. The Bank's maximum borrowing capacity with the Federal Reserve Bank as of December 31, 2018 is approximately \$7.1 million.

The Bank also maintains a \$10.0 million, \$10.0 million, and a \$5.0 million federal funds line of credit with three other financial institutions. The Bank did not have outstanding borrowings related to these lines of credit at December 31, 2018.

In 2014, the Company formed a special purpose entity ("Entity") to issue \$3,093,000 of fixed/floating rate subordinated debt securities with a stated maturity of March 17, 2035. The rate on these securities is determined quarterly and floats based on three-month LIBOR plus 2.00 percent. The Entity may redeem them, in whole or in part, at face value on or after March 17, 2010. The Company borrowed the proceeds from the Entity in the form of a \$3,093,000 note payable, which is included in the liabilities section of the Company's Consolidated Balance Sheet.

In 2015, the Company formed an additional special purpose entity to issue \$3,093,000 of fixed/floating rate subordinated debt securities with a stated maturity of November 23, 2035. These securities had a fixed rate of 6.11 percent until November 23, 2015, at which time the rate converted to floating, is determined quarterly, and floats based on three-month LIBOR plus 1.50 percent. The Entity may redeem them, in whole or in part, at face value on or after November 23, 2010. The Company borrowed the proceeds from the Entity in the form of a \$3,093,000 note payable, which is included in the liabilities section of the Company's Consolidated Balance Sheet.

The Company's minority interests in these entities were recorded at the initial investment amount and are included in the accrued interest and other assets on the Consolidated Balance Sheet. These entities are not consolidated as part of the Company's consolidated financial statements.

In 2014, the Company issued \$3,620,000 of fixed rate subordinated capital notes with stated maturities of March 24, 2024 through December 26, 2024. These securities bear a fixed annual rate of 4.75 percent. The Company may redeem them, in whole or in part, at face value on or after March 24, 2019. These borrowings are included in the liabilities section of the Company's Consolidated Balance Sheet.

10. OTHER BORROWINGS (Continued)

In 2015, the Company issued \$6,500,000 of fixed rate subordinated capital notes with stated maturities of September 22, 2025 through March 3, 2026. The fixed securities bear an annual rate of 5.25 percent. The Company may redeem them, in whole or in part, at face value on or after September 22, 2020. These borrowings are included in the liabilities section of the Company's Consolidated Balance Sheet.

In 2015, the Company issued \$650,000 of fixed rate senior debt with stated maturities of September 2020 through November 2020. The fixed rate securities bear an annual rate of 4.00 percent. These borrowings are included in the liabilities section of the Company's Consolidated Balance Sheet.

11. DERIVATIVE FINANCIAL INSTRUMENTS

Risk Management Objective of Using Derivatives

The Company is exposed to certain risks arising from both its business operations and economic conditions. The Company principally manages its exposures to a wide variety of business and operational risks through management of its core business activities. The Company manages economic risks, including interest rate, liquidity, and credit risk, primarily by managing the amount, sources, and duration of its assets and liabilities and through the use of derivative financial instruments. Specifically, the Company enters into derivative financial instruments to manage exposures that arise from business activities that result in the receipt or payment of future known and uncertain cash amounts, the value of which are determined by interest rates. The Company's derivative financial instruments are used to manage differences in the amount, timing, and duration of the Company's known or expected cash receipts and its known or expected cash payments principally related to certain variable rate borrowings. The Company also has interest rate derivatives that result from a service provided to certain qualifying customers and, therefore, are not used to manage interest rate risk in the Company's assets or liabilities. The Company manages a matched book with respect to its derivative instruments in order to minimize its net risk exposure resulting from such transactions.

The Company has contracted with a third party to engage pay-fixed interest rate swap contracts and the outstanding as of December 31, 2018, is being utilized to hedge \$20.0 million in floating rate debt. At December 31, 2018 and 2017, the information pertaining to outstanding interest rate swap agreements is as follows:

	2018	2017
Notional amount	\$ 20,000,000	\$ 6,000,000
Weighted-average pay rate	2.50 %	1.99 %
	3-Month	3-Month
Receive rate	Libor	Libor
Weighted-average maturity in years	7.4	7.0
Unrealized gain relating to interest rate swaps	40,384	93,989

For derivatives designated as cash flow hedges, the effective portion of changes in the fair value of the derivative is initially reported in other comprehensive income (outside of earnings), net of tax, and subsequently reclassified to earnings when the hedged transaction affects earnings, and the ineffective portion of changes in the fair value of the derivative is recognized directly in earnings. The Company assesses the effectiveness of each hedging relationship by comparing the changes in cash flows of the derivative hedging instrument with the changes in cash flows of the designated hedged transactions. The Company did not recognize any hedge ineffectiveness in earnings during the period ended December 31, 2018.

11. DERIVATIVE FINANCIAL INSTRUMENTS (Continued)

Cash Flow Hedges of Interest Rate Risk

The Company's objectives in using interest rate derivatives are to add stability to interest income and expense and to manage its exposure to interest rate movements. To accomplish this objective, the Company has entered into interest rate swaps as part of its interest rate risk management strategy. These interest rate swaps are designated as cash flow hedges and involve the receipt of variable rate amounts from a counterparty in exchange for the Company making fixed interest payments. As of December 31, 2018, the Company had three interest rate swaps with a notional amount of \$20.0 million associated with the Company's cash outflows, which are associated with various floating-rate amounts.

Amounts reported in accumulated other comprehensive income related to derivatives will be reclassified to interest expense as interest payments are made on the Company's variable-rate liabilities. During the next twelve months, the Company estimates that \$0 will be reclassified as an increase in interest expense.

Credit-Risk-Related Contingent Features

The Company has agreements with certain of its derivative counterparties that contain the following provisions:

- if the Company defaults on any of its indebtedness, including default where repayment of the indebtedness has not been accelerated by the lender, then the Company could also be declared in default on its derivative obligations;
- if the Company fails to maintain its status as a well/adequately capitalized institution, then the counterparty could terminate the derivative positions, and the Company would be required to settle its obligations under the agreements;
- if the Company fails to maintain a specified minimum leverage ratio, then the Company could be declared in default on its derivative obligations.

At December 31, 2018, the fair value of derivatives in a net asset position, which includes accrued interest and any credit valuation adjustments related to these agreements, was \$40,384. At December 31, 2018, the Company had required cash collateral with certain of its derivative counterparties in the amount of \$1,410,000 and was holding cash collateral of certain derivative counterparties in the amount of \$260,000. If the Company had breached any of the above provisions at December 31, 2018, it would have been required to settle its obligations under the agreements at termination value and would have been required to pay any additional amounts due in excess of amounts previously posted as collateral with the respective counterparty.

11. DERIVATIVE FINANCIAL INSTRUMENTS (Continued)

Fair Values of Derivative Instruments on the Balance Sheet

The following table presents the fair values of derivative instruments in the balance sheet:

	Assets		Liabilities	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
December 31, 2018				
Interest rate derivatives	Other assets	\$ 40,384	Other liabilities	\$ -
December 31, 2017				
Interest rate derivatives	Other assets	\$ 93,989	Other liabilities	\$ (3,511)

Derivative Instruments

The Company enters into interest rate swaps that allow its commercial loan customers to effectively convert a variable-rate commercial loan agreement to a fixed-rate loan agreement. Under these agreements, the Company enters into a variable-rate loan agreement with a customer in addition to an interest rate swap agreement, which serves to effectively swap the customer's variable rate into a fixed rate. The Company then enters into a swap agreement with a third party in order to economically hedge its exposure through the customer agreement.

Although the Company has determined that the majority of the inputs used to value its derivatives fall within Level 2 of the fair value hierarchy, the credit valuation adjustments associated with its derivatives may use Level 3 inputs, such as estimates of current credit spreads to evaluate the likelihood of default by itself and its counterparties. However, at December 31, 2018, the Company has assessed the significance of the impact of the credit valuation adjustments on the overall valuation of its derivative positions and has determined they are not significant. As a result, the Company has determined that its derivative valuations in their entirety are classified in Level 2 of the fair value hierarchy.

	Notional Amount		Interest Rate Paid	Interest Rate Received	Fair Value	
	December 31, 2018	December 31, 2017			December 31, 2018	December 31, 2017
Third Party interest rate swap						
Maturing in 2024	\$ 6,000,000	\$ 6,000,000	Fixed	3-Month Libor	\$ 172,609	\$ 90,478
Maturing in 2025	\$ 6,000,000	\$ -	Fixed	3-Month Libor	\$ (48,386)	\$ -
Maturing in 2026	\$ 8,000,000	\$ -	Fixed	3-Month Libor	\$ (83,839)	\$ -
	<u>\$ 20,000,000</u>	<u>\$ 6,000,000</u>			<u>\$ 40,384</u>	<u>\$ 90,478</u>

12. INCOME TAXES

The provision for federal income taxes consists of:

	2018	2017
Current	\$ 390,375	\$ 718,003
Deferred	250,189	(133,226)
Change in corporate tax rate	-	416,852
Total provision	<u>\$ 640,564</u>	<u>\$ 1,001,629</u>

The tax effects of deductible and taxable temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at December 31, 2018 and 2017 are as follows:

	2018	2017
Deferred tax assets:		
Allowance for loan losses	\$ 1,394,906	\$ 1,196,540
Deferred compensation	230,860	230,166
Core deposit intangible assets	17,159	15,060
Alternative minimum tax carryforward	-	927,273
Asset valuation allowances	76,185	92,342
Employee compensation accruals	316,275	278,459
Nonaccrual interest receivable	125,256	248,405
Unrealized loss on available-for-sale securities	353,116	-
Other	3,174	1,235
Deferred tax assets	<u>2,516,931</u>	<u>2,989,480</u>
Deferred tax liabilities:		
Premises and equipment	677,740	484,726
Goodwill	342,831	340,247
Deferred loan fees	68,532	61,970
Partnerships	177,933	170,142
Other	3,346	3,346
Unrealized gain on available-for-sale securities	-	115,664
Unrealized gain on swaps - balance sheet hedge	7,523	19,737
Fair value adjustment - equity securities	141,849	-
Deferred tax liabilities	<u>1,419,754</u>	<u>1,195,832</u>
Net deferred tax assets	<u>\$ 1,097,177</u>	<u>\$ 1,793,648</u>

No valuation allowance was established at December 31, 2018 and 2017, in view of the Company's ability to carryback taxes paid in previous years and certain tax strategies, coupled with the anticipated future taxable income as evidenced by the Company's earnings potential.

12. INCOME TAXES (Continued)

The reconciliation between the federal statutory rate and the Company's effective consolidated income tax rate is as follows:

	2018		2017	
	Amount	% of Pretax Income	Amount	% of Pretax Income
Provision at statutory rate	\$ 1,400,752	21.0 %	\$ 1,748,076	34.0 %
Tax-exempt interest	(474,336)	(7.1)	(907,417)	(17.6)
Life insurance income	(74,099)	(1.1)	(46,308)	(0.9)
Change in corporate tax rate	-	-	(416,852)	(8.1)
Other	(211,753)	(3.2)	624,130	12.1
Actual tax expense and effective rate	<u>\$ 640,564</u>	<u>9.6 %</u>	<u>\$ 1,001,629</u>	<u>19.5 %</u>

The Tax Cuts and Jobs Act, enacted on December 22, 2017, lowered the federal corporate income tax rate from 35% to 21% effective January 1, 2018. As a result, the carrying value of net deferred tax assets was reduced, which increased income tax expense by \$416,852 effective December 31, 2017.

The Company prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Benefits from tax positions should be recognized in the financial statements only when it is more likely than not that the tax position will be sustained upon examination by the appropriate taxing authority that would have full knowledge of all relevant information. A tax position that meets the more-likely-than-not recognition threshold is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. Tax positions that previously failed to meet the more-likely-than-not recognition threshold should be recognized in the first subsequent financial reporting period in which that threshold is met. Previously recognized tax positions that no longer meet the more-likely-than-not recognition threshold should be derecognized in the first subsequent financial reporting period in which that threshold is no longer met.

There is currently no liability for uncertain tax positions and no known unrecognized tax benefits. The Company recognizes, when applicable, interest and penalties related to unrecognized tax benefits in the provision for income taxes in the Consolidated Statement of Income. The Company's federal and state income tax returns for taxable years through 2014 have been closed for purposes of examination by the Internal Revenue Service and the Pennsylvania Department of Revenue.

13. EMPLOYEE BENEFITS

Savings Plan

The Bank maintains a qualified 401(k) salary reduction and profit sharing plan that covers substantially all employees. Under the plan, employees make voluntary, pretax contributions to their accounts, and the Bank contributions to the plan are at the discretion of the Board of Directors. Contributions by the Bank charged to operations were \$404,238 and \$355,319 for the years ended December 31, 2018 and 2017, respectively. The fair value of plan assets includes \$2,536,411 and \$1,882,945 pertaining to the value of the Company's common stock that is held by the plan as of December 31, 2018 and 2017, respectively.

Deferred Compensation Plan

The Company has a nonqualified deferred compensation plan that allows directors and senior executives to defer fees and salaries. Outstanding balances under this arrangement for 2018 and 2017 were \$1,099,333 and \$1,096,030, respectively, and are reported as "Other liabilities" on the Consolidated Balance Sheet. Expenses related to this plan were a loss of \$88,572 and a gain of \$160,022 for December 31, 2018 and 2017, respectively.

Restricted Stock Plan

The Company maintains a Restricted Stock Plan (the "Plan"). Employees and non-employee corporate directors are eligible to receive awards of restricted stock based upon performance-related requirements. Awards granted under the Plan are in the form of the Company's common stock and are subject to certain vesting requirements including continuous employment or service with the Company. The Company has authorized 60,000 shares of the Company's common stock to the plan. The Plan assists the Company in attracting, retaining, and motivating employees and non-employee directors to make substantial contributions to the success of the Company and to increase the emphasis on the use of equity as a key component of compensation. Compensation expense recognized related to the vesting of shares was \$379,583 and \$316,662 for the years ended December 31, 2018 and 2017, respectively.

The following is a summary of the status of the Company's restricted stock as of December 31, 2018, and changes therein during the year then ended:

	Number of Shares of Restricted Stock	Weighted-Average Grant Date Fair Value
Nonvested at January 1, 2017	42,364	\$ 20.05
Granted	24,184	27.27
Vested	(15,580)	20.02
Forfeited	(576)	22.04
Nonvested at December 31, 2017	50,392	\$ 23.50
Granted	15,286	29.63
Vested	(15,853)	22.33
Forfeited	(865)	22.71
Nonvested at December 31, 2018	<u>48,960</u>	<u>\$ 25.80</u>

13. EMPLOYEE BENEFITS (Continued)

Stock Option Plan

The Company has a fixed director and employee stock-based compensation plan. The plan has total options available to grant of 760,000 shares of common stock. The exercise price for the purchase of shares subject to a stock option may not be less than 100 percent of the fair market value of the shares covered by the option on the date of the grant. The term of stock options will not exceed ten years from the date of grant. Options granted are primarily vested evenly over a three-year period from the grant date.

The following table presents share data related to the outstanding options:

	Number of Options	Weighted- Average Exercise Price
Outstanding, January 1, 2017	214,282	\$ 18.23
Granted	31,356	27.00
Exercised	(25,748)	16.96
Forfeited/Expired	(7,020)	21.46
Outstanding, December 31, 2017	212,870	\$ 19.57
Granted	37,640	29.63
Exercised	(38,436)	17.74
Forfeited/Expired	(1,608)	27.69
Outstanding, December 31, 2018	<u>210,466</u>	<u>\$ 21.64</u>
Exercisable at year-end	<u>139,348</u>	<u>\$ 18.71</u>

13. EMPLOYEE BENEFITS (Continued)

Stock Option Plan (Continued)

The following table summarizes the characteristics of stock options at December 31, 2018:

Grant Date	Exercise Price	Shares	Outstanding		Exercisable	
			Contractual Average Life	Average Exercise Price	Shares	Average Exercise Price
03/26/09	\$ 12.75	6,400	0.23	\$ 12.75	6,400	\$ 12.75
04/01/10	\$ 17.06	14,400	1.24	\$ 17.06	14,400	\$ 17.06
04/28/11	\$ 14.88	10,600	2.32	\$ 14.88	10,600	\$ 14.88
04/02/12	\$ 15.00	12,200	3.25	\$ 15.00	12,200	\$ 15.00
04/01/13	\$ 16.63	18,760	4.25	\$ 16.63	18,760	\$ 16.63
04/01/14	\$ 18.25	11,008	5.25	\$ 18.25	11,008	\$ 18.25
09/22/14	\$ 19.75	1,000	5.72	\$ 19.75	1,000	\$ 19.75
04/01/15	\$ 19.48	29,300	6.25	\$ 19.48	29,300	\$ 19.48
04/01/16	\$ 22.00	35,648	7.25	\$ 22.00	23,084	\$ 22.00
10/31/16	\$ 22.40	2,000	7.83	\$ 22.40	1,320	\$ 22.40
12/12/16	\$ 22.38	2,000	7.95	\$ 22.38	1,320	\$ 22.38
04/03/17	\$ 27.00	30,710	8.25	\$ 27.00	9,956	\$ 27.00
04/02/18	\$ 29.63	36,440	9.25	\$ 29.63	-	\$ 29.63
		<u>210,466</u>			<u>139,348</u>	

14. COMMITMENTS

In the normal course of business, there are outstanding commitments and contingent liabilities such as commitments to extend credit, financial guarantees, and letters of credit that are not reflected in the accompanying consolidated financial statements. The Company does not anticipate any losses as a result of these transactions. These instruments involve, to varying degrees, elements of credit and interest rate risk in excess of the amount recognized in the Consolidated Balance Sheet.

The contract or notional amounts of those instruments reflect the extent of involvement the Company has in the particular classes of financial instruments that consisted of the following:

	2018	2017
Commitments to extend credit	\$ 149,468,932	\$ 157,013,677
Standby letters of credit	4,996,216	5,308,908
Total	<u>\$ 154,465,148</u>	<u>\$ 162,322,585</u>

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since many of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements.

Standby letters of credit represent conditional commitments issued by the Company to guarantee the performance of a customer to a third party. These instruments are issued primarily to support bid or performance-related contracts. The coverage period for these instruments is typically a one-year period, with an annual renewal option subject to prior approval by management. Fees earned from the issuance of these letters are recognized upon expiration of the commitment period. For secured letters of credit, the collateral is typically Bank deposit instruments or real estate.

The Bank has committed to various operating leases for its branch and office facilities. Some of these leases include renewal options as well as specific provisions relating to rent increases. The minimum annual rental commitments under these leases outstanding at December 31, 2018, are as follows:

	Minimum Lease Payment
2019	\$ 396,969
2020	377,181
2021	336,934
2022	331,897
2023	333,915
Thereafter	<u>3,934,757</u>
Total	<u>\$ 5,711,653</u>

Rent expense under leases for each of the years ended December 31, 2018 and 2017, was \$379,674 and \$358,994, respectively.

14. COMMITMENTS (Continued)

Contingent Liabilities

The Company from time to time may be a party in various legal actions from the normal course of business activities. Management believes the liability, if any, arising from such actions will not have a material adverse effect on the Company's financial position.

15. REGULATORY RESTRICTIONS

Restriction on Cash and Due from Banks

The Bank is required to maintain reserve funds in cash or on deposit with the Federal Reserve Bank. The required reserve at December 31, 2018 and 2017 was \$3,150,000 and \$2,399,000, respectively.

Loans

Federal law prevents the Company from borrowing from the Bank unless the loans are secured by specific obligations. Further, such secured loans are limited in amount to 10 percent of the Bank's common stock and capital surplus.

Dividends

The Pennsylvania Banking Code restricts the availability of capital surplus for dividend purposes. At December 31, 2018, the Bank had a capital surplus of \$5,723,535 which was not available for distribution to the Company as dividends.

16. REGULATORY CAPITAL

Federal regulations require the Company and the Bank to maintain minimum amounts of capital. Specifically, each is required to maintain certain minimum dollar amounts and ratios of Total and Tier I capital to risk-weighted assets and of Tier I capital to average total assets. In 2015, BASEL III was implemented that required the Bank to maintain an additional Common Equity Tier 1 capital ratio.

In addition to the capital requirements, the Federal Deposit Insurance Corporation Improvement Act ("FDICIA") established five capital categories ranging from "well capitalized" to "critically undercapitalized." Should any institution fail to meet the requirements to be considered "adequately capitalized," it would become subject to a series of increasingly restrictive regulatory actions.

As of December 31, 2018 and 2017, the FDIC categorized the Company and the Bank as well capitalized under the regulatory framework for prompt corrective action. To be classified as a well-capitalized financial institution, Total risk-based, Common Equity Tier I, Tier I risk-based, and Tier I leverage capital ratios must be at least 10 percent, 6.50 percent, 6 percent, and 5 percent, respectively.

16. REGULATORY CAPITAL (Continued)

The Company's actual capital ratios are presented in the following table that shows the Company met all regulatory capital requirements:

	2018		2017	
	Amount	Ratio	Amount	Ratio
Total capital				
<u>(to risk-weighted assets)</u>				
Actual	\$ 81,649,007	11.95 %	\$ 75,941,873	11.65 %
For capital adequacy purposes	54,674,300	8.00	52,161,842	8.00
To be well capitalized	68,342,875	10.00	65,202,302	10.00
Common Equity Tier I				
<u>(to risk-weighted assets)</u>				
Actual	\$ 58,785,380	8.60 %	\$ 53,675,439	8.23 %
For capital adequacy purposes	30,754,294	4.50	29,341,036	4.50
To be well capitalized	44,422,869	6.50	42,381,496	6.50
Tier I capital				
<u>(to risk-weighted assets)</u>				
Actual	\$ 64,693,336	9.47 %	\$ 59,490,667	9.12 %
For capital adequacy purposes	41,005,725	6.00	39,121,381	6.00
To be well capitalized	54,674,300	8.00	52,161,842	8.00
Tier I capital				
<u>(to average assets)</u>				
Actual	\$ 64,693,336	7.67 %	\$ 59,490,667	7.35 %
For capital adequacy purposes	33,756,857	4.00	32,364,684	4.00
To be well capitalized	42,196,071	5.00	40,455,855	5.00

16. REGULATORY CAPITAL (Continued)

The Bank's actual capital ratios are presented in the following table which shows the Bank met all regulatory capital requirements:

	2018		2017	
	Amount	Ratio	Amount	Ratio
Total capital				
<u>(to risk-weighted assets)</u>				
Actual	\$ 78,784,431	11.47 %	\$ 73,198,801	11.25 %
For capital adequacy purposes	54,946,308	8.00	52,070,175	8.00
To be well capitalized	68,682,885	10.00	65,087,718	10.00
Common Equity Tier I				
<u>(to risk-weighted assets)</u>				
Actual	\$ 71,948,760	10.48 %	\$ 66,939,931	10.28 %
For capital adequacy purposes	30,907,298	4.50	29,289,473	4.50
To be well capitalized	44,643,875	6.50	42,307,017	6.50
Tier I capital				
<u>(to risk-weighted assets)</u>				
Actual	\$ 71,948,760	10.48 %	\$ 66,939,931	10.28 %
For capital adequacy purposes	41,209,731	6.00	39,052,631	6.00
To be well capitalized	54,946,308	8.00	52,070,175	8.00
Tier I capital				
<u>(to average assets)</u>				
Actual	\$ 71,948,760	8.55 %	\$ 66,939,931	8.29 %
For capital adequacy purposes	27,473,154	4.00	26,035,087	4.00
To be well capitalized	34,341,443	5.00	32,543,859	5.00

17. FAIR VALUE MEASUREMENTS

The following disclosures show the hierarchical disclosure framework associated with the level of pricing observations utilized in measuring assets and liabilities at fair value. The three broad levels of pricing observations are as follows:

- Level I: Quoted prices are available in active markets for identical assets or liabilities as of the reported date.
- Level II: Pricing inputs are other than the quoted prices in active markets, which are either directly or indirectly observable as of the reported date. The nature of these assets and liabilities includes items for which quoted prices are available but traded less frequently and items that are fair-valued using other financial instruments, the parameters of which can be directly observed.
- Level III: Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

This hierarchy requires the use of observable market data when available.

17. FAIR VALUE MEASUREMENTS (Continued)

The following tables present the assets reported on the Consolidated Balance Sheet at their fair value on a recurring basis as of December 31, 2018 and 2017, by level within the fair value hierarchy. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

	December 31, 2018			
	Level I	Level II	Level III	Total
Assets:				
U.S. treasury securities	\$ -	\$ 6,693,710	\$ -	\$ 6,693,710
U.S. government agency securities	-	35,771,223	-	35,771,223
Obligations of states and political subdivisions	-	46,175,084	-	46,175,084
Corporate securities	-	19,058,081	-	19,058,081
Mortgage-backed securities in government-sponsored entities	-	17,033,499	-	17,033,499
Equity securities	3,450,017	-	-	3,450,017
Total	<u>\$ 3,450,017</u>	<u>\$ 124,731,597</u>	<u>\$ -</u>	<u>\$ 128,181,614</u>

	December 31, 2017			
	Level I	Level II	Level III	Total
Assets:				
U.S. treasury securities	\$ -	\$ 6,745,450	\$ -	\$ 6,745,450
U.S. government agency securities	-	32,068,188	-	32,068,188
Obligations of states and political subdivisions	-	51,862,660	-	51,862,660
Corporate securities	-	23,948,356	-	23,948,356
Mortgage-backed securities in government-sponsored entities	-	21,371,123	-	21,371,123
Equity securities	4,051,862	-	-	4,051,862
Total	<u>\$ 4,051,862</u>	<u>\$ 135,995,777</u>	<u>\$ -</u>	<u>\$ 140,047,639</u>

Investment Securities

The fair market value of investment securities is equal to the available quoted market price. If no quoted market price is available, fair value is estimated using the quoted market price for similar securities. Fair value for certain held-to-maturity securities were determined utilizing discounted cash flow models, due to the absence of a current market to provide reliable market quotes for the instruments.

17. FAIR VALUE MEASUREMENTS (Continued)

Impaired Loans

The Company has measured impairment on loans generally based on the fair value of the loan's collateral. Fair value is generally determined based upon independent third-party appraisals of the properties. In some cases, management may adjust the appraised value due to the age of the appraisal, changes in market conditions, or observable deterioration of the property since the appraisal was completed. Additionally, management makes estimates about expected costs to sell the property which are also included in the net realizable value. If the fair value of the collateral dependent loan is less than the carrying amount of the loan, a specific reserve for the loan is made in the allowance for loan losses, or a charge-off is taken to reduce the loan to the fair value of the collateral (less estimated selling costs) and the loan is included in the table above as a Level III measurement.

Other Real Estate Owned (OREO)

OREO is carried at the lower of the recorded investment in the property or its fair value less estimated costs of sale. In some cases, management may adjust the appraised value due to age of the appraisal, changes in market conditions, or observable deterioration of the property since the appraisal was completed. The fair value of OREO is based on the appraised value of the property, which is generally unadjusted by management and is based on comparable sales for similar properties in the same geographic region as the subject property, and is included as a Level II measurement. In this case, the property is categorized as Level III measurement, because the adjustment is considered to be an "unobservable" input. Income and expenses from operations and further declines in the fair value of the collateral subsequent to foreclosure are included in net expenses from OREO.

Mortgage Servicing Rights

Mortgage servicing rights are accounted for under the amortization method and are adjusted to the lower of aggregate cost or estimated fair value as appropriate. Fair value is estimated by projecting and discounting future cash flows. Various assumptions including future cash flows, market discount rates, expected prepayment rates, servicing costs, and other factors are used in the valuation of mortgage servicing rights.

17. FAIR VALUE MEASUREMENTS (Continued)

The following tables present the assets measured on a nonrecurring basis on the Consolidated Balance Sheet at their fair value as of December 31, 2018 and 2017, by level within the fair value hierarchy. Impaired loans that are collateral dependent are written down to fair value through the establishment of specific reserves. Techniques used to value the collateral that secure the impaired loans include: quoted market prices for identical assets classified as Level I inputs and observable inputs employed by certified appraisers for similar assets classified as Level II inputs. In cases where valuation techniques included inputs that are unobservable and are based on estimates and assumptions developed by management based on the best information available under each circumstance, the asset valuation is classified as Level III input. Other real estate owned is measured at fair value, less cost to sell at the date of foreclosure. Valuations are periodically performed by management and the assets are carried at the lower of carrying amount, or fair value less cost to sell. The fair value for mortgage servicing rights is estimated by discounting contractual cash flows and adjusting for prepayment estimates. Discount rates are based upon rates generally charged for such loans with similar characteristics.

	December 31, 2018			
	Level I	Level II	Level III	Total
Assets:				
Impaired loans	\$ -	\$ -	\$ 2,351,777	\$ 2,351,777
Mortgage servicing rights	-	-	389,223	389,223

	December 31, 2017			
	Level I	Level II	Level III	Total
Assets:				
Impaired loans	\$ -	\$ -	\$ 5,833,229	\$ 5,833,229
Other real estate owned	-	-	255,000	255,000
Mortgage servicing rights	-	-	415,533	415,533

17. FAIR VALUE MEASUREMENTS (Continued)

The following tables provide a listing of significant unobservable inputs used in the fair value measurement process for items valued utilizing Level III techniques as of December 31, 2018 and 2017.

	December 31, 2018	Fair Value	Valuation Techniques	Unobservable Inputs	Range
Impaired loans	\$	1,793,513	Discounted Cash Flows	Discount Rate	4.00% - 6.75% discount Weighted Average (5.40%)
Impaired loans	\$	558,265	Property appraisals	Management discount for property type and recent market volatility	15.00% discount Weighted Average (15.00%)
Mortgage servicing rights	\$	389,223	Discounted cash flows	Discount rate	3.81 - 4.42% discount Weighted Average (4.12%)
				Prepayment speeds	1.09 - 2.20 prepayment factor Weighted Average (1.25%)
	December 31, 2017	Fair Value	Valuation Techniques	Unobservable Inputs	Range
Impaired loans	\$	2,064,013	Discounted Cash Flows	Discount Rate	4.23% - 6.75% discount Weighted Average (5.40%)
Impaired loans	\$	3,769,216	Property appraisals	Management discount for property type and recent market volatility	15% - 24.4% discount Weighted Average (22.87%)
Other real estate owned	\$	255,000	Property appraisals	Management discount for property type and recent market volatility	0% - 50% discount Weighted Average (12.07%)
Mortgage servicing rights	\$	415,533	Discounted cash flows	Discount rate	2.89 - 3.48% discount Weighted Average (3.185%)
				Prepayment speeds	1.32 - 2.76 prepayment factor Weighted Average (1.53%)

18. FAIR VALUE DISCLOSURE OF FINANCIAL INSTRUMENTS

The estimated fair values of the Company's financial instruments not required to be measured or reported at fair value at December 31 are as follows:

	Carrying Value	Fair Value	2018 Level I	Level II	Level III
Financial assets:					
Investment securities held to maturity	7,000,000	7,095,937	-	7,095,937	-
Net loans	630,440,136	601,794,275	-	-	601,794,275
Hedges	40,384	40,384	-	40,384	-
Financial liabilities:					
Deposits	\$ 682,350,041	\$ 680,258,979	\$ 424,295,482	\$ -	\$ 255,963,497
Other borrowings	78,024,955	76,510,385	-	-	76,510,385

For cash and cash equivalents, certificates of deposits, loans held for sale, regulatory stock, bank-owned life insurance, accrued interest receivable, short-term borrowings, and accrued interest payable, the carrying value is a reasonable estimate of fair value.

	Carrying Value	Fair Value	2017 Level I	Level II	Level III
Financial assets:					
Investment securities held to maturity	6,000,000	6,162,790	-	6,162,790	-
Net loans	569,010,225	551,495,272	-	-	551,495,272
Hedges	93,989	93,989	-	93,989	-
Financial liabilities:					
Deposits	\$ 653,687,053	\$ 652,211,264	\$ 395,260,633	\$ -	\$ 256,940,459
Other borrowings	85,931,850	84,682,347	-	-	84,682,347

For cash and cash equivalents, certificates of deposits, loans held for sale, regulatory stock, bank-owned life insurance, accrued interest receivable, short-term borrowings, and accrued interest payable, the carrying value is a reasonable estimate of fair value.

19. ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table presents the changes in accumulated other comprehensive income (loss) by component net of tax for the year ended December 31, 2018 and 2017:

	Net Unrealized Gains on Investment Securities	Cash Flow Hedges	Total
Accumulated other comprehensive income, January 1, 2017	\$ 109,725	-	109,725
Other comprehensive income before reclassification	320,526	62,033	382,559
Amounts reclassified from accumulated other comprehensive loss	(66,737)	-	(66,737)
Reclassification of certain income tax effects from AOCI	83,819	-	83,819
Accumulated other comprehensive income, December 31, 2017	\$ 447,333	\$ 62,033	\$ 509,366
Other comprehensive loss before reclassification	(1,045,488)	(45,952)	(1,091,440)
Amounts reclassified from accumulated other comprehensive loss	(2,742)	-	(2,742)
Reclassification of certain income tax effects from AOCI	(716,961)	-	(716,961)
Accumulated other comprehensive income, December 31, 2018	\$ <u>(1,317,858)</u>	\$ <u>16,081</u>	\$ <u>(1,301,777)</u>

The following table presents significant amounts reclassified out of each component of accumulated other comprehensive income (loss) for the year ended December 31, 2018 and 2017:

	Amount Reclassified from Accumulated Other Comprehensive Income	Affected Line Item in the Consolidated Statement of Income where Net Income is Presented
Unrealized gains on investment securities, December 31, 2018	\$ 3,471	Investment securities gains, net
	(729)	Income taxes
	\$ <u>2,742</u>	
Unrealized gains on investment securities, December 31, 2017	\$ 101,117	Investment securities gains, net
	(34,380)	Income taxes
	\$ <u>66,737</u>	

20. SUBSEQUENT EVENTS

Management has reviewed events occurring through March 4, 2019, the date the financial statements were issued, and no subsequent events occurred requiring accrual or disclosure.

BOARD OF DIRECTORS AND OFFICERS

BOARD OF DIRECTORS OF KISH BANCORP, INC.

William P. Hayes, Chairman
James J. Lakso, Vice Chairman
Eric J. Barron, Member
William L. Dancy, Member
Spyros A. Degleris, Member
Edward A. Friedman, Member
Paul G. Howes, Member
William S. Lake, Member
Kathleen L. Rhine, Member
Paul H. Silvis, Member
Francis V. Vaughn, Member
George V. Woskob, Member

BOARD OF DIRECTORS OF KISH BANK

William P. Hayes, Chairman
James J. Lakso, Vice Chairman
William L. Dancy, Member
Spyros A. Degleris, Member
Edward A. Friedman, Member
Gregory T. Hayes, Member
Paul G. Howes, Member
William S. Lake, Member
Kathleen L. Rhine, Member
Paul H. Silvis, Member
Francis V. Vaughn, Member
George V. Woskob, Member

CENTRE COUNTY REGIONAL BOARD

A. Christian Baum, Member
Spyros A. Degleris, Member
Adam R. Fernsler, Member
Edward A. Friedman, Member
H. Amos Goodall, Jr., Member
Alan G. Hawbaker, Member
Paul G. Howes, Member
Oscar W. Johnston, Member
Michael J. Krentzman, Member
Kathleen L. Rhine, Member
Paul H. Silvis, Member
George V. Woskob, Member
Brandon M. Zlupko, Member

HUNTINGDON COUNTY REGIONAL BOARD

Arthur J. DeCamp, Member
Wayne A. Hearn, Member
Stephen C. Huston, Member
James J. Lakso, Member
Pamela F. Prosser, Member
Burgess A. Smith, Member
Delmont R. Sunderland, Member
Angela D. Thompson, Member
James A. Troha, Member
Frances V. Vaughn, Member

MIFFLIN COUNTY REGIONAL BOARD

Christina Calkins-Mazur, Member
Susan L. Cannon, Member
William L. Dancy, Member
James W. Felmlee, Member
Melinda K. Kenepp, Member
William S. Lake, Member
Harvard K. McCardle, Member

Alan J. Metzler, Member
Gary L. Oden, Member
Phyllis L. Palm, Member
John Pannizzo, Member

KISH BANK EXECUTIVE OFFICERS

William P. Hayes, Chairman and Chief Executive Officer
Gregory T. Hayes, President and Chief Operating Officer
Peter D. Collins, Executive Vice President, Chief Credit Officer
Mark J. Cvrkel, Executive Vice President, Chief Financial Officer
Robert S. McMinn, Executive Vice President, General Counsel
Richard A. Sarfert, Executive Vice President, Chief Lending Officer
James L. Shilling, Jr., Executive Vice President, Chief Business Services Officer

KISH BANK SENIOR OFFICERS

Douglas C. Baxter, Senior Vice President, Accounting and Controls Manager
Kimberly A. Bubb, Senior Vice President, Director of Digital Technology Innovation
Wade E. Curry, LUTCF, Senior Vice President, Investment Services
Terra L. Decker, Senior Vice President, Information Security and Compliance Risk Director
Kimberly M. Dove, Senior Vice President, Director of Operations
Thomas Minichiello, III, Senior Vice President, Head of Retail Banking
Amy M. Muchler, Senior Vice President, Educational Outreach and Service Quality Manager
Debra K. Weikel, Senior Vice President, Retail Credit Officer
Suzanne M. White, Senior Vice President, Human Resources and Organizational Development Director
Stanley N. Ayers, Vice President, Special Assets Manager
Kathleen M. Boop, Vice President, Personal Lines Insurance Manager
Larry E. Burger, Vice President, Commercial Relationship Manager
David A. Coble, Vice President, Branch Manager
Alta Corman-Wolf, Vice President, Residential Lender
John P. Cunningham, II, Vice President, Regional Market Manager
Jeffrey A. Gum, Vice President, Managing Director of Kish Benefits Consulting
Ann K. Guss, Vice President, Residential Lender
Allana L. Hartung, Vice President, Commercial Relationship Manager
Jeffrey T. Hayes, Vice President, Financial Advisor
Terry P. Horner, Vice President, Business Development Officer
Brad L. Huyck, Vice President, Information Technology Manager
Garen M. Jenco, Vice President, Market Research and Analytics Manager
Holly A. Johnson, Vice President, Market Manager
Marsha K. Kuhns, Vice President, Residential Lender
John Q. Massie, Vice President, Commercial Relationship Manager
Virginia A. McAdoo, Vice President, Lending Services Manager
Kristie R. McKnight, Vice President, Commercial Relationship Manager
Peter K. Ort, Vice President, Branch Manager
Denise F. Quinn, Vice President, Commercial Relationship Manager
Kevin D. Rimmey, Vice President, Commercial Relationship Manager
Melissa K. Royer, Vice President, Client Solutions Technical Advisor
Cheryl E. Shope, Vice President, Residential Lender
Glenn E. Snyder, Vice President, Facilities Manager and Security Officer
Wendy S. Strohecker, Vice President, Bank Operations Manager
N. Robert Sunday, III, Vice President, Compliance Officer
Kayelene G. Sunderland, Vice President, Wealth Management and Trust Administrator
Jeffrey D. Wilson, Vice President, CEO, Kish Agency

