CITIZENS & NORTHERN CORP
Form 10-K
February 21, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2018

OR

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

For the transition period from _____ to _____.

Commission file number: 0-16084

CITIZENS & NORTHERN CORPORATION

(Exact name of Registrant as specified in its charter)

PENNSYLVANIA	23-2451943
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

90-92 MAIN STREET, WELLSBORO, PA 16901

(Address of principal executive offices) (Zip code)

570-724-3411

(Registrant's telephone number including area code)

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

Title of Each Class	**Name of Exchange Where Registered**
Common Stock Par Value $1.00	The NASDAQ Stock Market LLC

Securities registered pursuant to section 12(g) of the Act: None

Indicate by check mark whether the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No x

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

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

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

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

Large accelerated filer ¨ Accelerated filer x Non-accelerated filer ¨ Smaller reporting company x Emerging growth company ¨

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No x

The aggregate market value of the registrant's common stock held by non-affiliates at June 30, 2018, the registrant’s most recently completed second fiscal quarter, was $308,413,394.

The number of shares of common stock outstanding at February 14, 2019 was 12,392,682.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant’s proxy statement for the annual meeting of its shareholders to be held April 18, 2019 are incorporated by reference into Parts III and IV of this report.

TABLE OF CONTENTS

	Page(s)
Part I:	
Item 1. Business	3-4
Item 1A. Risk Factors	4-6
Item 1B. Unresolved Staff Comments	6
Item 2. Properties	7
Item 3. Legal Proceedings	7
Item 4. Mine Safety Disclosure	7
Part II.	
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	8-10
Item 6. Selected Financial Data	11-12
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	13-34
Item 8. Financial Statements and Supplementary Data	35-81
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	82
Item 9A. Controls and Procedures	82
Item 9B. Other Information	83
Part III:	
Item 10. Directors, Executive Officers and Corporate Governance	83
Item 11. Executive Compensation	83
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	83
Item 13. Certain Relationships and Related Transactions, and Director Independence	83
Item 14. Principal Accountant Fees and Services	83
Part IV:	
Item 15. Exhibits and Financial Statement Schedules	84-87
Signatures	88

PART I

ITEM 1. BUSINESS

Citizens & Northern Corporation ("Corporation") is a holding company whose principal activity is community banking. The Corporation's principal office is located in Wellsboro, Pennsylvania. The largest subsidiary is Citizens & Northern Bank ("C&N Bank" or the "Bank"). The Corporation's other wholly-owned subsidiaries are Citizens & Northern Investment Corporation and Bucktail Life Insurance Company ("Bucktail"). Citizens & Northern Investment Corporation was formed in 1999 to engage in investment activities. Bucktail reinsures credit and mortgage life and accident and health insurance on behalf of C&N Bank.

On September 28, 2018, the Corporation, along with Monument Bancorp, Inc. ("Monument"), announced the signing of an Agreement and Plan of Merger. Monument is the parent company of Monument Bank, a commercial bank which operates two community bank offices and one loan production office in Bucks County, Pennsylvania. As of December 31, 2018, Monument reported total assets of $363 million. Under the terms of the Agreement and Plan of Merger, Monument will merge into the Corporation, and Monument Bank will merge into C&N Bank. In the transaction, Monument shareholders will elect to receive either 1.0144 shares of Corporation common stock or $28.10 in cash for each share of Monument common stock owned, subject to proration to ensure that, overall, 20% of the Monument shares will be converted into cash and 80% of the Monument shares will be converted into Corporation stock. The estimated total purchase consideration would be valued at approximately $42.7 million based on the closing price of the Corporation's common stock on September 27, 2018. The transaction, which has been approved by the Board of Directors of both companies, is expected to be completed during the second quarter 2019. Consummation of the Merger is subject to approval by Monument's shareholders, regulatory approvals and other customary conditions of closing.

C&N Bank is a Pennsylvania banking institution that was formed by the consolidation of Northern National Bank of Wellsboro and Citizens National Bank of Towanda on October 1, 1971. Subsequent mergers included: First National Bank of Ralston in May 1972; Sullivan County National Bank in October 1977; Farmers National Bank of Athens in January 1984; and First National Bank of East Smithfield in May 1990. In 2005, the Corporation acquired Canisteo Valley Corporation and its subsidiary, First State Bank, a New York State chartered commercial bank with offices in Canisteo and South Hornell, NY. In 2010, the First State Bank operations were merged into C&N Bank and Canisteo Valley Corporation was merged into the Corporation. On May 1, 2007, the Corporation acquired Citizens Bancorp, Inc. ("Citizens"), with banking offices in Coudersport, Emporium and Port Allegany, Pennsylvania. Citizens Trust Company, the banking subsidiary of Citizens, was merged with and into C&N Bank as part of the transaction. C&N Bank has held its current name since May 6, 1975, at which time C&N Bank changed its charter from a national bank to a Pennsylvania bank.

C&N Bank provides an extensive range of banking services, including deposit and loan products for personal and commercial customers. The Bank also maintains a trust division that provides a wide range of financial services, such as 401(k) plans, retirement planning, estate planning, estate settlements and asset management. In January 2000, C&N Bank formed a subsidiary, C&N Financial Services Corporation ("C&NFSC"). C&NFSC is a licensed insurance agency that provides insurance products to individuals and businesses. In 2001, C&NFSC added a broker-dealer division, which offers mutual funds, annuities, educational savings accounts and other investment products through registered agents. C&NFSC's operations are not significant in relation to the total operations of the Corporation.

In December 2017, C&N Bank established Northern Tier Holding LLC, to acquire, hold and dispose of real property acquired by the Bank. C&N Bank is the sole member of Northern Tier Holding LLC.

All phases of the Bank's business are competitive. The Bank primarily competes in Tioga, Bradford, Sullivan, Lycoming, Potter, Cameron and McKean counties in Pennsylvania, and Steuben and Chemung counties in New York. The Bank competes with local commercial banks headquartered in our market area as well as other commercial banks with branches in our market area. Some of the banks that have branches in our market area are larger in overall size. With respect to lending activities and attracting deposits, the Bank also competes with savings banks, savings and loan associations, insurance companies, regulated small loan companies and credit unions. Also, the Bank competes with mutual funds for deposits. C&N Bank competes with insurance companies, investment counseling firms, mutual funds and other business firms and individuals for trust, investment management, brokerage and insurance services. The Bank is generally competitive with all financial institutions in our service area with respect to interest rates paid on time and savings deposits, service charges on deposit accounts and interest rates charged on loans. The Bank serves a diverse customer base and is not economically dependent on any small group of customers or on any individual industry.

Major initiatives within the last 3 years included the following:

- in 2016, approved a new treasury stock repurchase program authorizing repurchase of up to 600,000 shares of the Corporation's common stock. Through December 31, 2017, there have been no repurchases of shares under this program.
- in March 2017, opened a loan production office in Elmira, New York.

3

- in 2018, enhanced mobile and online products including People Pay, a P2P application, added online deposit account opening capabilities and an online mortgage loan application portal.

- as described above, in September 2018 the Corporation entered into an agreement to acquire Monument Bancorp, Inc. which is expected to close in the second quarter 2019.

At December 31, 2018, C&N Bank had total assets of $1,276,158,000 total deposits of $1,041,526,000, net loans outstanding of $818,254,000 and 299 full-time equivalent employees.

Most activities of the Corporation and its subsidiaries are regulated by federal or state agencies. The primary regulatory relationships are described as follows:

- The Corporation is a bank holding company formed under the provisions of Section 3 of the Federal Reserve Act. The Corporation is under the direct supervision of the Federal Reserve and must comply with the reporting requirements of the Federal Bank Holding Company Act.

- C&N Bank is a state-chartered, nonmember bank, supervised by the Federal Deposit Insurance Corporation and the Pennsylvania Department of Banking and Securities.

- C&NFSC is a Pennsylvania corporation. The Pennsylvania Department of Insurance regulates C&NFSC's insurance activities. Brokerage products are offered through third party networking agreements.

- Bucktail is incorporated in the state of Arizona and supervised by the Arizona Department of Insurance.

A copy of the Corporation's annual report on Form 10-K, quarterly reports on Form 10-Q, current events reports on Form 8-K, and amendments to these reports, will be furnished without charge upon written request to the Corporation's Treasurer at P.O. Box 58, Wellsboro, PA 16901. Copies of these reports will be furnished as soon as reasonably possible, after they are filed electronically with the Securities and Exchange Commission. The information is also available through the Corporation's web site at www.cnbankpa.com.

ITEM 1A. RISK FACTORS

The Corporation is subject to the many risks and uncertainties applicable to all banking companies, as well as risks specific to the Corporation's geographic locations. Although the Corporation seeks to effectively manage risks, and maintains a level of equity that exceeds the banking regulatory agencies' thresholds for being considered "well capitalized" (see Note 18 to the consolidated financial statements), management cannot predict the future and cannot eliminate the possibility of credit, operational or other losses. Accordingly, actual results may differ materially from management's expectations. Some of the Corporation's significant risks and uncertainties are discussed below.

Credit Risk from Lending Activities - A significant source of risk is the possibility that losses will be sustained because borrowers, guarantors and related parties may fail to perform in accordance with the terms of their loan agreements. Most of the Corporation's loans are secured, but some loans are unsecured. With respect to secured loans, the collateral securing the repayment of these loans may be insufficient to cover the obligations owed under such loans. Collateral values may be adversely affected by changes in economic, environmental and other conditions, including declines in the value of real estate, changes in interest rates, changes in monetary and fiscal policies of the federal government, wide-spread disease, terrorist activity, environmental contamination and other external events. In addition, collateral appraisals that are out of date or that do not meet industry recognized standards may create the impression that a loan is adequately collateralized when it is not. The Corporation has adopted underwriting and credit monitoring procedures and policies, including regular reviews of appraisals and borrower financial statements, that management believes are appropriate to mitigate the risk of loss. Also, as discussed further in the "Provision and Allowance for Loan Losses" section of Management's Discussion and Analysis, the Corporation attempts to estimate the amount of losses that may be inherent in the portfolio through a quarterly evaluation process that includes several members of management and that addresses specifically identified problem loans, as well as other quantitative data and qualitative factors. Such risk management and accounting policies and procedures, however, may not prevent unexpected losses that could have a material adverse effect on the Corporation's financial condition, results of operations or liquidity.

Interest Rate Risk - Business risk arising from changes in interest rates is an inherent factor in operating a banking organization. The Corporation's assets are predominantly long-term, fixed-rate loans and debt securities. Funding for these assets comes principally from shorter-term deposits and borrowed funds. Accordingly, there is an inherent risk of lower future earnings or decline in fair value of the Corporation's financial instruments when interest rates change. Significant fluctuations in interest rates could have a material adverse effect on the Corporation's financial condition, results of operations or liquidity.

Limited Geographic Diversification - The Corporation grants commercial, residential and personal loans to customers primarily in the Pennsylvania counties of Tioga, Bradford, Sullivan, Lycoming, Potter, Cameron and McKean, and in Steuben and Chemung Counties in New York State. Although the Corporation has a diversified loan portfolio, a significant portion of its debtors' ability to honor their contracts is dependent on the local economic conditions within the region. Deterioration in economic conditions could adversely affect the quality of the Corporation's loan portfolio and the demand for its products and services, and accordingly, could have a material adverse effect on the Corporation's financial condition, results of operations or liquidity.

Competition - All phases of the Corporation's business are competitive. Some competitors are much larger in total assets and capitalization than the Corporation, have greater access to capital markets and can offer a broader array of financial services. There can be no assurance that the Corporation will be able to compete effectively in its markets. Furthermore, developments increasing the nature or level of competition could have a material adverse effect on the Corporation's financial condition, results of operations or liquidity.

Growth Strategy –As described in Item 1, in September 2008, the Corporation entered into an agreement to acquire Monument Bancorp, Inc., a banking company with total assets of approximately $363 million as of December 31, 2018. Management expects the acquisition of Monument to close in the second quarter 2019. Further, management intends to continue to pursue additional acquisition opportunities. The Corporation's future financial performance will depend on its ability to execute its strategic plan and manage its future growth. Failure to execute these plans could have a material adverse effect on the Corporation's financial condition, results of operations or liquidity.

Breach of Information Security and Technology Dependence - The Corporation relies on software, communication, and information exchange on a variety of computing platforms and networks and over the Internet. Despite numerous safeguards, the Corporation cannot be certain that its systems are entirely free from vulnerability to attack or other technological difficulties or failures. The Corporation relies on the services of a variety of vendors to meet its data processing and communication needs. If information security is breached or other technology difficulties or failures occur, information may be lost or misappropriated, services and operations may be interrupted, and the Corporation could be exposed to claims from customers. Any of these results could have a material adverse effect on the Corporation's financial condition, results of operations or liquidity.

Government Regulation and Monetary Policy - The Corporation and the banking industry are subject to extensive regulation and supervision under federal and state laws and regulations. The requirements and limitations imposed by such laws and regulations limit the way the Corporation conducts its business, undertakes new investments and activities and obtains financing. These regulations are designed primarily for the protection of the deposit insurance funds and consumers and not to benefit the Corporation's shareholders. Financial institution regulation has been the subject of significant legislation in recent years and may be the subject of further significant legislation in the future, none of which is in the control of the Corporation. Significant new laws or changes in, or repeals of, existing laws could have a material adverse effect on the Corporation's financial condition, results of operations or liquidity. Further, federal monetary policy, particularly as implemented through the Federal Reserve System, significantly

affects short-term interest rates and credit conditions, and any unfavorable change in these conditions could have a material adverse effect on the Corporation's financial condition, results of operations or liquidity.

Bank Secrecy Act and Related Laws and Regulations - These laws and regulations have significant implications for all financial institutions. In recent years, they have increased due diligence requirements and reporting obligations for financial institutions, created new crimes and penalties, and required the federal banking agencies, in reviewing merger and other acquisition transactions, to consider the effectiveness of the parties to such transactions in combating money laundering activities. Even innocent noncompliance and inconsequential failure to follow the regulations could result in significant fines or other penalties, which could have a material adverse impact on the Corporation's financial condition, results of operations or liquidity.

The Federal Home Loan Bank of Pittsburgh - Through its subsidiary (C&N Bank), the Corporation is a member of the Federal Home Loan Bank of Pittsburgh (FHLB-Pittsburgh), which is one of 11 regional Federal Home Loan Banks. The Corporation has a line of credit with the FHLB-Pittsburgh that is secured by a blanket lien on its loan portfolio. Access to this line of credit is critical if a funding need arises. However, there can be no assurance that the FHLB-Pittsburgh will be able to provide funding when needed, nor can there be assurance that the FHLB-Pittsburgh will provide funds specifically to the Corporation should its financial condition deteriorate and/or regulators prevent that access. The inability to access this source of funds could have a materially adverse effect on the Corporation’s financial flexibility if alternate financing is not available at acceptable interest rates. The failure of the FHLB-Pittsburgh or the FHLB system in general, may materially impair the Corporation’s ability to meet short- and long-term liquidity needs or to meet growth plans.

The Corporation owns common stock of the FHLB-Pittsburgh to qualify for membership in the FHLB system and access services from the FHLB-Pittsburgh. The FHLB-Pittsburgh faces a variety of risks in its operations including interest rate risk, counterparty credit risk, and adverse changes in its regulatory framework. In addition, the 11 Federal Home Loan Banks are jointly liable for the consolidated obligations of the FHLB system. To the extent that one FHLB cannot meet its obligations, other FHLBs can be called upon to make required payments. Such risks affecting the FHLB-Pittsburgh could adversely impact the value of the Corporation’s investment in the common stock of the FHLB-Pittsburgh and/or affect its access to credit.

Soundness of Other Financial Institutions - In addition to the FHLB-Pittsburgh, the Corporation maintains other credit facilities that provide it with additional liquidity. These facilities include secured and unsecured borrowings from the Federal Reserve Bank and third-party commercial banks. The Corporation believes that it maintains a strong liquidity position and that it is well positioned to withstand foreseeable market conditions. However, legal agreements with counterparties typically include provisions allowing them to restrict or terminate the Corporation’s access to these credit facilities with or without advance notice and at their sole discretion.

Financial institutions are interconnected because of trading, clearing, counterparty, and other relationships. Financial market conditions have been negatively impacted in the past and such disruptions or adverse changes in the Corporation's results of operations or financial condition could, in the future, have a negative impact on available sources of liquidity. Such a situation may arise due to circumstances that are outside the Corporation’s control, such as general market disruptions or operational problems affecting the Corporation or third parties. The Corporation’s efforts to monitor and manage liquidity risk may not be successful or sufficient to deal with dramatic or unanticipated reductions in available liquidity. In such events, the Corporation’s cost of funds may increase, thereby reducing net interest income, or the Corporation may need to sell a portion of its securities and/or loan portfolio, which, depending upon market conditions, could necessitate realizing a loss.

Securities Markets – The fair value of the Corporation's available-for-sale securities, as well as the revenues the Corporation earns from its Trust and Financial Management and brokerage services, are sensitive to price fluctuations and market events.

Declines in the values of the Corporation’s securities holdings, combined with adverse changes in the expected cash flows from these investments, could result in other-than-temporary impairment charges.

For additional information regarding debt securities, see the “Securities” section of Management’s Discussion and Analysis and Note 7 to the consolidated financial statements.

The Corporation's Trust and Financial Management revenue is determined, in part, from the value of the underlying investment portfolios. Accordingly, if the values of those investment portfolios decrease, whether due to factors influencing U.S. or international securities markets, in general, or otherwise, the Corporation's revenue could be negatively impacted. In addition, the Corporation's ability to sell its brokerage services is dependent, in part, upon consumers' level of confidence in securities markets.

Mortgage Banking – Since 2009, the Corporation has originated and sold residential mortgage loans to the secondary market through the MPF Xtra program. Since 2014, the Corporation has also originated and sold residential mortgage

loans to the secondary market through the MPF Original program. Both of these programs are administered by the Federal Home Loan Banks of Pittsburgh and Chicago. At December 31, 2018, the total outstanding balance of residential mortgages sold and serviced through the two programs amounted to $171,742,000. The Corporation must strictly adhere to the MPF Xtra and MPF Original program guidelines for origination, underwriting and servicing loans, and failure to do so may result in the Corporation being forced to repurchase loans or being dropped from the program. As of December 31, 2018, the total outstanding balance of residential mortgage loans the Corporation has repurchased as a result of identified instances of noncompliance amounted to $2,146,000. If the volume of such forced repurchases of loans were to increase significantly, or if the Corporation were to be dropped from the programs, it could have a material adverse effect on the Corporation’s financial condition, results of operations or liquidity.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

The Bank owns each of its properties, except for the branch facilities located in Towanda, Williamsport and South Williamsport, PA, which are leased. All of the properties are in good condition. None of the owned properties are subject to encumbrance.

A listing of properties is as follows:

Main administrative offices:
90-92 Main Street
Wellsboro, PA 16901

or 10 Nichols Street
Wellsboro, PA 16901

Branch offices - Citizens & Northern Bank:

428 S. Main Street Athens, PA 18810	514 Main Street Laporte, PA 18626	41 Main Street Tioga, PA 16946
10 North Main Street Coudersport, PA 16915	4534 Williamson Trail Liberty, PA 16930	428 Main Street** Towanda, PA 18848
111 W. Main Street Dushore, PA 18614	1085 S. Main Street Mansfield, PA 16933	64 Elmira Street Troy, PA 16947
563 Main Street East Smithfield, PA 18817	612 James Monroe Avenue Monroeton, PA 18832	90-92 Main Street Wellsboro, PA 16901
104 W. Main Street Elkland, PA 16920	3461 Route 405 Highway Muncy, PA 17756	1510 Dewey Avenue Williamsport, PA 17701
135 East Fourth Street	100 Maple Street	130 Court Street**

Emporium, PA 15834	Port Allegany, PA 16743	Williamsport, PA 17701
230 Railroad Street Jersey Shore, PA 17740	1827 Elmira Street Sayre, PA 18840	1467 Golden Mile Road Wysox, PA 18854
102 E. Main Street Knoxville, PA 16928	2 East Mountain Avenue** South Williamsport, PA 17702	
3 Main Street Canisteo, NY 14823	6250 County Rte 64 Hornell, NY 14843	

Loan production office of Citizens & Northern Bank:

250 East Water Street

Elmira, NY 14901

Facilities management office:

13 Water Street

Wellsboro, PA 16901

** designates leased branch facility

ITEM 3. LEGAL PROCEEDINGS

The Corporation and the Bank are involved in various legal proceedings incidental to their business. Management believes the aggregate liability, if any, resulting from such pending and threatened legal proceedings will not have a material adverse effect on the Corporation's financial condition or results of operations.

ITEM 4. MINE SAFETY DISCLOSURE

Not applicable.

7

PART II

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

QUARTERLY SHARE DATA

Trades of the Corporation’s stock are executed through various brokers who maintain a market in the Corporation’s stock. The Corporation’s stock is listed on the NASDAQ Capital Market with the trading symbol CZNC. As of December 31, 2018, there were 2,160 shareholders of record of the Corporation’s common stock.

The following table sets forth the high and low sales prices of the common stock during 2018 and 2017.

	2018			2017		
	High	Low	Dividend Declared per Quarter	High	Low	Dividend Declared per Quarter
First quarter	$25.41	$22.00	$ 0.27	$26.50	$22.31	$ 0.26
Second quarter	27.72	22.64	0.27	24.40	22.00	0.26
Third quarter	28.99	25.42	0.27	25.42	22.01	0.26
Fourth quarter	28.48	23.72	0.27	26.75	23.02	0.26

Future dividend payments will depend upon maintenance of a strong financial condition, future earnings and capital and regulatory requirements. Also, the Corporation and C&N Bank are subject to restrictions on the amount of dividends that may be paid without approval of banking regulatory authorities. These restrictions are described in Note 18 to the consolidated financial statements.

Effective April 21, 2016, the Corporation’s Board of Directors approved a treasury stock repurchase program. Under this program, the Corporation is authorized to repurchase up to 600,000 shares of the Corporation's common stock or slightly less than 5% of the Corporation's issued and outstanding shares at April 19, 2016. The Board of Directors’ April 21, 2016 authorization provides that: (1) the new treasury stock repurchase program shall be effective when publicly announced and shall continue thereafter until suspended or terminated by the Board of Directors, in its sole discretion; and (2) all shares of common stock repurchased pursuant to the new program shall be held as treasury

shares and be available for use and reissuance for purposes as and when determined by the Board of Directors including, without limitation, pursuant to the Corporation's Dividend Reinvestment and Stock Purchase Plan and its equity compensation program. To date, no purchases have been made under this repurchase program.

The following table sets forth a summary of purchases by the Corporation, in the open market, of its equity securities during the fourth quarter 2018:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet be Purchased Under the Plans or Programs
October 1 - 31, 2018	0	$ -	0	600,000
November 1 - 30, 2018	0	$ -	0	600,000
December 1 - 31, 2018	0	$ -	0	600,000

PERFORMANCE GRAPH

Set forth below is a chart comparing the Corporation's cumulative return to stockholders against the cumulative return of the Russell 2000 and a Peer Group Index of similar banking organizations selected by the Corporation for the five-year period commencing December 31, 2013 and ended December 31, 2018. The index values are market-weighted dividend-reinvestment numbers, which measure the total return for investing $100.00 five years ago. This meets Securities & Exchange Commission requirements for showing dividend reinvestment share performance over a five-year period and measures the return to an investor for placing $100.00 into a group of bank stocks and reinvesting any and all dividends into the purchase of more of the same stock for which dividends were paid.

	Period Ending					
Index	12/31/13	12/31/14	12/31/15	12/31/16	12/31/17	12/31/18
Citizens & Northern Corporation	100.00	105.68	113.09	148.34	141.81	163.00
Russell 2000 Index	100.00	104.89	100.26	121.63	139.44	124.09
Peer Group	100.00	111.02	118.22	162.05	190.11	174.76

Peer Group includes all publicly traded SEC filing Commercial Banks & Thrifts within NJ, NY, OH and PA with assets between $750M and $3.5B as of 9/30/18

Source: S&P Global Market Intelligence

© 2017

EQUITY COMPENSATION PLAN INFORMATION

The following table sets forth information concerning the Stock Incentive Plan and Independent Directors Stock Incentive Plan, both of which have been approved by the Corporation's shareholders. The figures shown in the table below are as of December 31, 2018.

	Number of Securities to be Issued Upon Exercise of Outstanding Options	Weighted-average Exercise Price of Outstanding Options	Number of Securities Remaining for Future Issuance Under Equity Compen-sation Plans
Equity compensation plans approved by shareholders	165,660	$ 18.49	369,698
Equity compensation plans not approved by shareholders	0	N/A	0

More details related to the Corporation's equity compensation plans are provided in Notes 1 and 13 to the consolidated financial statements.

ITEM 6. SELECTED FINANCIAL DATA

	As of or for the Year Ended December 31,				
INCOME STATEMENT (In Thousands)	2018	2017	2016	2015	2014
Interest and fee income	$50,328	$45,863	$44,098	$44,519	$46,009
Interest expense	4,625	3,915	3,693	4,602	5,122
Net interest income	45,703	41,948	40,405	39,917	40,887
Provision for loan losses	584	801	1,221	845	476
Net interest income after provision for loan losses	45,119	41,147	39,184	39,072	40,411
Noninterest income excluding securities gains	18,597	16,153	15,511	15,478	15,420
Net gains on securities	2,033	257	1,158	2,861	1,104
Loss on prepayment of debt	0	0	0	2,573	0
Noninterest expense excluding loss on prepayment of debt	39,486	36,967	34,744	33,030	34,157
Income before income tax provision	26,263	20,590	21,109	21,808	22,778
Income tax provision	4,250	7,156	5,347	5,337	5,692
Net income	$22,013	$13,434	$15,762	$16,471	$17,086
Net income attributable to common shares	$21,903	$13,365	$15,677	$16,387	$17,009
PER COMMON SHARE:					
Basic earnings per share	$1.79	$1.10	$1.30	$1.35	$1.38
Diluted earnings per share	$1.79	$1.10	$1.30	$1.35	$1.38
Cash dividends declared per share	$1.08	$1.04	$1.04	$1.04	$1.04
Book value per common share at period-end	$16.02	$15.43	$15.36	$15.39	$15.34
Tangible book value per common share at period-end	$15.05	$14.45	$14.37	$14.41	$14.36
Weighted average common shares outstanding - basic	12,219,209	12,115,840	12,032,820	12,149,252	12,333,933
Weighted average common shares outstanding - diluted	12,257,368	12,155,136	12,063,055	12,171,084	12,355,916
END OF PERIOD BALANCES (Dollars In Thousands)					
Available-for-sale debt securities	$363,273	$355,937	$394,106	$417,904	$508,153
Marketable equity securities	950	971	971	2,386	8,654
Gross loans	827,563	815,713	751,835	704,880	630,545
Allowance for loan losses	9,309	8,856	8,473	7,889	7,336
Total assets	1,290,893	1,276,959	1,242,292	1,223,417	1,241,963
Deposits	1,033,772	1,008,449	983,843	935,615	967,989
Borrowings	48,768	70,955	64,629	92,263	78,597
Stockholders' equity	197,368	188,443	186,008	187,487	188,362
Common shares outstanding	12,319,330	12,214,525	12,113,228	12,180,623	12,279,980
AVERAGE BALANCES (In Thousands)					
Total assets	1,276,140	1,247,759	1,229,866	1,243,209	1,239,897

Earning assets	1,205,429	1,169,569	1,147,549	1,159,298	1,155,401
Gross loans	822,346	780,640	723,076	657,727	627,753
Deposits	1,027,831	990,917	970,447	968,201	965,418
Stockholders' equity	187,895	188,958	188,373	188,905	185,469

ITEM 6. SELECTED FINANCIAL DATA (Continued)

	As of or for the Year Ended December 31,				
	2018	2017	2016	2015	2014
KEY RATIOS					
Return on average assets	1.72 %	1.08 %	1.28 %	1.32 %	1.38 %
Return on average equity	11.72%	7.11 %	8.37 %	8.72 %	9.21 %
Average equity to average assets	14.72%	15.14%	15.32%	15.19%	14.96%
Net interest margin (1)	3.90 %	3.82 %	3.76 %	3.69 %	3.80 %
Efficiency (2)	60.19%	60.74%	59.22%	56.66%	57.59%
Cash dividends as a % of diluted earnings per share	60.34%	94.55%	80.00%	77.04%	75.36%
Tier 1 leverage	14.78%	14.23%	14.27%	14.31%	13.89%
Tier 1 risk-based capital	23.24%	21.95%	22.48%	23.29%	26.26%
Total risk-based capital	24.42%	23.07%	23.60%	24.40%	27.60%
Tangible common equity/tangible assets	14.50%	13.95%	14.15%	14.49%	14.34%
Nonperforming assets/total assets	1.37 %	1.47 %	1.43 %	1.31 %	1.34 %
Nonperforming loans/total loans	1.94 %	2.10 %	2.07 %	2.09 %	2.45 %
Allowance for loan losses/total loans	1.12 %	1.09 %	1.13 %	1.12 %	1.16 %
Net charge-offs/average loans	0.02 %	0.05 %	0.09 %	0.04 %	0.29 %

(1) Rates of return on tax-exempt securities and loans are calculated on a fully-taxable equivalent basis.

(2) The efficiency ratio is calculated by dividing: (a) total noninterest expense excluding losses from prepayment of debt, by (b) the sum of net interest income (including income from tax-exempt securities and loans on a fully-taxable equivalent basis) and noninterest income excluding securities gains or losses.

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

Certain statements in this section and elsewhere in this Annual Report on Form 10-K are forward-looking statements. Citizens & Northern Corporation and its wholly-owned subsidiaries (collectively, the Corporation) intend such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in the Private Securities Reform Act of 1995. Forward-looking statements, which are not historical facts, are based on certain assumptions and describe future plans, business objectives and expectations, and are generally identifiable by the use of words such as, "should", “likely”, "expect", “plan”, "anticipate", “target”, “forecast”, and “goal”. These forward-looking statements are subject to risks and uncertainties that are difficult to predict, may be beyond management’s control and could cause results to differ materially from those expressed or implied by such forward-looking statements. Factors which could have a material, adverse impact on the operations and future prospects of the Corporation include, but are not limited to, the following:

- changes in monetary and fiscal policies of the Federal Reserve Board and the U.S. Government, particularly related to changes in interest rates
- changes in general economic conditions
- legislative or regulatory changes
- downturn in demand for loan, deposit and other financial services in the Corporation’s market area
- increased competition from other banks and non-bank providers of financial services
- technological changes and increased technology-related costs
- changes in accounting principles, or the application of generally accepted accounting principles.

These risks and uncertainties should be considered in evaluating forward-looking statements and undue reliance should not be placed on such statements.

EARNINGS OVERVIEW

In 2018, net income totaled $22,013,000, or $1.79 per diluted common share as compared to $1.10 per share in 2017. The results for 2018 represented a return on average assets of 1.72% and a return on average equity of 11.72%. Annual earnings for 2018 included a net benefit of $0.13 per share from gains on a restricted equity security (Visa Class B stock) and a loss on available-for-sale debt securities. Annual 2017 earnings were negatively impacted by a reduction in the federal corporate income tax rate to 21%, effective January 1, 2018, from the 35% marginal tax rate prior to the change. In 2017, the Corporation recorded additional income tax expense of $0.18 per share related to a reduction in the carrying value of the net deferred tax asset due to the change in tax rate. Annual 2017 earnings also included a net benefit of $0.02 per share from net gains on sales of available-for-sale debt securities.

As described in more detail below, the Corporation's 2018 earnings results, as compared to 2017, include a significant benefit from the reduction in the federal income tax rate.

Excluding the effect of the income tax rate change on 2017 earnings and the after-tax impact of the gain on Visa Class B stock and net (losses) gains on available-for-sale debt securities as described above, adjusted annual 2018 net income of $20,407,000 exceeded adjusted net income for 2017 of $15,426,000 by $4,981,000 (32.3%). Pre-tax income, excluding the gain on Visa Class B stock and net (losses) gains on available-for-sale debt securities, totaled $24,230,000 in 2018, an increase of $3,897,000 (19.2%) over adjusted pre-tax income of $20,333,000 in 2017. Excluding the additional income tax provision in 2017 resulting from the change in the federal income tax rate as well as the gain on Visa Class B stock and net (losses) gains on available-for-sale debt securities, the effective tax rate was 15.8% in 2018, significantly lower than the comparative adjusted 2017 effective tax rate of 24.1%.

The following table provides a reconciliation of the Corporation's 2018 and 2017 earnings under U.S. generally accepted accounting principles (U.S. GAAP) to comparative non-U.S. GAAP results excluding the 2017 impact of the change in the federal income tax rate as well as the 2018 gain on Visa Class B stock and gains and losses on available-for-sale debt securities in both years. Management believes disclosure of 2018 and 2017 earnings results, adjusted to exclude the impact of these items, provides useful information to investors for comparative purposes.

RECONCILIATION OF NET INCOME AND

DILUTED EARNINGS PER SHARE TO NON-U.S.

GAAP MEASURE

(Dollars In Thousands, Except Per Share Data)

	Year Ended Dec. 31, 2018				Year Ended Dec. 31, 2017			
	Income Before Income Tax Provision	Income Tax Provision (1)	Net Income	Diluted Earnings per Common Share	Income Before Income Tax Provision	Income Tax Provision (1)	Net Income	Diluted Earnings per Common Share
Results as Presented Under U.S. GAAP	$26,263	$ 4,250	$22,013	$ 1.79	$20,590	$ 7,156	$13,434	$ 1.10
Additional Income Tax Provision Resulting from Change in Tax Rate		0	0			(2,159)	2,159	
Less: Gain on Restricted Equity Security	(2,321)	(487)	(1,834)		0	0	0	
Net Losses (Gains) on Available-for-sale Debt Securities	288	60	228		(257)	(90)	(167)	
Adjusted Earnings, Excluding Effect of Change in Tax Rate, Gain on Restricted Equity Security and Net Gains and Losses on Available-for-sale Debt Securities (Non-U.S. GAAP)	$24,230	$ 3,823	$20,407	$ 1.66	$20,333	$ 4,907	$15,426	$ 1.26

(1) Income tax has been allocated to the gain on restricted equity security and net losses (gains) on available-for-sale debt securities at marginal income tax rates of 21% for 2018 and 35% for 2017.

Other significant earnings-related variances were as follows:

·Net interest income was higher by $3,755,000 (9.0%) for 2018 as compared to 2017. The net interest margin was 3.90% for 2018, up from 3.82% for 2017. The average yield on earning assets was 4.28% in 2018, up from 4.16% in 2017, reflecting an increase in average yield on loans of 0.18%. Average total loans outstanding were higher by $41.7 million (5.3%) for 2018 as compared to 2017, while average total available-for-sale debt securities were lower by

$10.7 million. Average total deposits were $36.9 million (3.7%) higher in 2018 as compared to 2017. The average rate paid on interest-bearing liabilities was 0.56% in 2018, up 0.08% as compared to 2017. The average rate paid on interest-bearing deposits was up 0.16% in 2018 as compared to 2017, while the average cost of borrowed funds dropped to 1.83% from 2.54% because of the pay-off of higher-cost borrowings that matured in the latter portion of 2017.

- The provision for loan losses was $584,000 in 2018, down from $801,000 in 2017. The 2018 provision included a charge of $457,000 related to specific loans (net increase in specific allowances on loans of $326,000 and net charge-offs of $131,000) and a net $127,000 charge attributable mainly to loan growth. In comparison, the provision in 2017 included $1,023,000 related to the change in total specific allowances on impaired loans, as adjusted for net charge-offs during the period and a $101,000 increase in the unallocated portion of the allowance, with a reduction in the provision of $323,000 related to a reduction in the collectively determined allowance for loan losses.

Noninterest income increased $2,444,000 (15.1%) in 2018 over the 2017 amount. The overall increase in noninterest income included significant increases in total Trust and brokerage revenue of $660,000 (10.7%), service charges on deposit accounts of $611,000 (13.4%) and interchange revenue from debit card transactions of $325,000 (14.6%).

- Other noninterest income increased $878,000, including $438,000 from a life insurance arrangement in which benefits were split between the Corporation and heirs of a former employee, as well as increases in dividends received on Federal Home Loan Bank of Pittsburgh stock, income from state tax credits, credit card interchange fees and revenue from merchant services.

- Total noninterest expense increased $2,519,000 (6.8%) in 2018 over the 2017 amount. Salaries and wages expense increased $1,385,000 (8.8%), including the effects of annual performance-based salary adjustments for employees along with an increase in cash and stock-based incentive compensation expense and an increase in the average number of full-time equivalent employees (FTEs) to 297 in 2018 from 292 in 2017. Other expense categories with significant increases in 2018 included data processing expenses, which increased $344,000 (14.3%) and professional fees, which increased $268,000 (30.7%). Other noninterest expense increased $389,000, including an increase in donations expense of $229,000. In June 2018, the Corporation donated its Towanda banking facility to a nonprofit organization, resulting in donations expense of $250,000. The Corporation entered into a lease with the nonprofit organization and continues to provide banking services there until a new location in the Towanda market can be obtained and prepared for use.

More detailed information concerning fluctuations in the Corporation's earnings results are provided in other sections of Management's Discussion and Analysis.

CRITICAL ACCOUNTING POLICIES

The presentation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect many of the reported amounts and disclosures. Actual results could differ from these estimates.

A material estimate that is particularly susceptible to significant change is the determination of the allowance for loan losses. The Corporation maintains an allowance for loan losses that represents management's estimate of the losses inherent in the loan portfolio as of the balance sheet date and recorded as a reduction of the investment in loans. Management believes the allowance for loan losses is adequate and reasonable. Notes 1 and 8 to the consolidated financial statements provide an overview of the process management uses for evaluating and determining the allowance for loan losses, and additional discussion of the allowance for loan losses is provided in a separate section later in Management's Discussion and Analysis. Given the very subjective nature of identifying and valuing loan losses, it is likely that well-informed individuals could make materially different assumptions, and could, therefore calculate a materially different allowance value. While management uses available information to recognize losses on loans, changes in economic conditions may necessitate revisions in future years. In addition, various regulatory agencies, as an integral part of their examination process, periodically review the Corporation's allowance for loan losses. Such agencies may require the Corporation to recognize adjustments to the allowance based on their judgments of information available to them at the time of their examination.

Another material estimate is the calculation of fair values of the Corporation's debt securities. For most of the Corporation's debt securities, the Corporation receives estimated fair values of debt securities from an independent valuation service, or from brokers. In developing fair values, the valuation service and the brokers use estimates of cash flows, based on historical performance of similar instruments in similar interest rate environments. Based on experience, management is aware that estimated fair values of debt securities tend to vary among brokers and other valuation services.

As described in Note 7 to the consolidated financial statements, management evaluates securities for other-than-temporary impairment ("OTTI"). In making that evaluation, consideration is given to (1) the length of time and the extent to which the fair value has been less than cost, (2) the financial condition and near-term prospects of the issuer, and (3) whether the Corporation intends to sell the security or more likely than not will be required to sell the security before its anticipated recovery. Management's assessments of the likelihood and potential for recovery in value of securities are subjective and based on sensitive assumptions.

NET INTEREST INCOME

The Corporation's primary source of operating income is net interest income, which is equal to the difference between the amounts of interest income and interest expense. Tables I, II and III include information regarding the Corporation's net interest income in 2018 and 2017. In each of these tables, the amounts of interest income earned on tax-exempt securities and loans have been adjusted to a fully taxable-equivalent basis. Accordingly, the net interest income amounts reflected in these tables exceed the amounts presented in the consolidated financial statements. The discussion that follows is based on amounts in the tables.

The calculations of fully taxable-equivalent yields on tax-exempt loans and securities in Tables I, II and III reflect inherent tax benefit based on the Corporation's marginal federal income tax rate of 21% for 2018 and a 35% marginal federal income tax rate for 2017. In 2018, the tax benefit from tax-exempt loans and securities was reduced as a result of the change to a 21% federal income tax rate.

Fully taxable equivalent net interest income was $47,004,000 in 2018, $2,296,000 (5.1%) higher than in 2017. Interest income was $3,006,000 higher in 2018 as compared to 2017; interest expense was also higher by $710,000 in comparing the same periods. As presented in Table II, the Net Interest Margin was 3.90% in 2018 as compared to 3.82% in 2017, and the "Interest Rate Spread" (excess of average rate of return on earning assets over average cost of funds on interest-bearing liabilities) increased to 3.72% in 2018 from 3.68% in 2017.

INTEREST INCOME AND EARNING ASSETS

Interest income totaled $51,629,000 in 2018, an increase of 6.2% from 2017. Interest and fees on loans receivable increased $3,474,000, or 9.1%, to $41,491,000 in 2018 from $38,017,000 in 2017. Table III shows the increase in interest on loans includes $2,039,000 attributable to an increase in volume and $1,435,000 related to an increase in average rate. The average balance of loans receivable increased $41,706,000 (5.3%) to $822,346,000 in 2018 from $780,640,000 in 2017. The increase in average balance reflects growth in the average balance of both commercial and residential mortgage loans. The average rate on taxable loans in 2018 was 5.18% compared to 4.90% in 2017 as current rates on variable rate loans and rates on recent new loan originations have increased, consistent with increases in market interest rates. The yield on tax-exempt loans receivable decreased to 3.71% in 2018 compared to 4.52% in 2017. This decrease reflects the reduced tax benefit on tax-exempt assets as compared to taxable assets resulting from the marginal tax rate being reduced to 21% in 2018 from 35% in 2017.

Interest income on available-for-sale debt securities totaled $9,687,000 in 2018, a reduction of $683,000 from the total for 2017. As indicated in Table II, average available-for-sale debt securities (at amortized cost) totaled $360,123,000 in 2018, a decrease of $11,702,000 (3.1%) from 2017. The average yield on available-for-sale debt securities decreased to 2.69% in 2018 from 2.79% in 2017. The reduction in yield on available-for-sale debt securities includes the impact of a reduced tax benefit on tax-exempt municipal bonds from the reduction in the federal income tax rate.

Interest income from interest-bearing deposits in banks totaled $415,000 in 2018, an increase of $225,000 over the total for 2017. The most significant categories of assets within this category include interest-bearing balances held with the Federal Reserve and investments in certificates of deposit issued by other banks. The increase in interest income from interest-bearing deposits with banks includes the effects of an increase in yield to 1.90% in 2018 from 1.14% in 2017, consistent with market increases in short-term interest rates, and an increase in average balance to $21,800,000 in 2018 from $16,634,000 in 2017.

INTEREST EXPENSE AND INTEREST-BEARING LIABILITIES

Interest expense increased $710,000, or 18.1%, to $4,625,000 in 2018 from $3,915,000 in 2017. Table II shows that the overall cost of funds on interest-bearing liabilities increased to 0.56% in 2018 from 0.48% in 2017.

Total average deposit balances (interest-bearing and noninterest-bearing) increased 3.7%, to $1,027,831,000 in 2018 from $990,917,000 in 2017. Increases in the average balances of demand deposits, certificates of deposit, savings and interest checking were partially offset by reductions in money market and Individual Retirement Accounts.

Interest expense on deposits increased $1,299,000 in 2018 over 2017. The average rate on interest-bearing deposits increased to 0.48% in 2018 from 0.32% in 2017. Interest expense on certificates of deposit increased $580,000 in 2018 of which $420,000 is from an increase in average rate and $160,000 due to an increase in volume. Interest expense on interest checking accounts increased $476,000 and on money market accounts increased $194,000, in 2018 as compared to 2017, primarily due to increases in the average rates paid.

Interest expense on borrowed funds decreased $589,000 in 2018 as compared to 2017, including a reduction in interest expense on long-term borrowings partially offset by an increase in interest expense on short-term borrowings. Total average borrowed funds decreased $8,984,000 to $50,435,000 in 2018 from $59,419,000 in 2017. The average rate on total borrowed funds was 1.83% in 2018 compared to 2.54% in 2017.

Interest expense on short-term borrowings in 2018 exceeded interest expense in the same period of 2017 by $153,000 as result of a series of advances from FHLB-Pittsburgh that matured in monthly amounts of $3,000,000 through October 2018, as well as an increase in short-term interest rates. These short-term advances were originated in the third and fourth quarters of 2017 to pay off a portion of a total of $37,000,000 in long-term borrowings that matured during that time period. Average short-term borrowings totaled $25,226,000 in 2018, an increase of $1,465,000 over 2017. The weighted-average rate on short-term borrowings was 1.45% in 2018 as compared to 0.90% in 2017.

Interest expense on long-term debt decreased $742,000 in 2018 as compared to 2017, mainly from repayment of the $37 million in higher-cost borrowings (weighted-average rate of 3.65%) in the third and fourth quarters of 2017 referred to above. Borrowings are classified as long-term within the Tables based on their term at origination. The average balance of long-term borrowings in 2018 of $25,209,000 consisted mainly of FHLB advances with 13-month terms at origination and had a weighted-average rate of 2.21%. In comparison, average long-term borrowings in 2017 totaled $35,658,000, with an average rate of 3.64%.

TABLE I - ANALYSIS OF INTEREST INCOME AND EXPENSE

(In Thousands)	Years Ended December 31, 2018	2017	Increase/ (Decrease)
INTEREST INCOME			
Available-for-sale securities:			
Taxable	$ 6,189	$ 5,478	$ 711
Tax-exempt	3,498	4,892	(1,394)
Total available-for-sale securities	9,687	10,370	(683)
Dividends on marketable equity security	22	21	1
Interest-bearing due from banks	415	190	225
Loans held for sale	14	25	(11)
Loans receivable:			
Taxable	38,667	34,907	3,760
Tax-exempt	2,824	3,110	(286)
Total loans receivable	41,491	38,017	3,474
Total Interest Income	51,629	48,623	3,006
INTEREST EXPENSE			
Interest-bearing deposits:			
Interest checking	950	474	476
Money market	549	355	194
Savings	153	143	10
Certificates of deposit	1,576	996	580
Individual Retirement Accounts	473	434	39
Other time deposits	1	1	0
Total interest-bearing deposits	3,702	2,403	1,299
Borrowed funds:			
Short-term	366	213	153
Long-term	557	1,299	(742)
Total borrowed funds	923	1,512	(589)
Total Interest Expense	4,625	3,915	710
Net Interest Income	$ 47,004	$ 44,708	$ 2,296

(1) Interest income from tax-exempt securities and loans has been adjusted to a fully taxable-equivalent basis, using the Corporation's marginal federal income tax rate of 21% in 2018 and 35% in 2017.

(2) Fees on loans are included with interest on loans and amounted to $912,000 in 2018 and $883,000 in 2017.

TABLE II - ANALYSIS OF AVERAGE DAILY BALANCES AND RATES

(Dollars in Thousands)

	Year Ended 12/31/2018 Average Balance	Rate of Return/ Cost of Funds %	Year Ended 12/31/2017 Average Balance	Rate of Return/ Cost of Funds %
EARNING ASSETS				
Available-for-sale securities, at amortized cost:				
Taxable	$262,461	2.36 %	$258,079	2.12 %
Tax-exempt	97,662	3.58 %	112,746	4.34 %
Total available-for-sale securities	360,123	2.69 %	371,825	2.79 %
Marketable equity security	950	2.32 %	1,000	2.10 %
Interest-bearing due from banks	21,800	1.90 %	16,634	1.14 %
Loans held for sale	210	6.67 %	470	5.32 %
Loans receivable:				
Taxable	746,309	5.18 %	711,901	4.90 %
Tax-exempt	76,037	3.71 %	68,739	4.52 %
Total loans receivable	822,346	5.05 %	780,640	4.87 %
Total Earning Assets	1,205,429	4.28 %	1,169,569	4.16 %
Cash	17,674		17,322	
Unrealized gain/loss on securities	(8,343)		88	
Allowance for loan losses	(9,033)		(8,820)	
Bank premises and equipment	15,156		15,541	
Intangible Assets	11,952		11,957	
Other assets	43,305		42,102	
Total Assets	$1,276,140		$1,247,759	
INTEREST-BEARING LIABILITIES				
Interest-bearing deposits:				
Interest checking	$217,638	0.44 %	$209,893	0.23 %
Money market	180,835	0.30 %	191,356	0.19 %
Savings	152,889	0.10 %	143,575	0.10 %
Certificates of deposit	134,478	1.17 %	117,366	0.85 %
Individual Retirement Accounts	91,587	0.52 %	97,519	0.45 %
Other time deposits	995	0.10 %	1,014	0.10 %
Total interest-bearing deposits	778,422	0.48 %	760,723	0.32 %
Borrowed funds:				
Short-term	25,226	1.45 %	23,761	0.90 %
Long-term	25,209	2.21 %	35,658	3.64 %
Total borrowed funds	50,435	1.83 %	59,419	2.54 %
Total Interest-bearing Liabilities	828,857	0.56 %	820,142	0.48 %

Demand deposits	249,409			230,194		
Other liabilities	9,979			8,465		
Total Liabilities	1,088,245			1,058,801		
Stockholders' equity, excluding other comprehensive income/loss	194,333			188,756		
Other comprehensive income/loss	(6,438)			202		
Total Stockholders' Equity	187,895			188,958		
Total Liabilities and Stockholders' Equity	$1,276,140			$1,247,759		
Interest Rate Spread		3.72	%		3.68	%
Net Interest Income/Earning Assets		3.90	%		3.82	%
Total Deposits (Interest-bearing and Demand)	$1,027,831			$990,917		

(1) Rates of return on tax-exempt securities and loans are presented on a fully taxable-equivalent basis, using the Corporation’s marginal federal income tax rate of 21% in 2018 and 35% in 2017.

(2) Nonaccrual loans have been included with loans for the purpose of analyzing net interest earnings.

TABLE III - ANALYSIS OF VOLUME AND RATE CHANGES

(In Thousands)

	Year Ended 12/31/18 vs. 12/31/17		
	Change in Volume	Change in Rate	Total Change
EARNING ASSETS			
Available-for-sale securities:			
Taxable	$ 94	$ 617	$ 711
Tax-exempt	(605)	(789)	(1,394)
Total available-for-sale securities	(511)	(172)	(683)
Marketable equity security	(1)	2	1
Interest-bearing due from banks	71	154	225
Loans held for sale	(16)	5	(11)
Loans receivable:			
Taxable	1,731	2,029	3,760
Tax-exempt	308	(594)	(286)
Total loans receivable	2,039	1,435	3,474
Total Interest Income	1,582	1,424	3,006
INTEREST-BEARING LIABILITIES			
Interest-bearing deposits:			
Interest checking	18	458	476
Money market	(21)	215	194
Savings	9	1	10
Certificates of deposit	160	420	580
Individual Retirement Accounts	(27)	66	39
Other time deposits	0	0	0
Total interest-bearing deposits	139	1,160	1,299
Borrowed funds:			
Short-term	14	139	153
Long-term	(317)	(425)	(742)
Total borrowed funds	(303)	(286)	(589)
Total Interest Expense	(164)	874	710
Net Interest Income	$ 1,746	$ 550	$ 2,296

(1) Changes in income on tax-exempt securities and loans are presented on a fully taxable-equivalent basis, using the Corporation’s marginal federal income tax rate of 21% for 2018 and 35% in 2017.

(2) The change in interest due to both volume and rates has been allocated to volume and rate changes in proportion to the relationship of the absolute dollar amounts of the change in each.

19

NONINTEREST INCOME

The table below presents a comparison of noninterest income and excludes realized gains and losses on securities, which are discussed in the "Earnings Overview" section of Management's Discussion and Analysis.

TABLE IV - COMPARISON OF NONINTEREST INCOME

(In Thousands)

	Years Ended December 31,		$	%
	2018	2017	Change	Change
Trust and financial management revenue	$5,838	$5,399	$439	8.1
Brokerage revenue	1,018	797	221	27.7
Insurance commissions, fees and premiums	105	115	(10)	(8.7)
Service charges on deposit accounts	5,171	4,560	611	13.4
Service charges and fees	343	345	(2)	(0.6)
Interchange revenue from debit card transactions	2,546	2,221	325	14.6
Net gains from sales of loans	682	818	(136)	(16.6)
Loan servicing fees, net	347	244	103	42.2
Increase in cash surrender value of life insurance	394	379	15	3.9
Other noninterest income	2,153	1,275	878	68.9
Total noninterest income before realized gains on securities, net	$18,597	$16,153	$2,444	15.1

Total noninterest income, excluding realized gains and losses on securities, increased $2,444,000 (15.1%) in 2018 compared to 2017. Changes of significance are discussed in the narrative that follows.

Total Trust and brokerage revenue increased $660,000 (10.7%), reflecting growth in the average value of assets under management as well as increased volume of brokerage transactions.

Service charges on deposit accounts increased $611,000 (13.4%), mainly due to increased fees from the overdraft privilege program and reflecting the benefit of operational improvements to the program that were instituted early in 2018.

Interchange revenue from debit card transactions increased $325,000 (14.6%), reflecting an increase in transaction volume.

Loan servicing fees, net, increased $103,000, as the fair value of mortgage loan servicing rights decreased $83,000 in 2018 as compared to a decrease of $168,000 in 2017.

Net gains from sales of loans decreased $136,000 (16.6%), as the dollar volume of residential mortgage loans sold decreased by approximately 12% in 2018 as compared to 2017. Gains on sales of loans totaled 3.2% of the origination cost of loans sold in 2018 as compared to 3.4% in 2017.

Other noninterest income increased $878,000, including $438,000 from a life insurance arrangement in which benefits were split between the Corporation and heirs of a former employee. Income from state tax credits totaled $322,000 in 2018, an increase of $122,000 over 2017, including $154,000 recorded in 2018 related to the donation of the Towanda facility described in the Earnings Overview section of Management’s Discussion and Analysis. Also, dividends on FHLB-Pittsburgh stock increased $146,000 to $320,000 in 2018 from $174,000 in 2017, interchange revenue from credit card transactions increased $105,000 to $126,000 in 2018 from $21,000 in 2017 and revenue from merchant services increased $50,000 to $374,000 in 2018 from $324,000 in 2017.

NONINTEREST EXPENSE

Total noninterest expenses increased $2,519,000 (6.8%) in 2018 as compared to 2017. Changes of significance are discussed in the narrative that follows.

TABLE V - COMPARISON OF NONINTEREST EXPENSE

(Dollars In Thousands)

	Year to Date December 31		$	%
	2018	2017	Change	Change
Salaries and wages	$17,191	$15,806	$1,385	8.8
Pensions and other employee benefits	5,259	5,348	(89)	(1.7)
Occupancy expense, net	2,497	2,340	157	6.7
Furniture and equipment expense	1,196	1,299	(103)	(7.9)
Data processing expenses	2,750	2,406	344	14.3
Automated teller machine and interchange expense	1,304	1,284	20	1.6
Pennsylvania shares tax	1,318	1,329	(11)	(0.8)
Professional fees	1,140	872	268	30.7
Telecommunications	748	575	173	30.1
Directors' fees	706	720	(14)	(1.9)
Other noninterest expense	5,377	4,988	389	7.8
Total noninterest expense	$39,486	$36,967	$2,519	6.8

Salaries and wages expense increased $1,385,000 (8.8%), including the effects of annual performance-based salary adjustments for employees along with an increase of $672,000 in cash and stock-based incentive compensation expense and an increase in the average number of full-time equivalent employees (FTEs) to 297 in 2018 from 292 in 2017.

Other noninterest expense increased $389,000. Donations expense increased $229,000, including $250,000 from the June 2018 donation of the Towanda banking facility to a nonprofit organization. The Corporation entered into a lease with the nonprofit organization and continues to provide banking services there until a new location in the Towanda market can be obtained and prepared for use. Other significant variances within this category include an increase of $118,000 in consulting expense related to the overdraft privilege program, an increase of $104,000 in credit card processing and rewards expenses, a decrease of $247,000 in net loan collection expense and a decrease in other taxes of $118,000 from sales tax refunds received.

Data processing expenses increased $344,000 (14.3%), including increases in costs associated with document imaging and a new loan origination system implemented in 2018.

Professional fees increased $268,000 (30.7%). The increase in professional fees expense included $158,000 related to the pending acquisition of Monument, along with consulting costs related to Board governance and committee structures, implementation of new accounting standards, certification of a compliance-related software system and other corporate projects.

Telecommunications expense increased $173,000, including higher costs associated with data lines from a new telephone system.

Occupancy expense increased $157,000 (6.7%), including the effects of accelerated depreciation on the Ralston, Pennsylvania branch closed in November 2018 and an increase in repairs and maintenance expense at several locations.

Furniture and equipment expense decreased $103,000 (7.9%), mainly due to a reduction in depreciation expense related to certain items of equipment still in service that became fully depreciated in 2017 and 2018.

Pensions and other employee benefits expense decreased $89,000, reflecting a reduction of $202,000 in health insurance expense due to lower claims from the Corporation’s partially self-insured plan.

INCOME TAXES

The effective income tax rate was 16.2% of pre-tax income in 2018, down from 34.8% in 2017. The Corporation’s effective tax rates differed from the statutory rate of 21% in 2018 and 35% in 2017 principally because of the effects of tax-exempt interest income. In 2018, the Corporation realized a decrease in the income tax provision (expense) due to the Tax Cuts and Jobs Act of 2017 enacted in December 2017 that, among other things, lowered the federal corporate income tax rate to 21% effective January 1, 2018, from the 35% marginal tax rate in effect for prior periods. Because of the change in the marginal tax rate, the Corporation was required to write-down deferred tax assets at December 31, 2017. Excluding the effect of the write-down, the effective income tax rate for the year ended December 31, 2017 would have been 24.3%.

The Corporation recognizes deferred tax assets and liabilities based on differences between the financial statement carrying amounts and the tax basis of assets and liabilities. At December 31, 2018, the net deferred tax asset was $4,110,000, an increase from the balance at December 31, 2017 of $3,289,000. The most significant change in temporary difference components was a net increase of $639,000 related to unrealized losses on available-for-sale securities. At December 31, 2018, the net deferred tax asset associated with the unrealized loss was $1,145,000, while at December 31, 2017, the deferred tax asset associated with the unrealized loss was $506,000, including $843,000 recorded as an offset to the pre-tax unrealized loss within accumulated other comprehensive loss, partially offset by $337,000 charged against retained earnings

The Corporation regularly reviews deferred tax assets for recoverability based on history of earnings, expectations for future earnings and expected timing of reversals of temporary differences. Realization of deferred tax assets ultimately depends on the existence of sufficient taxable income, including taxable income in prior carryback years, as well as future taxable income. Further, the value of the benefit from realization of deferred tax assets would be impacted if income tax rates were changed from currently enacted levels.

Management believes the recorded net deferred tax asset at December 31, 2018 is fully realizable; however, if management determines the Corporation will be unable to realize all or part of the net deferred tax asset, the Corporation would adjust the deferred tax asset, which would negatively impact earnings.

Additional information related to income taxes is presented in Note 14 to the consolidated financial statements.

SECURITIES

The objectives of the Corporation’s available-for-sale debt securities (investment) portfolio are to maintain high credit quality, achieve good portfolio balance, support liquidity needs, maximize return on earning assets within reasonable risk parameters, provide an adequate amount of pledgeable securities, support local communities by purchasing securities they issue for public projects and programs, provide a means to hedge the Corporation’s interest rate risk exposure, and minimize taxes. Management continually evaluates the size and mix of securities held in the available-for-sale debt securities portfolio while considering these objectives.

Table VI shows the composition of the available-for-sale debt securities portfolio at December 31, 2018 and 2017. Comparison of the amortized cost totals of available-for-sale debt securities at each year-end presented reflects an increase of $10,408,000 to $368,725,000 at December 31, 2018 from $358,317,000 at December 31, 2017. The Corporation’s holdings of mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies increased to $244,572,000 at December 31, 2018 from $221,187,000 at December 31, 2017. Total amortized

cost of tax-exempt obligations of states and political subdivisions (municipal bonds) decreased to $84,204,000 at December 31, 2018 from $103,673,000 at December 31, 2017. The reduction in tax-exempt municipal bonds resulted from market conditions, as management identified opportunities to reinvest proceeds from maturities and sales of municipal bonds into other types of debt securities, considering the Corporation's liquidity and interest rate risk management needs and current market yields for various categories of securities.

As reflected in Table VI, the fair value of available-for-sale securities as of December 31, 2018 was $5,452,000, or 1.5%, less than the total amortized cost basis. In comparison, the aggregate unrealized loss position at December 31, 2017 was $2,380,000, or 0.7% of the total amortized cost basis. Increases in interest rates over the course of 2018 and 2017 were the major cause of the decrease in fair values of debt securities. Also, the fair values of tax-exempt municipal bonds have been negatively impacted by the reduced benefit of their tax-exempt nature resulting from the reduction in the federal corporate income tax rate. The Corporation had net realized losses from sales of available-for-sale debt securities of $288,000 in 2018, as management identified opportunities to sell selected securities with the proceeds reinvested in securities with higher yields. In comparison, net realized gains from sales of available-for-sale debt securities totaled $257,000 in 2017.

Management has reviewed the Corporation's holdings as of December 31, 2018 and concluded that unrealized losses on all of the securities in an unrealized loss position are considered temporary. Notes 6 and 7 to the consolidated financial statements provide more detail concerning the Corporation's processes for evaluating securities for other-than-temporary impairment. Management will continue to closely monitor the status of impaired securities in 2019.

TABLE VI - INVESTMENT SECURITIES

	As of December 31,			
	2018		2017	
(In Thousands)	Amortized Cost	Fair Value	Amortized Cost	Fair Value
AVAILABLE-FOR-SALE DEBT SECURITIES:				
Obligations of U.S. Government agencies	$12,331	$12,500	$8,026	$7,873
Obligations of states and political subdivisions:				
Tax-exempt	84,204	83,952	103,673	105,111
Taxable	27,618	27,699	25,431	25,573
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:				
Residential pass-through securities	54,827	53,445	52,992	52,347
Residential collateralized mortgage obligations	148,964	145,912	134,314	131,814
Commercial mortgage-backed securities	40,781	39,765	33,881	33,219
Total Available-for-Sale Debt Securities	$368,725	$363,273	$358,317	$355,937

The following table presents the contractual maturities and the weighted-average yields (calculated based on amortized cost) of investment securities as of December 31, 2018. Yields on tax-exempt securities are presented on a fully taxable-equivalent basis. Actual maturities may differ from contractual maturities because counterparties may have the right to call or prepay obligations with or without call or prepayment penalties.

(In Thousands, Except for Percentages)	Within One Year	Yield	One-Five Years	Yield	Five-Ten Years	Yield	After Ten Years	Yield	Total
AVAILABLE-FOR-SALE DEBT SECURITIES:									
Obligations of U.S. Government agencies	$0	0.00%	$0	0.00%	$2,516	3.51%	$9,815	3.45%	$12,331
Obligations of states and political subdivisions:									
Tax-exempt	20,543	4.02%	17,121	2.58%	30,201	2.33%	16,339	3.49%	84,204
Taxable	1,420	2.31%	17,366	2.73%	6,814	3.38%	2,018	4.18%	27,618
Sub-total	$21,963	3.91%	$34,487	2.66%	$39,531	2.58%	$28,172	3.53%	124,153
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:									
Residential pass-through securities									54,827
									148,964

Residential collateralized mortgage obligations	
Commercial mortgage-backed securities	40,781
Total	$368,725

The Corporation’s mortgage-backed securities and collateralized mortgage obligations have stated maturities that may differ from actual maturities due to borrowers’ ability to prepay obligations. Cash flows from such investments are dependent upon the performance of the underlying mortgage loans and are generally influenced by the level of interest rates. As rates increase, cash flows generally decrease as prepayments on the underlying mortgage loans decrease. As rates decrease, cash flows generally increase as prepayments increase due to increased refinance activity and other factors. In the table above, the entire balances and weighted-average rates for mortgage-backed securities and collateralized mortgage obligations are shown in one period.

FINANCIAL CONDITION

This section includes information regarding the Corporation’s lending activities or other significant changes or exposures that are not otherwise addressed in Management’s Discussion and Analysis. Significant changes in the average balances of the Corporation’s earning assets and interest-bearing liabilities are described in the “Net Interest Income” section of Management’s Discussion and Analysis. Other significant balance sheet items, including securities, the allowance for loan losses and stockholders’ equity, are discussed in separate sections of Management’s Discussion and Analysis. There are no significant concerns that have arisen related to the Corporation’s off-balance sheet loan commitments or outstanding letters of credit at December 31, 2018, and management does not expect the amount of purchases of bank premises and equipment to have a material, detrimental effect on the Corporation’s financial condition in 2019.

Gross loans outstanding (excluding mortgage loans held for sale) were $827,563,000 at December 31, 2018, up 1.5% from $815,713,000 at December 31, 2017. The total outstanding balances of residential mortgage segment loans at December 31, 2018 increased $9,520,000 (2.1%) as compared to December 31, 2017, and the total outstanding balances of commercial segment loans of $353,627,000 at December 31, 2018 was flat compared to December 31, 2017. Average total loans outstanding increased 5.3% in 2018 over 2017. Table VII shows the composition of the loan portfolio as of the end of the years 2014 through 2018. Over that period, the overall mix by segment has remained fairly constant, with residential mortgage loans of approximately 55% to 58% of the portfolio at each year-end, and commercial loans of 40% to 44% of the portfolio. Total loans outstanding were $197,018,000 (31.2%) higher at December 31, 2018 as compared to December 31, 2014.

While the Corporation’s lending activities are primarily concentrated in its market area, a portion of the Corporation’s commercial loan segment consists of participation loans. Participation loans represent portions of larger commercial transactions for which other institutions are the “lead banks”. Although not the lead bank, the Corporation conducts detailed underwriting and monitoring of participation loan opportunities. Participation loans are included in the “Commercial and industrial,” “Commercial loans secured by real estate”, “Political subdivisions” and “Other commercial” classes in the loan tables presented in this Form 10-K. Total participation loans outstanding amounted to $67,340,000 at December 31, 2018, up from $61,245,000 at December 31, 2017. At December 31, 2018, the balance of participation loans outstanding includes a total of $52,623,000 to businesses located outside of the Corporation’s market area, including $8,032,000 from participations in loans originated through the Corporation’s membership in a network that originates loans throughout the U.S. The Corporation’s participation loans originated through the network consist of loans to businesses that are larger than the Corporation’s typical commercial customer base. The loans originated through the network are considered “leveraged loans,” meaning the businesses typically have minimal tangible book equity and the extent of collateral available is limited, though at the time of origination the businesses have demonstrated strong cash flow performance in their recent histories. Total leveraged participation loans, including loans originated through the network and two loans originated through another lead institution, totaled $13,315,000 at December 31, 2018 and $15,328,000 at December 31, 2017.

Table VIII presents loan maturity data as of December 31, 2018. The interest rate simulation model used to prepare Table VIII classifies certain loans under different categories from the categories that appear in Table VII. Fixed-rate loans are shown in Table VIII based on their contractually scheduled principal repayments, and variable-rate loans are shown based on the date of the next change in rate. Table VIII shows that fixed-rate loans are approximately 36% of the loan portfolio. Of the 64% of the portfolio made up of variable-rate loans, a significant portion (71%) will re-price after more than one year. Variable-rate loans re-pricing after more than one year include residential and commercial real estate secured loans. The Corporation’s substantial investment in long-term, fixed-rate loans and variable-rate loans with extended periods until re-pricing is one of the concerns management attempts to address through interest rate risk management practices.

Short-term borrowings totaled $12,853,000 at December 31, 2018, down from $61,766,000 at December 31, 2017. Within this category, overnight borrowing from FHLB-Pittsburgh of $7,000,000 was down from $29,000,000 at December 31, 2017. In 2017, the Corporation paid off two higher-cost borrowings totaling $37,000,000, including an advance from FHLB-Pittsburgh of $10,000,000 with a rate of 3.81% in October and repurchase agreements totaling

$27,000,000 with a rate of 3.595% in December. Repayment of these borrowings was funded by a series short-term advances from FHLB-Pittsburgh totaling $29,000,000, including advances maturing monthly from January through October 2018 with a weighted average interest rate of 1.69% and rates ranging from 1.23% to 1.89%.

Long-term borrowings of $35,915,000 at December 31, 2018 were up from the balance at December 31, 2017 of $9,189,000. As the short-term advances described above matured through 2018, they were renewed at FHLB Pittsburgh with long-term advances, generally with 13-month terms, utilizing the FHLB's Community Lending Program (CLP). These advances have a weighted average rate of 2.40% with rates ranging from 1.83% to 2.77%.

Since 2009, the Corporation has originated and sold residential mortgage loans to the secondary market through the MPF Xtra program administered by the Federal Home Loan Banks of Pittsburgh and Chicago. Residential mortgages originated and sold through the MPF Xtra program consist primarily of conforming, prime loans sold to the Federal National Mortgage Association (Fannie Mae), a quasi-government entity. In 2014, the Corporation began to originate and sell residential mortgage loans to the secondary market through the MPF Original program, which is also administered by the Federal Home Loan Banks of Pittsburgh and Chicago. Residential mortgages originated and sold through the MPF Original program consist primarily of conforming, prime loans sold to the Federal Home Loan Bank of Pittsburgh.

For loan sales originated under the MPF Xtra and Original programs, the Corporation provides customary representations and warranties to investors that specify, among other things, that the loans have been underwritten to the standards established by the investor. The Corporation may be required to repurchase a loan and reimburse a portion of fees received or reimburse the investor for a credit loss incurred on a loan, if it is determined that the representations and warranties have not been met. Such repurchases, or reimbursements generally result from an underwriting or documentation deficiency. At December 31, 2018, the total outstanding balance of loans the Corporation has repurchased as a result of identified instances of noncompliance amounted to $2,146,000, and the corresponding total outstanding balance of repurchased loans at December 31, 2017 was $1,805,000.

At December 31, 2018, outstanding balances of loans sold and serviced through the two programs totaled $171,742,000, including loans sold through the MPF Xtra program of $96,841,000 and loans sold through the Original program of $74,901,000. At December 31, 2017, outstanding balances of loans sold and serviced through the two programs totaled $169,725,000, including loans sold through the MPF Xtra program of $107,117,000 and loans sold through the Original Program of $62,608,000. Based on the fairly limited volume of required repurchases to date, no allowance has been established for representation and warranty exposures as of December 31, 2018 and December 31, 2017.

For loans sold under the Original program, the Corporation provides a credit enhancement whereby the Corporation would assume credit losses in excess of a defined First Loss Account ("FLA") balance, up to specified amounts. The FLA is funded by the Federal Home Loan Bank of Pittsburgh based on a percentage of the outstanding balance of loans sold. At December 31, 2018, the Corporation's maximum credit enhancement obligation under the MPF Original Program was $4,157,000, and the Corporation has recorded a related allowance for credit losses in the amount of $328,000 which is included in "Accrued interest and other liabilities" in the accompanying consolidated balance sheets. At December 31, 2017, the Corporation's maximum credit enhancement obligation under the MPF Original Program was $5,742,000, and the related allowance for credit losses was $260,000. The Corporation does not provide a credit enhancement for loans sold through the Xtra program.

TABLE VII - Five-year Summary of Loans by Type

(Dollars In Thousands)

	2018	%	2017	%	2016	%	2015	%	2014	%
Residential mortgage:										
Residential mortgage loans - first liens	$372,339	45.0	$359,987	44.1	$334,102	44.4	$304,783	43.2	$291,882	46.3
Residential mortgage loans - junior liens	25,450	3.1	25,325	3.1	23,706	3.2	21,146	3.0	21,166	3.4
Home equity lines of credit	34,319	4.1	35,758	4.4	38,057	5.1	39,040	5.5	36,629	5.8
1-4 Family residential construction	24,698	3.0	26,216	3.2	24,908	3.3	21,121	3.0	16,739	2.7
Total residential mortgage	456,806	55.2	447,286	54.8	420,773	56.0	386,090	54.8	366,416	58.1
Commercial:										
Commercial loans secured by	162,611	19.6	159,266	19.5	150,468	20.0	154,779	22.0	145,878	23.1

real estate										
Commercial and industrial	91,856	11.1	88,276	10.8	83,854	11.2	75,196	10.7	50,157	8.0
Political subdivisions	53,263	6.4	59,287	7.3	38,068	5.1	40,007	5.7	17,534	2.8
Commercial construction	11,962	1.4	14,527	1.8	14,287	1.9	5,122	0.7	6,938	1.1
Loans secured by farmland	7,146	0.9	7,255	0.9	7,294	1.0	7,019	1.0	7,916	1.3
Multi-family (5 or more) residential	7,180	0.9	7,713	0.9	7,896	1.1	9,188	1.3	8,917	1.4
Agricultural loans	5,659	0.7	6,178	0.8	3,998	0.5	4,671	0.7	3,221	0.5
Other commercial loans	13,950	1.7	10,986	1.3	11,475	1.5	12,152	1.7	13,334	2.1
Total commercial	353,627	42.7	353,488	43.3	317,340	42.2	308,134	43.7	253,895	40.3
Consumer	17,130	2.1	14,939	1.8	13,722	1.8	10,656	1.5	10,234	1.6
Total	827,563	100.0	815,713	100.0	751,835	100.0	704,880	100.0	630,545	100.0
Less: allowance for loan losses	(9,309)		(8,856)		(8,473)		(7,889)		(7,336)	
Loans, net	$818,254		$806,857		$743,362		$696,991		$623,209	

TABLE VIII – LOAN MATURITY DISTRIBUTION

(In Thousands)

As of December 31, 2018

	Fixed-Rate Loans				Variable- or Adjustable-Rate Loans			
	1 Year or Less	1-5 Years	>5 Years	Total	1 Year or Less	1-5 Years	>5 Years	Total
Real Estate	$2,798	$36,741	$166,738	$206,277	$93,216	$187,545	$142,398	$423,159
Commercial	18,827	20,513	37,813	77,153	62,268	29,184	12,534	103,986
Consumer	2,398	10,571	3,976	16,945	35	0	8	43
Total	$24,023	$67,825	$208,527	$300,375	$155,519	$216,729	$154,940	$527,188

PROVISION AND ALLOWANCE FOR LOAN LOSSES

The Corporation maintains an allowance for loan losses that represents management’s estimate of the losses inherent in the loan portfolio as of the balance sheet date and recorded as a reduction of the investment in loans. Notes 1 and 8 to the consolidated financial statements provide an overview of the process management uses for evaluating and determining the allowance for loan losses.

25

While management uses available information to recognize losses on loans, changes in economic conditions may necessitate revisions in future years. In addition, various regulatory agencies, as an integral part of their examination process, periodically review the Corporation's allowance for loan losses. Such agencies may require the Corporation to recognize adjustments to the allowance based on their judgments of information available to them at the time of their examination.

The allowance for loan losses was $9,309,000 at December 31, 2018, up from $8,856,000 at December 31, 2017. Table X shows total specific allowances on impaired loans increased $326,000 to $1,605,000 at December 31, 2018 from $1,279,000 at December 31, 2017. A significant portion of the total specific allowances on impaired loans is related to two commercial loan relationships. The largest individual loan balance for which a specific allowance has been recorded is a real estate secured commercial loan with an outstanding balance of $2,515,000 and a specific allowance of $781,000 at December 31, 2018, down from an outstanding balance of $2,641,000 and a specific allowance of $919,000 at December 31, 2017. At December 31, 2018, the Corporation recorded a specific allowance of $584,000 related to commercial participation loans to one borrower that were identified as impaired in the fourth quarter 2018. The allowance for these loans was determined based on comparison of the Corporation's total outstanding exposure to the estimated, discounted value of the borrower's equipment, inventory and accounts receivable. At December 31, 2018, the outstanding balance of these loans totaled $1,265,000.

Table X also shows that the collectively determined portion of the allowance increased $127,000 across all loan classes. This increase was primarily due to loan growth in 2018 with stable aggregate net charge-off experience and minor changes to the qualitative factors used in the allowance calculation.

The provision for loan losses by segment for 2018 and 2017 is as follows:

(In Thousands)	2018	2017
Residential mortgage	$173	$251
Commercial	204	316
Consumer	207	133
Unallocated	0	101
Total	$584	$801

The provision for loan losses is further detailed as follows:

Residential mortgage segment (In thousands)	2018	2017
Increase in total specific allowance on impaired loans, adjusted for the effect of net charge-offs	$144	$300

Increase (decrease) in collectively determined portion of the allowance attributable to:		
Loan growth	94	233
Changes in historical loss experience factors	(65)	(53)
Changes in qualitative factors	0	(229)
Total provision for loan losses -		
Residential mortgage segment	$173	$251

Commercial segment (In thousands)	2018	2017
Increase in total specific allowance on impaired loans, adjusted for the effect of net charge-offs	$ 180	$ 611
Increase (decrease) in collectively determined portion of the allowance attributable to:		
Loan growth	45	183
Changes in historical loss experience factors	(21)	(268)
Changes in qualitative factors	0	(210)
Total provision for loan losses - Commercial segment	$ 204	$ 316

Consumer segment (In thousands)	2018	2017
Increase in total specific allowance on impaired loans, adjusted for the effect of net charge-offs	$133	$112
Increase (decrease) in collectively determined portion of the allowance attributable to:		
Loan growth	39	13
Changes in historical loss experience factors	34	14
Changes in qualitative factors	1	(6)
Total provision for loan losses - Consumer segment	$207	$133

For the periods shown in the tables immediately above, the provision related to increases or decreases in specific allowances on impaired loans was affected by changes in the results of management’s assessment of the amount of probable or actual (charged-off) losses associated with a small number of larger, individual loans. This line item also includes net charge-offs or recoveries from smaller loans that had not been individually evaluated for impairment prior to charge-off.

In the tables immediately above, the portion of the net change in the collectively determined allowance attributable to loan growth was determined by applying the historical loss experience and qualitative factors used in the allowance calculation at the end of the preceding period to the net increase in loans outstanding (excluding loans specifically evaluated for impairment) for the period.

The effect on the provision of changes in historical loss experience and qualitative factors, as shown in the tables above, was determined by: (1) calculating the net change in each factor used in determining the allowance at the end of the period as compared to the preceding period, and (2) applying the net change in each factor to the outstanding balance of loans at the end of the preceding period (excluding loans specifically evaluated for impairment).

The Corporation's overall net charge-off experience improved in 2018, consistent with the reductions in the provision for both the Residential mortgage and Commercial segments. While total (gross) charge-offs of $497,000 in 2018 were up from $479,000 in 2017, total recoveries of $366,000 in 2018 exceeded the 2017 total of $61,000. In 2018, the Corporation recorded a recovery of $311,000 on a commercial participation loan for which a charge-off of $595,000 had been recorded in 2016. Table XII shows the average rate of net charge-offs as a percentage of loans was 0.02% in 2018, with an annual average over the five-year period ended December 31, 2018 of 0.09%, and annual average rates ranging from a high of 0.29% in 2014 to the low of 0.02% in 2018.

Table XI presents information related to past due and impaired loans, and loans that have been modified under terms that are considered troubled debt restructurings (TDRs). Total nonperforming loans as a percentage of outstanding loans was 1.94% at December 31, 2018, down from 2.10% at December 31, 2017. Nonperforming assets as a percentage of total assets was 1.37% at December 31, 2018, also down from 1.47% at December 31, 2017. Table XI presents data at the end of each of the years ended December 31, 2014 through 2018. For the range of dates presented in Table XI, total nonperforming loans as a percentage of loans has ranged from a low of 1.94% at December 31, 2018 to a high of 2.45% at December 31, 2014, and total nonperforming assets as a percentage of assets has ranged from a low of 1.31% at December 31, 2015 to a high of 1.47% at December 31, 2017.

Total impaired loans of $9,774,000 at December 31, 2018 are up $263,000 from the corresponding amount at December 31, 2017 of $9,511,000, while foreclosed assets held for sale increased $105,000 to a balance of $1,703,000 at December 31, 2018. In the second quarter 2018, the Corporation acquired two properties that had secured a commercial loan, recording the acquisition at an estimated fair value of $2,293,000 with no gain or loss recognized. In the third quarter 2018, the Corporation recorded a loss of $53,000 based on an updated estimate of costs to sell the properties, resulting in an adjustment in their carrying value to $2,240,000 at September 30, 2018. In October 2018, one of the two commercial properties referred to above was sold for $711,000, with no gain or loss recognized.

Total nonperforming assets of $17,722,000 at December 31, 2018 are down $1,004,000 from the corresponding amount at December 31, 2017. The total amount of nonperforming assets exceeds the amount of total impaired loans because the nonperforming category includes, in addition to impaired loans, foreclosed assets held for sale and loans 90 days or more past due or in nonaccrual status with outstanding balances lower than the minimum amounts that are individually evaluated for impairment. A summary of changes in the components of nonperforming assets at December 31, 2018 as compared to December 31, 2017 is as follows:

- Nonaccrual loans totaled $13,113,000 at December 31, 2018, down from $13,404,000 at December 31, 2017. The net decrease in nonaccrual loans included the effect of a decrease in total residential mortgage loans in nonaccrual status of $467,000 to $4,556,000 at December 31, 2018.

- Total loans past due 90 days or more and still accruing interest amounted to $2,906,000 at December 31, 2018, a decrease of $818,000 from $3,724,000 at December 31, 2017. At December 31, 2018, total residential mortgage loans that were more than 90 days past due but deemed to be well secured and in the process of collection amounted to $2,003,000, down from $2,648,000 at December 31, 2017. The Corporation reviews the status of loans past due 90 days or more each quarter to determine if it is appropriate to continue to accrue interest and has determined the loans included in this category are well secured and that ultimate collection of all principal and interest is probable.

- Foreclosed assets held for sale consisted of real estate, and totaled $1,703,000 at December 31, 2018, an increase of $105,000 from $1,598,000 at December 31, 2017. At December 31, 2018, the Corporation held 6 such properties for sale, with total carrying values of $64,000 related to residential real estate, $110,000 of land and $1,529,000 related to commercial real estate. At December 31, 2017, the Corporation held 16 such properties for sale, with total carrying values of $721,000 related to residential real estate, $632,000 of land and $245,000 related to commercial real estate. The Corporation evaluates the carrying values of foreclosed assets each quarter based on the most recent market activity or appraisals for each property.

Over the period 2014-2018, each period includes a few large commercial relationships that have required significant monitoring and workout efforts. As a result, a limited number of relationships may significantly impact the total amount of allowance required on impaired loans, and may significantly impact the amount of total charge-offs reported in any one period.

Management believes it has been conservative in its decisions concerning identification of impaired loans, estimates of loss, and nonaccrual status; however, the actual losses realized from these relationships could vary materially from the allowances calculated as of December 31, 2018. Management continues to closely monitor its commercial loan relationships for possible credit losses, and will adjust its estimates of loss and decisions concerning nonaccrual status, if appropriate.

Tables IX through XII present historical data related to the allowance for loan losses.

TABLE IX - ANALYSIS OF THE ALLOWANCE FOR LOAN LOSSES

	Years Ended December 31,				
(Dollars in Thousands)	2018	2017	2016	2015	2014
Balance, beginning of year	$8,856	$8,473	$7,889	$7,336	$8,663
Charge-offs:					
Residential mortgage	(158)	(197)	(73)	(217)	(327)
Commercial	(165)	(132)	(597)	(251)	(1,715)
Consumer	(174)	(150)	(87)	(94)	(97)
Total charge-offs	(497)	(479)	(757)	(562)	(2,139)
Recoveries:					
Residential mortgage	8	19	3	1	25
Commercial	317	4	35	214	264
Consumer	41	38	82	55	47
Total recoveries	366	61	120	270	336
Net charge-offs	(131)	(418)	(637)	(292)	(1,803)
Provision for loan losses	584	801	1,221	845	476
Balance, end of period	$9,309	$8,856	$8,473	$7,889	$7,336
Net charge-offs as a % of average loans	0.02 %	0.05 %	0.09 %	0.04 %	0.29 %

TABLE X - COMPONENTS OF THE ALLOWANCE FOR LOAN LOSSES

	As of December 31,				
(In Thousands)	2018	2017	2016	2015	2014
ASC 310 - Impaired loans	$1,605	$1,279	$674	$820	$769
ASC 450 - Collective segments:					
Commercial	3,102	3,078	3,373	3,103	2,732
Residential mortgage	3,870	3,841	3,890	3,417	3,295
Consumer	233	159	138	122	145
Unallocated	499	499	398	427	395
Total Allowance	$9,309	$8,856	$8,473	$7,889	$7,336

TABLE XI - PAST DUE AND IMPAIRED LOANS, NONPERFORMING ASSETS

AND TROUBLED DEBT RESTRUCTURINGS (TDRs)

(Dollars in Thousands)

	As of December 31,				
	2018	2017	2016	2015	2014
Impaired loans with a valuation allowance	$4,851	$4,100	$3,372	$1,933	$3,241
Impaired loans without a valuation allowance	4,923	5,411	7,488	8,041	9,075
Total impaired loans	$9,774	$9,511	$10,860	$9,974	$12,316
Total loans past due 30-89 days and still accruing	$7,142	$9,449	$7,735	$7,057	$7,121
Nonperforming assets:					
Total nonaccrual loans	$13,113	$13,404	$8,736	$11,517	$12,610
Total loans past due 90 days or more and still accruing	2,906	3,724	6,838	3,229	2,843
Total nonperforming loans	16,019	17,128	15,574	14,746	15,453
Foreclosed assets held for sale (real estate)	1,703	1,598	2,180	1,260	1,189
Total nonperforming assets	$17,722	$18,726	$17,754	$16,006	$16,642
Loans subject to troubled debt restructurings (TDRs):					
Performing	$655	$636	$5,803	$1,186	$1,807
Nonperforming	2,884	3,027	2,874	5,178	5,388
Total TDRs	$3,539	$3,663	$8,677	$6,364	$7,195
Total nonperforming loans as a % of loans	1.94 %	2.10 %	2.07 %	2.09 %	2.45 %
Total nonperforming assets as a % of assets	1.37 %	1.47 %	1.43 %	1.31 %	1.34 %
Allowance for loan losses as a % of total loans	1.12 %	1.09 %	1.13 %	1.12 %	1.16 %
Allowance for loan losses as a % of nonperforming loans	58.11 %	51.70 %	54.40 %	53.50 %	47.47 %

TABLE XII - FIVE-YEAR HISTORY OF LOAN LOSSES

(Dollars in Thousands)

	2018	2017	2016	2015	2014	Average
Average gross loans	$822,346	$780,640	$723,076	$657,727	$627,753	$722,308
Year-end gross loans	827,563	815,713	751,835	704,880	630,545	$746,107
Year-end allowance for loan losses	9,309	8,856	8,473	7,889	7,336	$8,373
Year-end nonaccrual loans	13,113	13,404	8,736	11,517	12,610	$11,876
	2,906	3,724	6,838	3,229	2,843	3,908

Year-end loans 90 days or more past due and still accruing												
Net charge-offs	131		418		637		292		1,803		656	
Provision for loan losses	584		801		1,221		845		476		785	
Earnings coverage of charge-offs	210	x	56	x	37	x	85	x	14	x	38	x
Allowance coverage of charge-offs	71	x	21	x	13	x	27	x	4	x	13	x
Net charge-offs as a % of provision for loan losses	22.43	%	52.18	%	52.17	%	34.56	%	378.78	%	83.57	%
Net charge-offs as a % of average gross loans	0.02	%	0.05	%	0.09	%	0.04	%	0.29	%	0.09	%
Income before income taxes on a fully taxable equivalent basis	27,564		23,350		23,861		24,710		25,784		25,054	

CONTRACTUAL OBLIGATIONS AND OFF-BALANCE SHEET ARRANGEMENTS

The Corporation's significant fixed and determinable contractual obligations as of December 31, 2018 include repayment obligations related to time deposits and borrowed funds. Information related to maturities of time deposits is provided in Note 11 to the consolidated financial statements. Information related to maturities of borrowed funds is provided in Note 12 to the consolidated financial statements.

The Corporation's operating lease and other commitments at December 31, 2018 are immaterial. As described in more detail in Note 2 to the Consolidated Financial Statements, Accounting Standards Update 2016-02, Leases (Topic 842) changes current U.S. GAAP by requiring that lease assets and liabilities arising from operating leases be recognized on the balance sheet. In July 2018, the FASB issued ASU 2018-10 and ASU 2018-11, Codification Improvements to Topic 842, Leases, amending various aspects of Topic 842. Topic 842 will become effective for the Corporation for annual and interim periods beginning in the first quarter 2019. The Corporation estimates that the adoption of ASU 2016-02 will result in the recognition of right-of-use assets and lease liabilities for operating leases of approximately $1,200,000 on its Consolidated Balance Sheets, with no material impact to its Consolidated Statements of Income. The Corporation's significant off-balance sheet arrangements include commitments to extend credit and standby letters of credit. Off-balance sheet arrangements are described in Note 16 to the consolidated financial statements.

As described in more detail in the "Financial Condition" section of Management's Discussion and Analysis, the Corporation sells residential mortgage loans for which the Corporation provides customary representations and warranties to investors that specify, among other things, that the loans have been underwritten to the standards established by the investor. The Corporation may be required to repurchase a loan and reimburse a portion of fees received, or reimburse the investor for a credit loss incurred on a loan, if it is determined that the representations and warranties have not been met. At December 31, 2018, outstanding balances of such loans sold totaled $171,742,000.

Also, for loans sold under the MPF Original program, the Corporation provides a credit enhancement. At December 31, 2018, the Corporation's maximum credit enhancement obligation under the MPF Original Program was $4,157,000, and the Corporation has recorded a related allowance for credit losses in the amount of $328,000 which is included in "Accrued interest and other liabilities" in the accompanying consolidated balance sheets.

LIQUIDITY

Liquidity is the ability to quickly raise cash at a reasonable cost. An adequate liquidity position permits the Corporation to pay creditors, compensate for unforeseen deposit fluctuations and fund unexpected loan demand. At December 31, 2018, the Corporation maintained overnight interest-bearing deposits with the Federal Reserve Bank of

Philadelphia and other correspondent banks totaling $11,857,000.

The Corporation maintains overnight borrowing facilities with several correspondent banks that provide a source of day-to-day liquidity. Also, the Corporation maintains borrowing facilities with the Federal Home Loan Bank of Pittsburgh, secured by various mortgage loans.

The Corporation has a line of credit with the Federal Reserve Bank of Philadelphia's Discount Window. Management intends to use this line of credit as a contingency funding source. As collateral for the line, the Corporation has pledged available-for-sale securities with a carrying value of $15,710,000 at December 31, 2018.

The Corporation's outstanding, available, and total credit facilities at December 31, 2018 and 2017 are as follows:

	Outstanding		Available		Total Credit	
(In Thousands)	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
Federal Home Loan Bank of Pittsburgh	$42,915	$67,189	$318,699	$295,441	$361,614	$362,630
Federal Reserve Bank Discount Window	0	0	15,262	15,877	15,262	15,877
Other correspondent banks	0	0	45,000	45,000	45,000	45,000
Total credit facilities	$42,915	$67,189	$378,961	$356,318	$421,876	$423,507

At December 31, 2018, the Corporation's outstanding credit facilities with the Federal Home Loan Bank of Pittsburgh consisted of overnight borrowings of $7,000,000 and long-term borrowings with a total amount of $35,915,000. At December 31, 2017, the Corporation's outstanding credit facilities with the Federal Home Loan Bank of Pittsburgh consisted of overnight borrowings of $29,000,000, short-term borrowings of $29,000,000 and long-term borrowings with a total amount of $9,189,000. Additional information regarding borrowed funds is included in Note 12 to the consolidated financial statements.

Additionally, the Corporation uses “RepoSweep” arrangements to borrow funds from commercial banking customers on an overnight basis. If required to raise cash in an emergency situation, the Corporation could sell available-for-sale securities to meet its obligations. At December 31, 2018, the carrying value of available-for-sale securities in excess of amounts required to meet pledging or repurchase agreement obligations was $196,522,000.

Management believes the Corporation is well-positioned to meet its short-term and long-term obligations.

STOCKHOLDERS’ EQUITY AND CAPITAL ADEQUACY

As required by the Economic Growth, Regulatory Relief, and Consumer Protection Act (discussed further in the Recent Legislative Developments section of Management’s Discussion and Analysis), in August 2018, the Federal Reserve Board issued an interim final rule that expanded applicability of the Board’s small bank holding company policy statement. The interim final rule raised the policy statement’s asset threshold from $1 billion to $3 billion in total consolidated assets for a bank holding company or savings and loan holding company that: (1) is not engaged in significant nonbanking activities; (2) does not conduct significant off-balance sheet activities; and (3) does not have a material amount of debt or equity securities, other than trust-preferred securities, outstanding. The interim final rule provides that, if warranted for supervisory purposes, the Federal Reserve may exclude a company from the threshold increase. Management believes the Corporation meets the conditions of the Federal Reserve’s small bank holding company policy statement and is therefore excluded from consolidated capital requirements at December 31, 2018; however, C&N Bank remains subject to regulatory capital requirements administered by the federal banking agencies.

Details concerning capital ratios at December 31, 2018 and December 31, 2017 are presented in Note 18 to the consolidated financial statements. Management believes, as of December 31, 2018, that C&N Bank meets all capital adequacy requirements to which it is subject and maintains a capital conservation buffer (described in more detail in Note 18) that allows the Bank to avoid limitations on capital distributions, including dividend payments and certain discretionary bonus payments to executive officers. Further, as reflected in Note 18, the Corporation’s and C&N Bank’s capital ratios at December 31, 2018 and December 31, 2017 exceed the Corporation’s Board policy threshold levels.

Management expects C&N Bank to maintain capital levels that exceed the regulatory standards for well-capitalized institutions and the applicable capital conservation buffer, including the impact of the pending merger discussed in Note 22 to the audited, consolidated financial statements, for the next 12 months and for the foreseeable future.

Future dividend payments will depend upon maintenance of a strong financial condition, future earnings and capital and regulatory requirements. In addition, the Corporation and C&N Bank are subject to restrictions on the amount of dividends that may be paid without approval of banking regulatory authorities. These restrictions are described in

Note 18 to the consolidated financial statements. Further, although the Corporation is no longer subject to the specific consolidated capital requirements described herein, the Corporation's ability to pay dividends, repurchase stock or engage in other activities may be limited by the Federal Reserve if the Corporation fails to hold sufficient capital commensurate with its overall risk profile.

In July 2013, the federal regulatory authorities issued a new capital rule based, in part, on revisions developed by the Basel Committee on Banking Supervision to the Basel capital framework (Basel III). Generally, the new rule implemented higher minimum capital requirements, revised the definition of regulatory capital components and related calculations, added a new common equity tier 1 capital ratio, implemented a new capital conservation buffer, increased the risk weighting for past due loans and provided a transition period for several aspects of the new rule.

The current (new) capital rule provides that, in order to avoid limitations on capital distributions, including dividend payments and certain discretionary bonus payments to executive officers, a banking organization must hold a capital conservation buffer composed of common equity tier 1 capital above its minimum risk-based capital requirements. The buffer is measured relative to risk-weighted assets and is added to the minimum required risk-based capital ratios (as defined) for common equity tier 1 capital, tier 1 capital and total capital. The minimum capital conservation buffer to avoid limitations on capital distributions was 1.875% in 2018 and increased to 2.5%, effective January 1, 2019.

As fully phased in, a banking organization with a buffer greater than 2.5% would not be subject to additional limits on dividend payments or discretionary bonus payments; however, a banking organization with a buffer less than 2.5% would be subject to increasingly stringent limitations as the buffer approaches zero. The new rule also prohibits a banking organization from making dividend payments or discretionary bonus payments if its eligible retained income is negative in that quarter and its capital conservation buffer ratio was less than 2.5% as of the beginning of that quarter. Eligible net income is defined as net income for the four calendar quarters preceding the current calendar quarter, net of any distributions and associated tax effects not already reflected in net income. A summary of payout restrictions based on the capital conservation buffer is as follows:

Capital Conservation Buffer (as a % of risk-weighted assets)	Maximum Payout (as a % of eligible retained income)	
Greater than 2.5%	No payout limitation applies	
≤2.5% and >1.875%	60	%
≤1.875% and >1.25%	40	%
≤1.25% and >0.625%	20	%
≤0.625%	0	%

At December 31, 2018, C&N Bank's Capital Conservation Buffer (also determined based on the minimum total capital ratio) was 13.75%.

The Corporation's total stockholders' equity is affected by fluctuations in the fair values of available-for-sale debt securities. The difference between amortized cost and fair value of available-for-sale debt securities, net of deferred income tax, is included in Accumulated Other Comprehensive Income (Loss) within stockholders' equity. The balance in Accumulated Other Comprehensive Income (Loss) related to unrealized gains (losses) on available-for-sale debt securities, net of deferred income tax, amounted to ($4,307,000) at December 31, 2018 and ($1,566,000) at December 31, 2017. Changes in accumulated other comprehensive income (loss) are excluded from earnings and directly increase or decrease stockholders' equity. If available-for-sale debt securities are deemed to be other-than-temporarily impaired, unrealized losses are recorded as a charge against earnings, and amortized cost for the affected securities is reduced. Note 7 to the consolidated financial statements provides additional information concerning management's evaluation of available-for-sale debt securities for other-than-temporary impairment at December 31, 2018.

Stockholders' equity is also affected by the underfunded or overfunded status of defined benefit pension and postretirement plans. The balance in Accumulated Other Comprehensive Income (Loss) related to defined benefit plans, net of deferred income tax, was $137,000 at December 31, 2018 and $59,000 at December 31, 2017.

COMPREHENSIVE INCOME

Comprehensive Income is the total of (1) net income, and (2) all other changes in equity from non-stockholder sources, which are referred to as Other Comprehensive Income. Changes in the components of Accumulated Other Comprehensive Income (Loss) are included in Other Comprehensive Income, and for the Corporation, consist of changes in unrealized gains or losses on available-for-sale securities and changes in underfunded or overfunded defined benefit plans.

Comprehensive Income totaled $19,627,000 in 2018 as compared to $12,825,000 in 2017. In 2018, Comprehensive Income included: (1) Net Income of $22,013,000, which was $8,579,000 higher than in 2017; (2) Other Comprehensive Loss from unrealized losses on available-for-sale securities, net of deferred income tax, of ($2,452,000) as compared to Other Comprehensive Loss of ($617,000) in 2017; and (3) Other Comprehensive Income from defined benefit plans of $66,000 in 2018 as compared to Other Comprehensive Income of $8,000 in 2017. Fluctuations in interest rates significantly affected fair values of available-for-sale securities in 2018 and 2017, and accordingly had an effect on Other Comprehensive (Loss) in each year.

INFLATION

The Corporation is significantly affected by the Federal Reserve Board's efforts to control inflation through changes in short-term interest rates. Since September 2007, the Federal Reserve has maintained the federal funds target rate at very low levels by historical standards. Further, throughout the period of low interest rates, the Federal Reserve has injected massive amounts of liquidity into the nation's monetary system through a variety of programs. Since late 2015, the Federal Reserve has begun to move its federal funds target rate higher, in an effort to re-establish a more normalized level by historical standards, with nine separate 0.25% increases from December 2015 through December 2018, resulting in the current range of 2.25% to 2.50%. The Federal Open Market Committee (FOMC) has noted in its most recent statement that while the labor market continues to strengthen, and economic activity has been rising at a solid rate, inflation remains subdued, measured through 2017 and 2018 at levels at or just below the FOMC's 2% longer run objective. The FOMC continues to view sustained expansion of economic activity and strong labor market conditions with inflation remaining near their 2% objective as the most likely outcome. Based on this, the FOMC has indicated they will be patient with future rate adjustments to the target rate to continue to support these trends.

Although management cannot predict future changes in the rates of inflation, management monitors the impact of economic trends, including any indicators of inflationary pressures, in managing interest rate and other financial risks.

RECENT LEGISLATIVE DEVELOPMENTS

On May 24, 2018, President Trump signed into law the Economic Growth, Regulatory Relief, and Consumer Protection Act (the "Act"), which was designed to ease certain restrictions imposed by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Most of the changes made by the new Act can be grouped into five general areas: mortgage lending; certain regulatory relief for "community" banks; enhanced consumer protections in specific areas, including subjecting credit reporting agencies to additional requirements; certain regulatory relief for large financial institutions, including increasing the threshold at which institutions are classified as systemically important financial institutions (from $50 billion to $250 billion) and therefore subject to stricter oversight, and revising the rules for larger institution stress testing; and certain changes to federal securities regulations designed to promote capital formation.

As noted in the Stockholders' Equity and Capital Adequacy section of Management's Discussion and Analysis, as required by the Act, the Federal Reserve Board issued an interim final rule that expanded applicability of the Board's small bank holding company policy statement, raising the policy statement's asset threshold from $1 billion to $3 billion in total consolidated assets for a bank holding company or savings and loan holding company, subject to other conditions. Management believes the Corporation meets the conditions of the Federal Reserve's small bank holding company policy statement and is therefore excluded from consolidated capital requirements at December 31, 2018. Further, qualification as a small bank holding company allows the Corporation to file more abbreviated, and less frequent, consolidated and holding company reports with the Federal Reserve.

Also, as required by the Act, in November 2018 the Federal Reserve Board, FDIC and Office of the Comptroller of the Currency issued a joint proposal that would provide qualifying community banking organizations an option to calculate a simple leverage ratio, rather than multiple measures of capital adequacy. Under the proposal, a community banking organization would be eligible to elect the community bank leverage ratio framework if it has less than $10 billion in total consolidated assets, limited amounts of certain assets and off-balance sheet exposures, and a community bank leverage ratio greater than 9%. A qualifying community banking organization that has chosen the proposed framework would not be required to calculate the existing risk-based and leverage capital requirements. Such a community banking organization would be considered to have met the capital ratio requirements to be well capitalized for the agencies' prompt corrective action rules provided it has a community bank leverage ratio greater than 9 percent. The Corporation is in the process of evaluating whether it will adopt the optional community bank leverage ratio framework if a final rule is issued consistent with the proposal.

Some of the other key provisions of the Act as it relates to community banks and bank holding companies include, but are not limited to: (i) designating mortgages held in portfolio as "qualified mortgages" for banks with less than $10 billion in assets, subject to certain documentation and product limitations; (ii) exempting banks with less than $10 billion in assets from Volcker Rule requirements relating to proprietary trading; (iii) assisting smaller banks with obtaining stable funding by providing an exception for reciprocal deposits from FDIC restrictions on acceptance of brokered deposits; (iv) raising the eligibility for use of short-form Call Reports from $1 billion to $5 billion in assets;

and (v) clarifying definitions pertaining to high volatility commercial real estate loans (HVCRE), which require higher capital allocations, so that only loans with increased risk are subject to higher risk weightings.

The Corporation continues to analyze the changes implemented by the Act.

RECENT ACCOUNTING PRONOUNCEMENTS

See Note 2 to the consolidated financial statements for a description of recent accounting pronouncements and their recent or potential future effects on the Corporation’s financial statements.

ITEM 8. FINANCIAL STATEMENTS

CONSOLIDATED BALANCE SHEETS

(In Thousands, Except Share and Per Share Data)

	December 31, 2018	December 31, 2017
ASSETS		
Cash and due from banks:		
Noninterest-bearing	$ 20,970	$ 25,664
Interest-bearing	16,517	14,580
Total cash and due from banks	37,487	40,244
Available-for-sale debt securities, at fair value	363,273	355,937
Marketable equity security	950	971
Loans held for sale	213	765
Loans receivable	827,563	815,713
Allowance for loan losses	(9,309)	(8,856)
Loans, net	818,254	806,857
Bank-owned life insurance	19,035	20,083
Accrued interest receivable	3,968	4,048
Bank premises and equipment, net	14,592	15,432
Foreclosed assets held for sale	1,703	1,598
Deferred tax asset, net	4,110	3,289
Intangible assets - Goodwill and core deposit intangibles	11,951	11,954
Other assets	15,357	15,781
TOTAL ASSETS	$ 1,290,893	$ 1,276,959
LIABILITIES		
Deposits:		
Noninterest-bearing	$ 272,520	$ 241,214
Interest-bearing	761,252	767,235
Total deposits	1,033,772	1,008,449
Short-term borrowings	12,853	61,766
Long-term borrowings	35,915	9,189
Accrued interest and other liabilities	10,985	9,112
TOTAL LIABILITIES	1,093,525	1,088,516
STOCKHOLDERS' EQUITY		
Preferred stock, $1,000 par value; authorized 30,000 shares; $1,000 liquidation preference per share; no shares issued	0	0
Common stock, par value $1.00 per share; authorized 20,000,000 shares; issued 12,655,171; outstanding 12,319,330 at December 31, 2018 and 12,214,525 December	12,655	12,655

31, 2017		
Paid-in capital	72,602	72,035
Retained earnings	122,643	113,608
Treasury stock, at cost; 335,841 shares at December 31, 2018 and 440,646 shares at December 31, 2017	(6,362)	(8,348)
Accumulated other comprehensive loss	(4,170)	(1,507)
TOTAL STOCKHOLDERS' EQUITY	197,368	188,443
TOTAL LIABILITIES & STOCKHOLDERS' EQUITY	$ 1,290,893	$ 1,276,959

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statements of Income

(In Thousands Except Per Share Data)

	Years Ended December 31,	
	2018	2017
INTEREST INCOME		
Interest and fees on loans:		
Taxable	$ 38,667	$ 34,907
Tax-exempt	2,242	2,037
Interest on mortgages held for sale	14	25
Interest on balances with depository institutions	415	190
Income from available-for-sale debt securities:		
Taxable	6,189	5,478
Tax-exempt	2,779	3,205
Dividends on marketable equity security	22	21
Total interest and dividend income	50,328	45,863
INTEREST EXPENSE		
Interest on deposits	3,702	2,403
Interest on short-term borrowings	366	213
Interest on long-term borrowings	557	1,299
Total interest expense	4,625	3,915
Net interest income	45,703	41,948
Provision for loan losses	584	801
Net interest income after provision for loan losses	45,119	41,147
NONINTEREST INCOME		
Trust and financial management revenue	5,838	5,399
Brokerage revenue	1,018	797
Insurance commissions, fees and premiums	105	115
Service charges on deposit accounts	5,171	4,560
Service charges and fees	343	345
Interchange revenue from debit card transactions	2,546	2,221
Net gains from sale of loans	682	818
Loan servicing fees, net	347	244
Increase in cash surrender value of life insurance	394	379
Other noninterest income	2,153	1,275
Sub-total	18,597	16,153
Gain on restricted equity security	2,321	0
Realized (losses) gains on available-for-sale debt securities, net	(288)	257
Total noninterest income	20,630	16,410
NONINTEREST EXPENSE		
Salaries and wages	17,191	15,806
Pensions and other employee benefits	5,259	5,348
Occupancy expense, net	2,497	2,340

Furniture and equipment expense	1,196	1,299
Data processing expenses	2,750	2,406
Automated teller machine and interchange expense	1,304	1,284
Pennsylvania shares tax	1,318	1,329
Professional fees	1,140	872
Telecommunications	748	575
Directors' fees	706	720
Other noninterest expense	5,377	4,988
Total noninterest expense	39,486	36,967
Income before income tax provision	26,263	20,590
Income tax provision	4,250	7,156
NET INCOME	$ 22,013	$ 13,434
EARNINGS PER COMMON SHARE - BASIC	$ 1.79	$ 1.10
EARNINGS PER COMMON SHARE - DILUTED	$ 1.79	$ 1.10

The accompanying notes are an integral part of consolidated financial statements.

Consolidated Statements of Comprehensive Income

(In Thousands)

	Years Ended December 31,	
	2018	2017
Net income	$ 22,013	$ 13,434
Unrealized losses on available-for-sale securities:		
Unrealized holding losses on available-for-sale securities	(3,392)	(691)
Reclassification adjustment for losses (gains) realized in income	288	(257)
Other comprehensive loss on available-for-sale securities	(3,104)	(948)
Unfunded pension and postretirement obligations:		
Changes from plan amendments and actuarial gains and losses included in accumulated other comprehensive gain	101	36
Amortization of prior service cost and net actuarial loss included in net periodic benefit cost	(17)	(24)
Other comprehensive gain on unfunded retirement obligations	84	12
Other comprehensive loss before income tax	(3,020)	(936)
Income tax related to other comprehensive loss	634	327
Net other comprehensive loss	(2,386)	(609)
Comprehensive income	$ 19,627	$ 12,825

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated Statements of Changes in Stockholders' Equity

(In Thousands Except Share and Per Share Data)

	Common Shares	Treasury Shares	Common Stock	Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Total
Balance, January 1, 2017	12,655,171	541,943	$12,655	$71,730	$112,790	$ (898)	$(10,269)	$186,008
Net income					13,434			13,434
Other comprehensive loss, net						(609)		(609)
Cash dividends declared on common stock, $1.04 per share					(12,616)			(12,616)
Shares issued for dividend reinvestment plan		(63,066)		276			1,195	1,471
Shares issued from treasury and redeemed related to exercise of stock options		(11,780)		(100)			227	127
Restricted stock granted		(30,782)		(583)			583	0
Forfeiture of restricted stock		4,406		85			(85)	0
Stock-based compensation expense				627				627
Other stock-based expense		(75)					1	1
Balance, December 31, 2017	12,655,171	440,646	12,655	72,035	113,608	(1,507)	(8,348)	188,443
Impact of change in enacted income tax rate (a)					325	(325)		0
Impact of change in method of premium amortization of callable debt securities (b)					(26)	26		0
Impact of change in method of accounting for marketable equity security (c)					(22)	22		0

Net income					22,013			22,013
Other comprehensive loss, net						(2,386)		(2,386)
Cash dividends declared on common stock, $1.08 per share					(13,255)			(13,255)
Shares issued for dividend reinvestment plan		(59,330)		385			1,124	1,509
Shares issued from treasury and redeemed related to exercise of stock options		(18,862)		(166)			355	189
Restricted stock granted		(34,552)		(655)			655	0
Forfeiture of restricted stock		7,939		148			(148)	0
Stock-based compensation expense				855				855
Balance, December 31, 2018	12,655,171	335,841	$12,655	$72,602	$122,643	$ (4,170)	$(6,362)	$197,368

(a) As described in more detail in the Recent Accounting Pronouncements - Adopted section of Note 2, this reclassification resulted from adoption of Accounting Standards Update (ASU) 2018-02, Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, effective January 1, 2018.

(b) As described in more detail in the Recent Accounting Pronouncements - Adopted section of Note 2, this reclassification resulted from adoption of ASU 2017-08, Receivables – Nonrefundable Fees and Other Costs (Subtopic 310-20), effective January 1, 2018.

(c) As described in more detail in the Recent Accounting Pronouncements - Adopted section of Note 2, this reclassification resulted from adoption of ASU 2016-01, Recognition and Measurement of Financial Assets and Liabilities, effective January 1, 2018.

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In Thousands)

	Years Ended December 31,	
	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$ 22,013	$ 13,434
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for loan losses	584	801
Realized losses (gains) on available-for-sale securities, net	288	(257)
Unrealized loss on marketable equity security	21	0
Gain on restricted equity security	(2,321)	0
Depreciation and amortization expense	1,754	1,639
Accretion and amortization on securities, net	1,044	1,157
Increase in cash surrender value of life insurance	(394)	(379)
Stock-based compensation and other expense	855	628
Deferred income taxes	(187)	2,155
Decrease in fair value of servicing rights	83	168
Gains on sales of loans, net	(682)	(818)
Origination of loans held for sale	(21,014)	(25,129)
Proceeds from sales of loans held for sale	22,060	25,119
Increase in accrued interest receivable and other assets	(413)	(595)
Increase in accrued interest payable and other liabilities	1,957	1,312
Other	244	139
Net Cash Provided by Operating Activities	25,892	19,374
CASH FLOWS FROM INVESTING ACTIVITIES:		
Proceeds from maturities of certificates of deposit	2,280	348
Purchase of certificates of deposit	(3,700)	(100)
Proceeds from sales of available-for-sale securities	25,860	24,118
Proceeds from calls and maturities of available-for-sale securities	52,383	63,679
Purchase of available-for-sale securities	(90,015)	(51,476)
Redemption of Federal Home Loan Bank of Pittsburgh stock	6,145	7,288
Purchase of Federal Home Loan Bank of Pittsburgh stock	(5,301)	(9,418)
Net increase in loans	(14,492)	(65,225)
Proceeds from sale of restricted equity security	2,321	0
Proceeds from bank owned life insurance	1,442	0
Purchase of premises and equipment	(1,167)	(1,697)
Proceeds from sale of foreclosed assets	2,418	1,387
Other	178	191
Net Cash Used in Investing Activities	(21,648)	(30,905)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Net increase in deposits	25,323	24,606
Net (decrease) increase in short-term borrowings	(48,913)	35,591
Proceeds from long-term borrowings	33,000	8,000

Repayments of long-term borrowings	(6,274)	(37,265)
Sale of treasury stock	189	127
Common dividends paid	(11,746)	(11,145)
Net Cash (Used in) Provided by Financing Activities	(8,421)	19,914
(DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(4,177)	8,383
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	37,004	28,621
CASH AND CASH EQUIVALENTS, END OF YEAR	$ 32,827	$ 37,004
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:		
Assets acquired through foreclosure of real estate loans	$ 2,520	$ 940
Interest paid	$ 4,529	$ 3,934
Income taxes paid	$ 4,277	$ 4,913

The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF CONSOLIDATION - The consolidated financial statements include the accounts of Citizens & Northern Corporation and its subsidiaries, Citizens & Northern Bank ("C&N Bank"), Bucktail Life Insurance Company and Citizens & Northern Investment Corporation (collectively, "Corporation"), as well as C&N Bank's wholly-owned subsidiary, C&N Financial Services Corporation. In December 2018, C&N Bank established a new entity, Northern Tier Holding LLC, for the purpose of acquiring, holding and disposing of real property acquired by the Bank. C&N Bank is the sole member of Northern Tier Holding LLC. All material intercompany balances and transactions have been eliminated in consolidation.

NATURE OF OPERATIONS - The Corporation is primarily engaged in providing a full range of banking and mortgage services to individual and corporate customers in North Central Pennsylvania and Southern New York State. Lending products include mortgage loans, commercial loans and consumer loans, as well as specialized instruments such as commercial letters-of-credit. Deposit products include various types of checking accounts, passbook and statement savings, money market accounts, interest checking accounts, Individual Retirement Accounts and certificates of deposit. The Corporation also offers non-insured "RepoSweep" accounts.

The Corporation provides Trust and Financial Management services, including administration of trusts and estates, retirement plans, and other employee benefit plans, and investment management services. The Corporation offers a variety of personal and commercial insurance products through C&N Financial Services Corporation. C&N Financial Services Corporation also offers mutual funds, annuities, educational savings accounts and other investment products through registered agents.

Management has determined that the Corporation has one reportable segment, "Community Banking." All of the Corporation's activities are interrelated, and each activity is dependent and assessed based on how each of the activities of the Corporation supports the others.

The Corporation is subject to competition from other financial institutions. It is also subject to regulation by certain federal and state agencies and undergoes periodic examination by those regulatory authorities. As a consequence, the Corporation's business is particularly susceptible to being affected by future federal and state legislation and regulations.

USE OF ESTIMATES - The financial information is presented in accordance with generally accepted accounting principles and general practice for financial institutions in the United States of America ("U.S. GAAP"). In preparing financial statements, management is required to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements. In addition, these estimates and assumptions affect revenues and expenses in the financial statements and as such, actual results could differ from those estimates.

Material estimates that are particularly susceptible to change include: (1) the allowance for loan losses, (2) fair values of debt securities based on estimates from independent valuation services or from brokers, (3) assessment of impaired securities to determine whether or not the securities are other-than-temporarily impaired, (4) valuation of deferred tax assets and (5) valuation of obligations from defined benefit plans.

INVESTMENT SECURITIES - Investment securities are accounted for as follows:

Available-for-sale debt securities - includes debt securities not classified as held-to-maturity or trading. Such securities are reported at fair value, with unrealized gains and losses excluded from earnings and reported separately through accumulated other comprehensive income (loss), net of tax. Premiums on non-amortizing available-for-sale debt securities are amortized using the level yield method to the earliest call date, while discounts on non-amortizing securities are amortized to the maturity date. Premiums and discounts on amortizing securities (mortgage-backed securities) are amortized using the level yield method over the remaining contractual life of the securities, adjusted for actual prepayments. Realized gains and losses on sales of available-for-sale securities are computed on the basis of specific identification of the adjusted cost of each security. Securities within the available-for-sale portfolio may be used as part of the Corporation's asset and liability management strategy and may be sold in response to changes in interest rate risk, prepayment risk or other factors.

Other-than-temporary impairment – Credit-related declines in the fair value of available-for-sale debt securities that are deemed to be other-than-temporary are reflected in earnings as realized losses. In estimating other-than-temporary impairment (OTTI) losses, management considers (1) the length of time and the extent to which the fair value has been less than cost, (2) the financial condition and near-term prospects of the issuer, (3) the intent and ability of the Corporation to retain its investment in the issuer for a period of time sufficient to allow for any anticipated recovery in fair value, and (4) whether the Corporation intends to sell the security or if it is more likely than not that the Corporation will be required to sell the security before the recovery of its amortized cost basis. The credit-related impairment is recognized in earnings and is the difference between a security's amortized cost basis and the present value of expected future cash flows discounted at the security's effective interest rate. For debt securities classified as held-to-maturity, if any, the amount of noncredit-related impairment is recognized in other comprehensive income and accreted over the remaining life of the debt security as an increase in the carrying value of the security.

Marketable equity security – the marketable equity security is carried at fair value with unrealized gains and losses included in other noninterest income in the consolidated statements of income.

Restricted equity securities - Restricted equity securities consist primarily of Federal Home Loan Bank of Pittsburgh stock, and are carried at cost and evaluated for impairment. Holdings of restricted equity securities are included in Other Assets in the consolidated balance sheets, and dividends received on restricted securities are included in Other Income in the consolidated statements of income.

LOANS HELD FOR SALE - Mortgage loans held for sale are reported at the lower of cost or market, determined in the aggregate.

LOANS RECEIVABLE - Loans receivable which management has the intent and ability to hold for the foreseeable future or until maturity or payoff are stated at unpaid principal balances, less the allowance for loan losses and net deferred loan fees. Interest income is accrued on the unpaid principal balance. Loan origination and commitment fees, as well as certain direct origination costs, are deferred and amortized as a yield adjustment over the lives of the related loans using the interest method.

The loans receivable portfolio is segmented into residential mortgage, commercial and consumer loans. The residential mortgage segment includes the following classes: first and junior lien residential mortgages, home equity lines of credit and residential construction loans. The most significant classes of commercial loans are commercial loans secured by real estate, non-real estate secured commercial and industrial loans, loans to political subdivisions, commercial construction, and loans secured by farmland.

Loans are placed on nonaccrual status for all classes of loans when, in the opinion of management, collection of interest is doubtful. Any unpaid interest previously accrued on those loans is reversed from income. Interest income is not recognized on specific impaired loans unless the likelihood of further loss is remote. Interest payments received on loans for which the risk of further loss is greater than remote are applied as a reduction of the loan principal balance. Interest income on other nonaccrual loans is recognized only to the extent of interest payments received. Generally, loans are restored to accrual status when the obligation is brought current, has performed in accordance with the contractual terms for a reasonable period of time (generally six months) and the ultimate collectability of the total contractual principal and interest is no longer in doubt. The past due status of all classes of loans receivable is determined based on contractual due dates for loan payments. Also, the amortization of deferred loan fees is discontinued when a loan is placed on nonaccrual status.

ALLOWANCE FOR LOAN LOSSES - The allowance for loan losses represents management’s estimate of losses inherent in the loan portfolio as of the balance sheet date and is recorded as a reduction to loans. The allowance for loan losses is increased by the provision for loan losses, and decreased by charge-offs, net of recoveries. Loans

deemed to be uncollectible are charged against the allowance for loan losses, and subsequent recoveries, if any, are credited to the allowance. All, or part, of the principal balance of loans receivable are charged off to the allowance as soon as it is determined that the collection of all, or part, of the principal balance is highly unlikely. Non-residential consumer loans are generally charged off no later than when they are 120 days past due on a contractual basis, or earlier in the event of bankruptcy or if there is an amount deemed uncollectible.

The allowance for loan losses is maintained at a level considered adequate to provide for losses that can be reasonably anticipated. Management performs a quarterly evaluation of the adequacy of the allowance. The allowance is based on the Corporation's past loan loss experience, known and inherent risks in the portfolio, adverse situations that may affect the borrower's ability to repay, the estimated value of any underlying collateral, composition of the loan portfolio, current economic conditions and other relevant factors. This evaluation is inherently subjective as it requires material estimates that may be susceptible to significant revision as more information becomes available. In addition, various regulatory agencies, as an integral part of their examination process, periodically review the Corporation's allowance for loan losses. Such agencies may require the Corporation to recognize adjustments to the allowance based on their judgments of information available to them at the time of their examination. In the process of evaluating the loan portfolio, management also considers the Corporation's exposure to losses from unfunded loan commitments. As of December 31, 2018 and 2017, management determined that no allowance for credit losses related to unfunded loan commitments was required.

The allowance consists primarily of two major components – (1) a specific component based on a detailed assessment of certain larger loan relationships, mainly commercial purpose, determined on a loan-by-loan basis; and (2) a general component for the remainder of the portfolio based on a collective evaluation of pools of loans with similar risk characteristics. The general component is assigned to each pool of loans based on both historical net charge-off experience, and an evaluation of certain qualitative factors. An unallocated component is maintained to cover uncertainties that could affect management's estimate of probable losses. The unallocated component of the allowance reflects the margin of imprecision inherent in the underlying assumptions used in the above methodologies for estimating specific and general losses in the portfolio.

The specific component relates to loans that are classified as impaired based on a detailed assessment of certain larger loan relationships evaluated by a management committee referred to as the Watch List Committee. Specific loan relationships are identified for evaluation based on the related credit risk rating. For individual loans classified as impaired, an allowance is established when the collateral value less estimated selling costs, present value of discounted cash flows or observable market price of the impaired loan is lower than the carrying value of that loan.

The general component covers pools of loans by loan class including commercial loans not considered individually impaired, as well as smaller balance homogeneous classes of loans, such as residential real estate, home equity lines of credit and other consumer loans. Accordingly, the Corporation generally does not separately identify individual consumer and residential loans for impairment disclosures, unless such loans are subject to a restructuring agreement. The pools of loans for each loan segment are evaluated for loss exposure based upon average historical net charge-off rates, adjusted for qualitative factors. The time period used in determining the average historical net charge-off rate for each loan class is based on management's evaluation of an appropriate time period that captures an historical loss experience relevant to the current portfolio. Qualitative risk factors (described in the following paragraph) are evaluated for the impact on each of the three distinct segments (residential mortgage, commercial and consumer) within the loan portfolio. Each qualitative factor is assigned a value to reflect improving, stable or declining conditions based on management's judgment using relevant information available at the time of the evaluation. Any adjustments to the factors are supported by a narrative documentation of changes in conditions accompanying the allowance for loan losses calculation.

The qualitative factors used in the general component calculations are designed to address credit risk characteristics associated with each segment. The Corporation's credit risk associated with all of the segments is significantly impacted by these factors, which include economic conditions within its market area, the Corporation's lending policies, changes or trends in the portfolio, risk profile, competition, regulatory requirements and other factors. Further, the residential mortgage segment is significantly affected by the values of residential real estate that provide collateral for the loans. The majority of the Corporation's commercial segment loans (approximately 53% at December 31, 2018) are secured by real estate, and accordingly, the Corporation's risk for the commercial segment is significantly affected by commercial real estate values. The consumer segment includes a wide mix of loans for different purposes, primarily secured loans, including loans secured by motor vehicles, manufactured housing and other types of collateral.

Loans are classified as impaired when, based on current information and events, it is probable that the Corporation will be unable to collect the scheduled payments of principal or interest when due according to the contractual terms of the loan agreement. Factors considered by management in determining impairment include payment status, collateral value and the probability of collecting scheduled principal and interest payments when due. Loans that experience insignificant payment delays and payment shortfalls generally are not classified as impaired. Management determines the significance of payment delays and payment shortfalls on a case-by-case basis, taking into consideration all of the circumstances surrounding the loan and the borrower, including the length of the delay, the reasons for the delay, the borrower's prior payment record and the amount of shortfall in relation to the principal and interest owed. Impairment is measured on a loan-by-loan basis for commercial loans by the fair value of the collateral (if the loan is collateral dependent), by future cash flows discounted at the loan's effective rate or by the loan's

observable market price.

For commercial loans secured by real estate, estimated fair values are determined primarily through third-party appraisals. When a real estate secured loan becomes impaired, a decision is made regarding whether an updated certified appraisal of the real estate is necessary. This decision is based on various considerations, including the age of the most recent appraisal, the loan-to-value ratio based on the original appraisal and the condition of the property. Appraised values are discounted to arrive at the estimated selling price of the collateral, which is considered to be the estimated fair value. The discounts also include estimated costs to sell the property.

For commercial and industrial loans secured by non-real estate collateral, such as accounts receivable, inventory and equipment, estimated fair values are determined based on the borrower’s financial statements, inventory reports, accounts receivable aging data or equipment appraisals or invoices. Indications of value from these sources are generally discounted based on the age of the financial information or the quality of the assets.

Loans whose terms are modified are classified as troubled debt restructurings if the Corporation grants such borrowers concessions and it is deemed that those borrowers are experiencing financial difficulty. Concessions granted under a troubled debt restructuring generally involve reductions in required payments, an extension of a loan’s stated maturity date or a temporary reduction in interest rate. Loans classified as troubled debt restructurings are designated as impaired. Nonaccrual troubled debt restructurings may be restored to accrual status if the ultimate collectability of principal and interest payments under the modified terms is not in doubt, and there has been a period (generally, for at least six consecutive months) of satisfactory payment performance by the borrower either immediately before or after the restructuring.

BANK PREMISES AND EQUIPMENT - Bank premises and equipment are stated at cost less accumulated depreciation. Repair and maintenance expenditures which extend the useful lives of assets are capitalized, and other repair and maintenance expenditures are expensed as incurred. Depreciation expense is computed using the straight-line method.

IMPAIRMENT OF LONG-LIVED ASSETS - The Corporation reviews long-lived assets, such as premises and equipment and intangibles, for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. These changes in circumstances may include a significant decrease in the market value of an asset or the manner in which an asset is used. If there is an indication the carrying value of an asset may not be recoverable, future undiscounted cash flows expected to result from use of the asset are estimated. If the sum of the expected cash flows is less than the carrying value of the asset, a loss is recognized for the difference between the carrying value and fair market value of the asset.

FORECLOSED ASSETS HELD FOR SALE - Foreclosed assets held for sale consist of real estate acquired by foreclosure and are initially recorded at fair value, less estimated selling costs.

GOODWILL AND CORE DEPOSIT INTANGIBLE ASSETS - Goodwill represents the excess of the cost of acquisitions over the fair value of the net assets acquired. Goodwill is tested at least annually for impairment, or more often if events or circumstances indicate there may be impairment. Core deposit intangibles are being amortized over periods of time that represent the expected lives using a method of amortization that reflects the pattern of economic benefit. Core deposit intangibles are subject to impairment testing whenever events or changes in circumstances indicate their carrying amounts may not be recoverable.

SERVICING RIGHTS - The estimated fair value of servicing rights related to mortgage loans sold and serviced by the Corporation is recorded as an asset upon the sale of such loans. The valuation of servicing rights is adjusted quarterly, with changes in fair value included in Loan Servicing Fees, Net, in the consolidated statements of income. Significant inputs to the valuation include expected net servicing income to be received, the expected life of the underlying loans and the discount rate. The servicing rights asset is included in Other Assets in the consolidated balance sheets.

INCOME TAXES - Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amount of existing assets and liabilities and their respective tax bases given the provisions of the enacted tax laws. Deferred tax assets are reduced, if necessary, by the amount of such benefits that are not expected to be realized based upon available evidence. Tax benefits from investments in limited partnerships that have qualified for federal low-income tax credits are recognized as a reduction in the provision for income tax over the term of the investment using the effective yield method. The Corporation includes income tax penalties in the provision for income tax. The Corporation has no accrued interest related to unrecognized

tax benefits.

STOCK COMPENSATION PLANS - The Corporation's stock-based compensation policy applies to all forms of stock-based compensation including stock options and restricted stock units. All stock-based compensation is accounted for under the fair value method as required by U.S. GAAP. The expense associated with stock-based compensation is recognized over the vesting period of each individual arrangement.

The fair value of each stock option is estimated on the date of grant using the Black-Scholes-Merton option valuation model. The fair value of restricted stock is based on the current market price on the date of grant.

OFF-BALANCE SHEET FINANCIAL INSTRUMENTS - In the ordinary course of business, the Corporation has entered into off-balance sheet financial instruments consisting of commitments to extend credit and standby letters of credit. Such financial instruments are recorded in the financial statements when they become payable.

CASH FLOWS - The Corporation utilizes the net reporting of cash receipts and cash payments for certain deposit and lending activities. Cash equivalents include federal funds sold and all cash and amounts due from depository institutions and interest-bearing deposits in other banks with original maturities of three months or less.

TRUST ASSETS AND INCOME - Assets held by the Corporation in a fiduciary or agency capacity for its customers are not included in the financial statements since such items are not assets of the Corporation. Trust income is recorded on a cash basis, which is not materially different from the accrual basis.

2. RECENT ACCOUNTING PRONOUNCEMENTS

The Financial Accounting Standards Board (FASB) issues Accounting Standards Updates (ASUs) to the FASB Accounting Standards Codification (ASC). This section provides a summary description of recent ASUs that have significant implications (elected or required) within the consolidated financial statements, or that management expects may have a significant impact on financial statements issued in the foreseeable future.

Recent Accounting Pronouncements - Adopted

Effective January 1, 2018, the Corporation adopted ASU 2014-09, Revenue from Contracts with Customers (Topic 606). Under the ASU, as modified by subsequent ASUs, revenue is recognized when a customer obtains control of promised services in an amount that reflects the consideration the entity expects to receive in exchange for those services. In addition, the standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The Corporation applied the five-step method outlined in the ASU to all revenue streams scoped-in by the ASU and elected the modified retrospective implementation method. Substantially all of the Corporation's interest income and certain noninterest income were not impacted by the adoption of this ASU because the revenue from those contracts with customers is covered by other guidance in U.S. GAAP. The Corporation's largest sources of noninterest revenue which are subject to the guidance include Trust and financial management revenue, service charges on deposit accounts and interchange revenue from debit card transactions. Adoption of ASU 2014-09 did not change the timing and pattern of the Corporation's revenue recognition related to scoped-in noninterest income. New disclosures required by the ASU have been included in Note 21.

In February 2018, the FASB issued ASU 2018-02, Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, which permits, but does not require, entities to reclassify tax effects stranded in accumulated other comprehensive income resulting from the Tax Cuts and Jobs Act of 2017 to retained earnings. Companies that elect to reclassify these amounts must reclassify stranded tax effects for all items accounted for in accumulated other comprehensive income. The Corporation elected early adoption and adopted this standard update, effective January 1, 2018. The Corporation's stranded tax effects were related to valuation of the net deferred tax asset attributable to items of accumulated other comprehensive income (loss), which are unrealized gains (losses) on available-for-sale securities and unfunded defined benefit plan obligations. Adoption resulted in a reclassification between two categories of stockholders' equity at January 1, 2018, with an increase of $325,000 in retained earnings and a decrease in accumulated other comprehensive loss for the same amount (no net change in stockholders' equity).

Effective January 1, 2018, the Corporation elected early adoption of ASU 2017-08, Receivables – Nonrefundable Fees and Other Costs (Subtopic 310-20). This Update shortens the amortization period for certain callable debt securities held at a premium. Discounts will continue to be amortized to maturity. Adoption resulted in a reduction in retained earnings and corresponding increase in accumulated other comprehensive loss (no net change in stockholders' equity) of $26,000 at January 1, 2018 for the cumulative after-tax impact of the change in accounting for debt securities held as of that date.

Effective January 1, 2018, the Corporation adopted ASU 2016-01, Recognition and Measurement of Financial Assets and Liabilities. The guidance affects the accounting for equity investments, financial liabilities under the fair value option and the presentation and disclosure requirements of financial instruments. ASU 2016-01 was effective for the Corporation on January 1, 2018 and resulted in the following changes:

- A marketable equity security previously included in available-for-sale securities on the consolidated balance sheets is presented as a separate asset.

- Changes in the fair value of the marketable equity security are captured in the consolidated statements of income.

- Retained earnings was reduced and a corresponding increase in accumulated other comprehensive loss was recognized (no net change in stockholders' equity) of $22,000 at January 1, 2018 for the after-tax impact of the change in accounting for the unrealized loss on the marketable equity security.

- Adoption of ASU 2016-01 also resulted in the use of an exit price to determine the fair value of financial instruments not measured at fair value in the consolidated balance sheets. Further information regarding valuation of financial instruments is provided in Note 6.

Recently Issued But Not Yet Effective Accounting Pronouncements

ASU 2016-02, Leases (Topic 842) changes GAAP by requiring that lease assets and liabilities arising from operating leases be recognized on the balance sheet. In July 2018, the FASB issued ASU 2018-10 and ASU 2018-11, Codification Improvements to Topic 842, Leases, amending various aspects of Topic 842. Among other things, ASU 2018-11 provides for an optional transition method under which comparative periods presented in the financial statements will continue to be in accordance with Topic 840, Leases, and a practical expedient to not separate non-lease components from the associated lease component. Topic 842 would not significantly change the recognition, measurement and presentation of expenses and cash flows arising from a lease by a lessee from current U.S. GAAP. For leases with a term of 12 months or less, a lessee would be permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and liabilities. Topic 842 will become effective for the Corporation for annual and interim periods beginning in the first quarter 2019. The Corporation has elected to adopt this pronouncement using the optional transition method under ASU 2018-11 as of January 1, 2019 and estimates that the adoption will result in recognition of right-of-use assets and lease liabilities for operating leases of approximately $1,200,000 on its Consolidated Balance Sheets, with no expected adjustment to stockholders' equity and no material impact to its consolidated statements of income.

ASU 2016-13, Financial Instruments-Credit Losses (Topic 326), changes accounting for credit losses on loans receivable and debt securities from an incurred loss methodology to an expected credit loss methodology. Among other things, ASU 2016-13 requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts. Accordingly, ASU 2016-13 requires the use of forward-looking information to form credit loss estimates. Many of the loss estimation techniques applied today will still be permitted, though the inputs to those techniques will change to reflect the full amount of expected credit losses. In addition, ASU 2016-13 amends the accounting for credit losses on debt securities and purchased financial assets with credit deterioration. The amendments in ASU 2016-13 will be effective for the Corporation beginning in the first quarter 2020. Earlier adoption is permitted beginning in the first quarter 2019; however, the Corporation does not plan to early adopt the ASU. The Corporation has formed a cross functional management team and is working with an outside vendor assessing alternative loss estimation methodologies and the Corporation's data and system needs in order to evaluate the impact that adoption of this standard will have on the Corporation's financial condition and results of operations. The Corporation will record the effect of implementing this ASU through a cumulative-effect adjustment through retained earnings as of the beginning of the reporting period in which Topic 326 is effective.

ASU 2017-04, Intangibles – Goodwill and Other (Topic 350) simplifies the accounting for goodwill impairment. This guidance, among other things, removes step 2 of the goodwill impairment test thus eliminating the need to determine the fair value of individual assets and liabilities of the reporting unit. Upon adoption of this ASU, goodwill impairment will be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. This may result in more or less impairment being recognized than under current guidance. This Update will become effective for the Corporation's annual and interim goodwill impairment tests beginning in the first quarter 2020. The Corporation does not expect adoption of this ASU to have a material impact on its consolidated financial statements.

ASU 2018-13, Fair Value Measurement (Topic 820) modifies disclosure requirements on fair value measurements. This ASU removes requirements to disclose the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, the policy for timing of transfers between levels and the valuation processes for Level 3 fair value measurements. ASU 2018-13 clarifies that disclosure regarding measurement uncertainty is intended to communicate information about the uncertainty in measurement as of the reporting date. ASU 2018-13 adds certain disclosure requirements, including disclosure of changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period and the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. The amendments in this ASU are effective for the Corporation beginning in the first quarter 2020. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements and the narrative description of measurement uncertainty should be applied prospectively, while all other amendments should be applied retrospectively for all periods presented. The Corporation does not expect adoption of this ASU to have a material impact on its consolidated financial position or results of operations.

ASU 2018-14, Compensation - Retirement Benefits - Defined Benefit Plans – General (Subtopic 715-20) modifies the disclosure requirements for defined benefit and other postretirement plans. This ASU eliminates certain disclosures associated with accumulated other comprehensive income, plan assets, related parties, and the effects of interest rate basis point changes on assumed health care costs; while other disclosures have been added to address significant gains and losses related to changes in benefit obligations. This ASU also clarifies disclosure requirements for projected benefit and accumulated benefit obligations. The amendments in this ASU are effective for the Corporation beginning in the first quarter 2021. Adoption on a retrospective basis for all periods presented is required. The Corporation does not expect adoption of this ASU to have a material impact on its consolidated financial statements.

ASU 2018-15, Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40) was issued to help entities evaluate the accounting for fees paid by a customer in a cloud computing arrangement (hosting arrangement) by providing guidance for determining when the arrangement includes a software license. The amendments align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by the amendments. This guidance will become effective for the Corporation beginning in the first quarter 2020, with early adoption permitted. The Corporation does not expect adoption of this ASU to have a material impact on its consolidated financial statements.

3. COMPREHENSIVE INCOME

Comprehensive income is the total of (1) net income, and (2) all other changes in equity from non-stockholder sources, which are referred to as other comprehensive (loss) income. The components of other comprehensive (loss) income, and the related tax effects, are as follows:

(In Thousands)	Before-Tax Amount	Income Tax Effect	Net-of-Tax Amount
2018			
Unrealized losses on available-for-sale securities:			
Unrealized holding losses on available-for-sale securities	$ (3,392)	$ 712	$ (2,680)
Reclassification adjustment for losses realized in income	288	(60)	228
Other comprehensive loss on available-for-sale securities	(3,104)	652	(2,452)
Unfunded pension and postretirement obligations:			
Changes from plan amendments and actuarial gains and losses included in other comprehensive income	101	(21)	80
Amortization of prior service cost and net actuarial loss included in net periodic benefit cost	(17)	3	(14)
Other comprehensive income on unfunded retirement obligations	84	(18)	66
Total other comprehensive loss	$ (3,020)	$ 634	$ (2,386)

(In Thousands)	Before-Tax Amount	Income Tax Effect	Net-of-Tax Amount
2017			
Unrealized losses on available-for-sale securities:			
Unrealized holding losses on available-for-sale securities	$ (691)	$ 242	$ (449)
Reclassification adjustment for (gains) realized in income	(257)	89	(168)
Other comprehensive loss on available-for-sale securities	(948)	331	(617)
Unfunded pension and postretirement obligations:			
Changes from plan amendments and actuarial gains and losses included in other comprehensive income	36	(12)	24
Amortization of prior service cost and net actuarial loss included in net periodic benefit cost	(24)	8	(16)
Other comprehensive income on unfunded retirement obligations	12	(4)	8
Total other comprehensive loss	$ (936)	$ 327	$ (609)

46

Changes in the components of accumulated other comprehensive (loss) income, included in stockholders' equity, are as follows:

(In Thousands)	Unrealized Losses on Securities	Unfunded Retirement Obligations	Accumulated Other Comprehensive Loss
2018			
Balance, beginning of period	$ (1,566)	$ 59	$ (1,507)
Impact of change in enacted income tax rate	(337)	12	(325)
Impact of change in the method of premium amortization of callable debt securities	26	0	26
Impact of change in the method of accounting for marketable equity security	22	0	22
Other comprehensive (loss) income during year ended December 31, 2018	(2,452)	66	(2,386)
Balance, end of period	$ (4,307)	$ 137	$ (4,170)
2017			
Balance, beginning of period	$ (949)	$ 51	$ (898)
Other comprehensive (loss) income during year ended December 31, 2017	(617)	8	(609)
Balance, end of period	$ (1,566)	$ 59	$ (1,507)

Items reclassified out of each component of accumulated other comprehensive (loss) income are as follows:

For the Year Ended December 31, 2018

(In Thousands)

Details about Accumulated Other Comprehensive Loss Components	Reclassified from Accumulated Other Comprehensive Loss	Affected Line Item in the Consolidated Statements of Income
Unrealized gains and losses on available-for-sale securities	$ 288	Realized losses on available-for-sale debt securities, net
	(60)	Income tax provision
	228	Net of tax

Amortization of defined benefit pension and postretirement items:		
Prior service cost	(30)	Other noninterest expense
Actuarial loss	13	Other noninterest expense
	(17)	Total before tax
	3	Income tax provision
	(14)	Net of tax
Total reclassifications for the period	$ 214	

47

For the Year Ended December 31, 2017

(In Thousands)

Details about Accumulated Other Comprehensive Loss Components	Reclassified from Accumulated Other Comprehensive Loss	Affected Line Item in the Consolidated Statements of Income
Unrealized gains and losses on available-for-sale securities	$ (257)	Realized gains on available-for-sale debt securities, net
	89	Income tax provision
	(168)	Net of tax
Amortization of defined benefit pension and postretirement items:		
Prior service cost	(31)	Other noninterest expense
Actuarial loss	7	Other noninterest expense
	(24)	Total before tax
	8	Income tax provision
	(16)	Net of tax
Total reclassifications for the period	$ (184)	

4. PER SHARE DATA

Basic earnings per common share are calculated using the two-class method to determine income attributable to common shareholders. Unvested restricted stock awards that contain nonforfeitable rights to dividends are considered participating securities under the two-class method. Distributed dividends and an allocation of undistributed net income to participating securities reduce the amount of income attributable to common shareholders. Income attributable to common shareholders is then divided by weighted-average common shares outstanding for the period to determine basic earnings per common share.

Diluted earnings per common share are calculated under the more dilutive of either the treasury method or the two-class method. Diluted earnings per common share is computed using weighted-average common shares outstanding, plus weighted-average common shares available from the exercise of all dilutive stock options, less the number of shares that could be repurchased with the proceeds of stock option exercises based on the average share price of the Corporation's common stock during the period.

	Years Ended	
	Dec. 31, 2018	Dec. 31, 2017
Basic		
Net income	$22,013,000	$13,434,000
Less: Dividends and undistributed earnings allocated to participating securities	(110,000)	(69,000)
Net income attributable to common shares	$21,903,000	$13,365,000
Basic weighted-average common shares outstanding	12,219,209	12,115,840
Basic earnings per common share (a)	$1.79	$1.10
Diluted		
Net income attributable to common shares	$21,903,000	$13,365,000
Basic weighted-average common shares outstanding	12,219,209	12,115,840
Dilutive effect of potential common stock arising from stock options	38,159	39,296
Diluted weighted-average common shares outstanding	12,257,368	12,155,136
Diluted earnings per common share (a)	$1.79	$1.10

(a) Basic and diluted earnings per share under the two-class method are determined on net income reported on the income statement less earnings allocated to nonvested restricted shares with nonforfeitable dividends (participating securities).

The weighted-average number of nonvested restricted shares outstanding was 61,778 shares in 2018 and 62,329 shares in 2017.

Stock options that are anti-dilutive are excluded from net income per share calculations. There were no anti-dilutive instruments in 2018 or 2017.

5. CASH AND DUE FROM BANKS

Cash and due from banks at December 31, 2018 and 2017 include the following:

(In thousands)	Dec. 31, 2018	Dec. 31, 2017
Cash and cash equivalents	$32,827	$37,004
Certificates of deposit	4,660	3,240
Total cash and due from banks	$37,487	$40,244

Certificates of deposit are issues by U.S. banks with original maturities greater than three months. Each certificate of deposit is fully FDIC-insured. The Corporation maintains cash and cash equivalents with certain financial institutions in excess of the FDIC insurance limit.

The Corporation is required to maintain reserves against deposit liabilities in the form of cash and balances with the Federal Reserve Bank. The reserves are based on deposit levels, account activity, and other services provided by the Federal Reserve Bank. Required reserves were $18,141,000 at December 31, 2018 and $17,178,000 at December 31, 2017.

6. FAIR VALUE MEASUREMENTS AND FAIR VALUES OF FINANCIAL INSTRUMENTS

The Corporation measures certain assets at fair value. Fair value is defined as the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. FASB ASC topic 820, “Fair Value Measurements and Disclosures” establishes a framework for measuring fair value that includes a hierarchy used to classify the inputs used in measuring fair value. The hierarchy prioritizes the inputs used in determining valuations into three levels. The level in the fair value hierarchy within which the fair value measurement falls is determined based on the lowest level input that is significant to the fair value measurement. The levels of the fair value hierarchy are as follows:

Level 1 – Fair value is based on unadjusted quoted prices in active markets that are accessible to the Corporation for identical assets. These generally provide the most reliable evidence and are used to measure fair value whenever

available.

Level 2 – Fair value is based on significant inputs, other than Level 1 inputs, that are observable either directly or indirectly for substantially the full term of the asset through corroboration with observable market data. Level 2 inputs include quoted market prices in active markets for similar assets, quoted market prices in markets that are not active for identical or similar assets and other observable inputs.

Level 3 – Fair value is based on significant unobservable inputs. Examples of valuation methodologies that would result in Level 3 classification include option pricing models, discounted cash flows and other similar techniques.

The Corporation monitors and evaluates available data relating to fair value measurements on an ongoing basis and recognizes transfers among the levels of the fair value hierarchy as of the date of an event or change in circumstances that affects the valuation method chosen. Examples of such changes may include the market for a particular asset becoming active or inactive, changes in the availability of quoted prices, or changes in the availability of other market data.

At December 31, 2018 and 2017, assets measured at fair value and the valuation methods used are as follows:

	December 31, 2018			
(In Thousands)	Quoted Prices in Active Markets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)	Total Fair Value
Recurring fair value measurements				
AVAILABLE-FOR-SALE DEBT SECURITIES:				
Obligations of U.S. Government agencies	$ 0	$12,500	$ 0	$15,500
Obligations of states and political subdivisions:				
Tax-exempt	0	83,952	0	83,952
Taxable	0	27,699	0	27,699
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:				
Residential pass-through securities	0	53,445	0	53,445
Residential collateralized mortgage obligations	0	145,912	0	145,912
Commercial mortgage-backed securities	0	39,765	0	39,765
Total available-for-sale debt securities	0	363,273	0	363,273
Marketable equity security	950	0	0	950
Servicing rights	0	0	1,404	1,404
Total recurring fair value measurements	$ 950	$363,273	$ 1,404	$365,627
Nonrecurring fair value measurements				
Impaired loans with a valuation allowance	$ 0	$0	$ 4,851	$4,851
Valuation allowance	0	0	(1,605)	(1,605)
Impaired loans, net	0	0	3,246	3,246
Foreclosed assets held for sale	0	0	1,703	1,703
Total nonrecurring fair value measurements	$ 0	$0	$ 4,949	$4,949

	December 31, 2017			
(In Thousands)	Quoted Prices in Active Markets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)	Total Fair Value
Recurring fair value measurements				
AVAILABLE-FOR-SALE DEBT SECURITIES:				
Obligations of U.S. Government agencies	$ 0	$7,873	$ 0	$7,873
Obligations of states and political subdivisions:				
Tax-exempt	0	105,111	0	105,111
Taxable	0	25,573	0	25,573
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:				
Residential pass-through securities	0	52,347	0	52,347
Residential collateralized mortgage obligations	0	131,814	0	131,814
Commercial mortgage-backed securities	0	33,219	0	33,219
Total available-for-sale debt securities	0	355,937	0	355,937
Marketable equity security	971	0	0	971
Servicing rights	0	0	1,299	1,299
Total recurring fair value measurements	$ 971	$355,937	$ 1,299	$358,207
Nonrecurring fair value measurements				
Impaired loans with a valuation allowance	$ 0	$0	$ 3,776	$3,776
Valuation allowance	0	0	(1,183)	(1,183)
Impaired loans, net	0	0	2,593	2,593
Foreclosed assets held for sale	0	0	1,598	1,598
Total nonrecurring fair value measurements	$ 0	$0	$ 4,191	$4,191

Management’s evaluation and selection of valuation techniques and the unobservable inputs used in determining the fair values of assets valued using Level 3 methodologies include sensitive assumptions. Other market participants might use substantially different assumptions, which could result in calculations of fair values that would be substantially different than the amount calculated by management. The following table shows quantitative information regarding significant techniques and inputs used at December 31, 2018 and 2017 for servicing rights assets measured using unobservable inputs (Level 3 methodologies) on a recurring basis:

Asset	Fair Value at 12/31/18 (In Thousands)	Valuation Technique	Unobservable Input(s)	Method or Value As of 12/31/18
Servicing rights	$ 1,404	Discounted cash flow	Discount rate	12.50 % Rate used through modeling period
				114.00% Weighted-average PSA

Loan prepayment speeds			
Servicing fees	0.25	%	of loan balances
	4.00	%	of payments are late
	5.00	%	late fees assessed
	$1.94		Miscellaneous fees per account per month
Servicing costs	$6.00		Monthly servicing cost per account
	$24.00		Additional monthly servicing cost per loan on loans more than 30 days delinquent
	1.50	%	of loans more than 30 days delinquent
	3.00	%	annual increase in servicing costs

51

Asset	Fair Value at 12/31/17 (In Thousands)	Valuation Technique	Unobservable Input(s)			Method or Value As of 12/31/17
Servicing rights	$ 1,299	Discounted cash flow	Discount rate	13.00	%	Rate used through modeling period
			Loan prepayment speeds	140.00	%	Weighted-average PSA
			Servicing fees	0.25	%	of loan balances
				4.00	%	of payments are late
				5.00	%	late fees assessed
				$1.94		Miscellaneous fees per account per month
			Servicing costs	$6.00		Monthly servicing cost per account
				$24.00		Additional monthly servicing cost per loan on loans more than 30 days delinquent
				1.50	%	of loans more than 30 days delinquent
				3.00	%	annual increase in servicing costs

The fair value of servicing rights is affected by expected future interest rates. Increases (decreases) in future expected interest rates tend to increase (decrease) the fair value of the Corporation’s servicing rights because of changes in expected prepayment behavior by the borrowers on the underlying loans.

Following is a reconciliation of activity for Level 3 assets (servicing rights) measured at fair value on a recurring basis:

	Years Ended December 31,	
(In Thousands)	2018	2017
Balance, beginning of period	$ 1,299	$ 1,262
Issuances of servicing rights	188	205
Unrealized losses included in earnings	(83)	(168)
Balance, end of period	$ 1,404	$ 1,299

Loans are classified as impaired when, based on current information and events, it is probable that the Corporation will be unable to collect the scheduled payments of principal or interest when due according to the contractual terms of the loan agreement. Foreclosed assets held for sale consist of real estate acquired by foreclosure. For impaired commercial loans secured by real estate and foreclosed assets held for sale, estimated fair values are determined primarily using values from third-party appraisals. Appraised values are discounted to arrive at the estimated selling price of the collateral, which is considered to be the estimated fair value. The discounts also include estimated costs to sell the property.

At December 31, 2018 and 2017, quantitative information regarding significant techniques and inputs used for nonrecurring fair value measurements using unobservable inputs (Level 3 methodologies) are as follows:

(In Thousands, Except Percentages) Asset	Balance at 12/31/18	Valuation Allowance at 12/31/18	Fair Value at 12/31/18	Valuation Technique	Unobservable Inputs	Weighted-Average Discount at 12/31/18
Impaired loans:						
Residential mortgage loans - first liens	$ 509	$ 116	$ 393	Sales comparison	Discount to appraised value	26 %
Commercial:						
Commercial loans secured by real estate	2,515	781	1,734	Sales comparison	Discount to appraised value	16 %
Commercial and industrial	75	75	0	Sales comparison	Discount to appraised value	100 %
Commercial and industrial	1,265	584	681	Sales comparison	Discount to borrower's financial statement value	36 %
Loans secured by farmland	487	49	438	Sales comparison	Discount to appraised value	56 %
Total impaired loans	$ 4,851	$ 1,605	$ 3,246			
Foreclosed assets held for sale - real estate:						
Residential (1-4 family)	$ 64	$ 0	$ 64	Sales comparison	Discount to appraised value	68 %
Land	110	0	110	Sales comparison	Discount to appraised value	61 %
Commercial real estate	1,529	0	1,529	Sales comparison	Discount to appraised value	20 %
Total foreclosed assets held for sale	$ 1,703	$ 0	$ 1,703			

(In Thousands, Except Percentages) Asset	Balance at 12/31/17	Valuation Allowance at 12/31/17	Fair Value at 12/31/17	Valuation Technique	Unobservable Inputs	Weighted-Average Discount at 12/31/17
Impaired loans:						
Residential mortgage loans - first liens	$ 515	$ 122	$ 393	Sales comparison	Discount to appraised value	26 %
Commercial:						
Commercial loans secured by real estate	2,641	919	1,722	Sales comparison	Discount to appraised value	16 %
Commercial and industrial	126	92	34	Sales comparison	Discount to appraised value	72 %
Loans secured by farmland	494	50	444	Sales comparison	Discount to appraised value	53 %
Total impaired loans	$ 3,776	$ 1,183	$ 2,593			
Foreclosed assets held for sale - real estate:						
Residential (1-4 family)	$ 721	$ 0	$ 721	Sales comparison	Discount to appraised value	37 %
Land	632	0	632	Sales comparison	Discount to appraised value	35 %
Commercial real estate	245	0	245	Sales comparison	Discount to appraised value	71 %
Total foreclosed assets held for sale	$ 1,598	$ 0	$ 1,598			

Certain of the Corporation’s financial instruments are not measured at fair value in the consolidated financial statements. In cases where quoted market prices are not available, fair values are based on estimates using present value or other valuation techniques. Those techniques are significantly affected by the assumptions used, including the discount rate and estimates of future cash flows. Accordingly, the fair value estimates may not be realized in an immediate settlement of the instrument. Certain financial instruments and all nonfinancial instruments are excluded from disclosure requirements. Therefore, the aggregate fair value amounts presented may not represent the underlying fair value of the Corporation.

The estimated fair values, and related carrying amounts, of the Corporation’s financial instruments that are not recorded at fair value are as follows:

(In Thousands)	Valuation Method(s) Used	December 31, 2018 Carrying Amount	December 31, 2018 Fair Value	December 31, 2017 Carrying Amount	December 31, 2017 Fair Value

Financial assets:					
Cash and cash equivalents	Level 1	$32,827	$32,827	$37,004	$37,004
Certificates of deposit	Level 2	4,660	4,634	3,240	3,234
Restricted equity securities (included in Other Assets)	Level 2	5,712	5,712	6,556	6,556
Loans, net	Level 3	818,254	825,809	806,857	789,891
Accrued interest receivable	Level 2	3,968	3,968	4,048	4,048
Financial liabilities:					
Deposits with no stated maturity	Level 2	804,207	804,207	794,778	794,778
Time deposits	Level 2	229,565	229,751	213,671	213,734
Short-term borrowings	Level 2	12,853	12,617	61,766	61,643
Long-term borrowings	Level 2	35,915	35,902	9,189	9,256
Accrued interest payable	Level 2	142	142	46	46

7. SECURITIES

Amortized cost and fair value of available-for-sale debt securities at December 31, 2018 and 2017 are summarized as follows:

	December 31, 2018			
(In Thousands)	Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Fair Value
Obligations of U.S. Government agencies	$ 12,331	$ 169	$ 0	$ 12,500
Obligations of states and political subdivisions:				
Tax-exempt	84,204	949	(1,201)	83,952
Taxable	27,618	208	(127)	27,699
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:				
Residential pass-through securities	54,827	48	(1,430)	53,445
Residential collateralized mortgage obligations	148,964	238	(3,290)	145,912
Commercial mortgage-backed securities	40,781	166	(1,182)	39,765
Total	$ 368,725	$ 1,778	$ (7,230)	$ 363,273

	December 31, 2017			
(In Thousands)	Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Fair Value
Obligations of U.S. Government agencies	$ 8,026	$ 0	$ (153)	$ 7,873
Obligations of states and political subdivisions:				
Tax-exempt	103,673	2,291	(853)	105,111
Taxable	25,431	226	(84)	25,573
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:				
Residential pass-through securities	52,992	79	(724)	52,347
Residential collateralized mortgage obligations	134,314	110	(2,610)	131,814
Commercial mortgage-backed securities	33,881	4	(666)	33,219
Total	$ 358,317	$ 2,710	$ (5,090)	$ 355,937

The following table presents gross unrealized losses and fair value of available-for-sale debt securities with unrealized loss positions that are not deemed to be other-than-temporarily impaired, aggregated by length of time that individual securities have been in a continuous unrealized loss position at December 31, 2018 and 2017:

December 31, 2018 (In Thousands)	Less Than 12 Months Fair Value	Less Than 12 Months Unrealized Losses	12 Months or More Fair Value	12 Months or More Unrealized Losses	Total Fair Value	Total Unrealized Losses
Obligations of states and political subdivisions:						
Tax-exempt	$ 5,084	$ (11)	$ 32,684	$ (1,190)	$ 37,768	$ (1,201)
Taxable	980	(2)	11,418	(125)	12,398	(127)
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:						
Residential pass-through securities	5,592	(4)	42,309	(1,426)	47,901	(1,430)
Residential collateralized mortgage obligations	1,892	(8)	101,662	(3,282)	103,554	(3,290)
Commercial mortgage-backed securities	0	0	32,552	(1,182)	32,552	(1,182)
Total	$ 13,548	$ (25)	$ 220,625	$ (7,205)	$ 234,173	$ (7,230)

December 31, 2017 (In Thousands)	Less Than 12 Months Fair Value	Less Than 12 Months Unrealized Losses	12 Months or More Fair Value	12 Months or More Unrealized Losses	Total Fair Value	Total Unrealized Losses
Obligations of U.S. Government agencies	$ 0	$ 0	$ 7,873	$ (153)	$ 7,873	$ (153)
Obligations of states and political subdivisions:						
Tax-exempt	19,050	(135)	24,391	(718)	43,441	(853)
Taxable	9,279	(45)	2,116	(39)	11,395	(84)
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:						
Residential pass-through securities	25,255	(242)	22,549	(482)	47,804	(724)
Residential collateralized mortgage obligations	50,812	(589)	68,558	(2,021)	119,370	(2,610)
Commercial mortgage-backed securities	14,713	(173)	14,569	(493)	29,282	(666)
Total	$ 119,109	$ (1,184)	$ 140,056	$ (3,906)	$ 259,165	$ (5,090)

Gross realized gains and losses from available-for-sale securities and the related income tax provision were as follows:

(In Thousands)	2018	2017
Gross realized gains from sales	$ 259	$ 315
Gross realized losses from sales	(547)	(58)
Net realized (losses) gains	$ (288)	$ 257
Income tax (credit) provision related to net realized (losses) gains	$ (60)	$ 89

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

(In Thousands)	December 31, 2018 Amortized Cost	December 31, 2018 Fair Value
Due in one year or less	$ 21,962	$ 22,138
Due from one year through five years	34,488	34,629
Due from five years through ten years	39,532	39,004
Due after ten years	28,171	28,380
Sub-total	124,153	124,151
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:		

Residential pass-through securities	54,827	53,445
Residential collateralized mortgage obligations	148,964	145,912
Commercial mortgage-backed securities	40,781	39,765
Total	$368,725	$363,273

The Corporation’s mortgage-backed securities and collateralized mortgage obligations have stated maturities that may differ from actual maturities due to borrowers’ ability to prepay obligations. Cash flows from such investments are dependent upon the performance of the underlying mortgage loans and are generally influenced by the level of interest rates. In the table above, mortgage-backed securities and collateralized mortgage obligations are shown in one period.

Investment securities carried at $229,418,000 at December 31, 2018 and $217,925,000 at December 31, 2017 were pledged as collateral for public deposits, trusts and certain other deposits as provided by law. See Note 12 for information concerning securities pledged to secure borrowing arrangements.

Management evaluates securities for OTTI at least on a quarterly basis, and more frequently when economic or market conditions warrant such evaluation. Consideration is given to (1) the length of time and the extent to which the fair value has been less than cost, (2) the financial condition and near-term prospects of the issuer, and (3) whether the Corporation intends to sell the security or more likely than not will be required to sell the security before its anticipated recovery.

A summary of information management considered in evaluating debt and equity securities for OTTI at December 31, 2018 and 2017 is provided below.

Debt Securities

At December 31, 2018 and 2017, management performed an assessment for possible OTTI of the Corporation's debt securities on an issue-by-issue basis, relying on information obtained from various sources, including publicly available financial data, ratings by external agencies, brokers and other sources. The extent of individual analysis applied to each security depended on the size of the Corporation's investment, as well as management's perception of the credit risk associated with each security. Based on the results of the assessment, management believes impairment of these debt securities at December 31, 2018 and 2017 to be temporary.

Equity Securities

C&N Bank is a member of the Federal Home Loan Bank of Pittsburgh (FHLB-Pittsburgh), which is one of 11 regional Federal Home Loan Banks. As a member, C&N Bank is required to purchase and maintain stock in FHLB-Pittsburgh. There is no active market for FHLB-Pittsburgh stock, and it must ordinarily be redeemed by FHLB-Pittsburgh in order to be liquidated. C&N Bank's investment in FHLB-Pittsburgh stock, included in Other Assets in the consolidated balance sheets, was $5,582,000 at December 31, 2018 and $6,426,000 at December 31, 2017. The Corporation evaluated its holding of FHLB-Pittsburgh stock for impairment and deemed the stock to not be impaired at December 31, 2018 and December 31, 2017. In making this determination, management concluded that recovery of total outstanding par value, which equals the carrying value, is expected. The decision was based on review of financial information that FHLB-Pittsburgh has made publicly available

The Corporation's marketable equity security, with carrying values of $950,000 at December 31, 2018 and $971,000 at December 31, 2017, consisted exclusively of one mutual fund. There was an unrealized loss on the mutual fund of $50,000 at December 31, 2018 and $29,000 at December 31, 2017. The increase in the unrealized loss of $21,000 in 2018 is included in other noninterest income in the consolidated statements of income.

In the year ended December 31, 2018, the Corporation recorded pre-tax gains from sales of a restricted equity security (Visa Class B stock) totaling $2,321,000. The Corporation had received 19,789 shares of Visa Class B stock pursuant to Visa's 2007 initial public offering. Until the second quarter 2018, the carrying value of the shares was $0, which represented the Corporation's cost basis. Class B shares are subject to restrictions on transfer, essentially limiting their transferability to other owners of Class B shares. In the second and third quarters of 2018, the Corporation sold all of its Visa Class B stock.

A summary of realized and unrealized gains and losses recognized on equity securities is as follows:

(In Thousands)	2018	2017
Net gains recognized during the period on equity securities	$2,300	$ 0
Less: net gains recognized during the period on equity securities sold during the period	(2,321)	0
Unrealized losses recognized during the period on equity securities still held at the reporting date	$(21)	$ 0

8. LOANS

Loans outstanding at December 31, 2018 and 2017 are summarized as follows:

Summary of Loans by Type (In Thousands)	Dec. 31, 2018	Dec. 31, 2017
Residential mortgage:		
Residential mortgage loans - first liens	$372,339	$359,987
Residential mortgage loans - junior liens	25,450	25,325
Home equity lines of credit	34,319	35,758
1-4 Family residential construction	24,698	26,216
Total residential mortgage	456,806	447,286
Commercial:		
Commercial loans secured by real estate	162,611	159,266
Commercial and industrial	91,856	88,276
Political subdivisions	53,263	59,287
Commercial construction and land	11,962	14,527
Loans secured by farmland	7,146	7,255
Multi-family (5 or more) residential	7,180	7,713
Agricultural loans	5,659	6,178
Other commercial loans	13,950	10,986
Total commercial	353,627	353,488
Consumer	17,130	14,939
Total	827,563	815,713
Less: allowance for loan losses	(9,309)	(8,856)
Loans, net	$818,254	$806,857

The Corporation grants loans to individuals as well as commercial and tax-exempt entities. Commercial, residential and personal loans are made to customers geographically concentrated in the Pennsylvania and New York counties that make up the market serviced by Citizens & Northern Bank. Although the Corporation has a diversified loan portfolio, a significant portion of its debtors' ability to honor their contracts is dependent on the local economic conditions within the region. There is no concentration of loans to borrowers engaged in similar businesses or activities that exceed 10% of total loans at December 31, 2018.

Transactions within the allowance for loan losses, summarized by segment and class, were as follows:

Year Ended December 31, 2018 (In Thousands)	Dec. 31, 2017 Balance	Charge-offs	Recoveries	Provision (Credit)	Dec. 31, 2018 Balance
Allowance for Loan Losses:					
Residential mortgage:					
Residential mortgage loans - first liens	$ 3,200	$ (108)	$ 4	$ 60	$ 3,156
Residential mortgage loans - junior liens	224	0	4	97	325
Home equity lines of credit	296	(50)	0	56	302
1-4 Family residential construction	243	0	0	(40)	203
Total residential mortgage	3,963	(158)	8	173	3,986
Commercial:					
Commercial loans secured by real estate	2,584	(21)	0	(25)	2,538
Commercial and industrial	1,065	(144)	6	626	1,553
Commercial construction and land	150	0	0	(40)	110
Loans secured by farmland	105	0	0	(3)	102
Multi-family (5 or more) residential	172	0	311	(369)	114
Agricultural loans	57	0	0	(11)	46
Other commercial loans	102	0	0	26	128
Total commercial	4,235	(165)	317	204	4,591
Consumer	159	(174)	41	207	233
Unallocated	499	0	0	0	499
Total Allowance for Loan Losses	$ 8,856	$ (497)	$ 366	$ 584	$ 9,309

Year Ended December 31, 2017 (In Thousands)	Dec. 31, 2016 Balance	Charge-offs	Recoveries	Provision (Credit)	Dec. 31, 2017 Balance
Allowance for Loan Losses:					
Residential mortgage:					
Residential mortgage loans - first liens	$ 3,033	$ (167)	$ 15	$ 319	$ 3,200
Residential mortgage loans - junior liens	258	(16)	4	(22)	224
Home equity lines of credit	350	(14)	0	(40)	296
1-4 Family residential construction	249	0	0	(6)	243
Total residential mortgage	3,890	(197)	19	251	3,963
Commercial:					
Commercial loans secured by real estate	2,380	(96)	0	300	2,584
Commercial and industrial	999	(36)	4	98	1,065
Commercial construction and land	162	0	0	(12)	150
Loans secured by farmland	110	0	0	(5)	105
Multi-family (5 or more) residential	241	0	0	(69)	172
Agricultural loans	40	0	0	17	57

Other commercial loans	115	0	0	(13)	102
Total commercial	4,047	(132)	4	316	4,235
Consumer	138	(150)	38	133	159
Unallocated	398	0	0	101	499
Total Allowance for Loan Losses	$ 8,473	$ (479)	$ 61	$ 801	$ 8,856

In the evaluation of the loan portfolio, management determines two major components for the allowance for loan losses – (1) a specific component based on an assessment of certain larger relationships, mainly commercial purpose loans, on a loan-by-loan basis; and (2) a general component for the remainder of the portfolio based on a collective evaluation of pools of loans with similar risk characteristics.

In determining the larger loan relationships for detailed assessment under the specific allowance component, the Corporation uses an internal risk rating system. Under the risk rating system, the Corporation classifies problem or potential problem loans as “Special Mention,” “Substandard,” or “Doubtful” on the basis of currently existing facts, conditions and values. Substandard loans include those characterized by the distinct possibility that the Corporation will sustain some loss if the deficiencies are not corrected. Loans classified as Doubtful have all the weaknesses inherent in those classified as Substandard with the added characteristic that the weaknesses present make collection or liquidation in full, on the basis of currently existing facts, conditions and values, highly questionable and improbable. Loans that do not currently expose the Corporation to sufficient risk to warrant classification as Substandard or Doubtful, but possess weaknesses that deserve management’s close attention, are deemed to be Special Mention. Risk ratings are updated any time that conditions or the situation warrants. Loans not classified are included in the “Pass” column in the table below.

The following tables summarize the aggregate credit quality classification of outstanding loans by risk rating as of December 31, 2018 and 2017:

December 31, 2018 (In Thousands)	Pass	Special Mention	Substandard	Doubtful	Total
Residential Mortgage:					
Residential mortgage loans - first liens	$363,407	$ 937	$ 7,944	$ 51	$372,339
Residential mortgage loans - junior liens	24,841	176	433	0	25,450
Home equity lines of credit	33,659	59	601	0	34,319
1-4 Family residential construction	24,698	0	0	0	24,698
Total residential mortgage	446,605	1,172	8,978	51	456,806
Commercial:					
Commercial loans secured by real estate	156,308	740	5,563	0	162,611
Commercial and Industrial	84,232	5,230	2,394	0	91,856
Political subdivisions	53,263	0	0	0	53,263
Commercial construction and land	11,887	0	75	0	11,962
Loans secured by farmland	5,171	168	1,796	11	7,146
Multi-family (5 or more) residential	7,180	0	0	0	7,180
Agricultural loans	4,910	84	665	0	5,659
Other commercial loans	13,879	0	71	0	13,950
Total commercial	336,830	6,222	10,564	11	353,627
Consumer	17,116	0	14	0	17,130
Totals	$800,551	$ 7,394	$ 19,556	$ 62	$827,563

December 31, 2017 (In Thousands)	Pass	Special Mention	Substandard	Doubtful	Total
Residential Mortgage:					
Residential mortgage loans - first liens	$350,609	$ 307	$ 9,019	$ 52	$359,987
Residential mortgage loans - junior liens	24,795	104	426	0	25,325
Home equity lines of credit	35,233	61	464	0	35,758
1-4 Family residential construction	26,216	0	0	0	26,216
Total residential mortgage	436,853	472	9,909	52	447,286
Commercial:					
Commercial loans secured by real estate	150,806	936	7,524	0	159,266
Commercial and Industrial	82,724	3,896	1,645	11	88,276
Political subdivisions	59,287	0	0	0	59,287
Commercial construction and land	14,449	0	78	0	14,527
Loans secured by farmland	5,283	581	1,379	12	7,255
Multi-family (5 or more) residential	7,130	0	583	0	7,713
Agricultural loans	5,203	270	705	0	6,178
Other commercial loans	10,913	0	73	0	10,986
Total commercial	335,795	5,683	11,987	23	353,488
Consumer	14,853	0	86	0	14,939
Totals	$787,501	$ 6,155	$ 21,982	$ 75	$815,713

The scope of loans reviewed individually each quarter to determine if they are impaired include all commercial loan relationships greater than $200,000 and any residential mortgage or consumer loans of $400,000 or more for which there is at least one extension of credit graded Special Mention, Substandard or Doubtful. Loans that are individually reviewed, but which are determined to not be impaired, are combined with all remaining loans that are not reviewed on a specific basis, and such loans are included within larger pools of loans based on similar risk and loss characteristics for purposes of determining the general component of the allowance. The loans that have been individually reviewed, but which have been determined to not be impaired, are included in the “Collectively Evaluated” column in the table summarizing the allowance and associated loan balances as of December 31, 2018 and 2017. All loans classified as troubled debt restructurings (discussed in more detail below) and all commercial loan relationships less than $200,000 or other loan relationships less than $400,000 in the aggregate, but with an estimated loss of $100,000 or more, are individually evaluated for impairment.

The following tables present a summary of loan balances and the related allowance for loan losses summarized by portfolio segment and class for each impairment method used as of December 31, 2018 and 2017:

	Loans:			Allowance for Loan Losses:		
December 31, 2018 (In Thousands)	Individually Evaluated	Collectively Evaluated	Totals	Individually Evaluated	Collectively Evaluated	Totals
Residential mortgage:						
Residential mortgage loans - first liens	$991	$ 371,348	$372,339	$ 0	$ 3,156	$ 3,156
Residential mortgage loans - junior liens	293	25,157	25,450	116	209	325
Home equity lines of credit	0	34,319	34,319	0	302	302
1-4 Family residential construction	0	24,698	24,698	0	203	203
Total residential mortgage	1,284	455,522	456,806	116	3,870	3,986
Commercial:						
Commercial loans secured by real estate	4,302	158,309	162,611	781	1,757	2,538
Commercial and industrial	2,157	89,699	91,856	659	894	1,553
Political subdivisions	0	53,263	53,263	0	0	0
Commercial construction and land	0	11,962	11,962	0	110	110
Loans secured by farmland	1,349	5,797	7,146	49	53	102
Multi-family (5 or more) residential	0	7,180	7,180	0	114	114
Agricultural loans	665	4,994	5,659	0	46	46
Other commercial loans	0	13,950	13,950	0	128	128
Total commercial	8,473	345,154	353,627	1,489	3,102	4,591
Consumer	17	17,113	17,130	0	233	233
Unallocated						499
Total	$9,774	$ 817,789	$827,563	$ 1,605	$ 7,205	$ 9,309

	Loans:			Allowance for Loan Losses:		
December 31, 2017 (In Thousands)	Individually Evaluated	Collectively Evaluated	Totals	Individually Evaluated	Collectively Evaluated	Totals
Residential mortgage:						
Residential mortgage loans - first liens	$984	$ 359,003	$359,987	$ 0	$ 3,200	$ 3,200
Residential mortgage loans - junior liens	302	25,023	25,325	122	102	224
Home equity lines of credit	0	35,758	35,758	0	296	296
1-4 Family residential construction	0	26,216	26,216	0	243	243
Total residential mortgage	1,286	446,000	447,286	122	3,841	3,963
Commercial:						
Commercial loans secured by real estate	5,873	153,393	159,266	919	1,665	2,584
Commercial and industrial	568	87,708	88,276	188	877	1,065
Political subdivisions	0	59,287	59,287	0	0	0

Commercial construction and land	0	14,527	14,527	0	150	150
Loans secured by farmland	1,365	5,890	7,255	50	55	105
Multi-family (5 or more) residential	392	7,321	7,713	0	172	172
Agricultural loans	7	6,171	6,178	0	57	57
Other commercial loans	0	10,986	10,986	0	102	102
Total commercial	8,205	345,283	353,488	1,157	3,078	4,235
Consumer	20	14,919	14,939	0	159	159
Unallocated						499
Total	$9,511	$ 806,202	$815,713	$ 1,279	$ 7,078	$ 8,856

Summary information related to impaired loans as of December 31, 2018 and 2017 is as follows:

	December 31, 2018			December 31, 2017		
(In Thousands)	Unpaid Principal Balance	Recorded Investment	Related Allowance	Unpaid Principal Balance	Recorded Investment	Related Allowance
With no related allowance recorded:						
Residential mortgage loans - first liens	$750	$ 721	$ 0	$740	$ 711	$ 0
Residential mortgage loans - junior liens	54	54	0	60	60	0
Commercial loans secured by real estate	1,787	1,787	0	3,230	3,230	0
Commercial and industrial	817	817	0	119	119	0
Loans secured by farmland	862	862	0	871	871	0
Multi-family (5 or more) residential	0	0	0	987	392	0
Agricultural loans	665	665	0	8	8	0
Consumer	17	17	0	20	20	0
Total with no related allowance recorded	4,952	4,923	0	6,035	5,411	0
With a related allowance recorded:						
Residential mortgage loans - first liens	270	270	0	273	273	0
Residential mortgage loans - junior liens	239	239	116	242	242	122
Commercial loans secured by real estate	2,515	2,515	781	2,641	2,641	919
Commercial and industrial	1,340	1,340	659	449	449	188
Loans secured by farmland	487	487	49	495	495	50
Total with a related allowance recorded	4,851	4,851	1,605	4,100	4,100	1,279
Total	$9,803	$ 9,774	$ 1,605	$10,135	$ 9,511	$ 1,279

In the table immediately above, two loans to one borrower are presented under the Residential mortgage loans – first liens and Residential mortgage loans – junior liens classes. These loans are collateralized by one property, and the allowance associated with these loans was determined based on an analysis of the total amounts of the Corporation's exposure in comparison to the estimated net proceeds if the Corporation were to sell the property.

The average balance of impaired loans and interest income recognized on impaired loans is as follows:

	Average Investment in Impaired Loans Year Ended December 31,		Interest Income Recognized on Impaired Loans On a Cash Basis Year Ended December 31,	
(In Thousands)	2018	2017	2018	2017
Residential mortgage:				

Residential mortgage loans - first lien	$ 980	$ 857	$ 52	$ 52
Residential mortgage loans - junior lien	297	112	11	15
Total residential mortgage	1,277	969	63	67
Commercial:				
Commercial loans secured by real estate	4,897	6,272	141	173
Commercial and industrial	708	301	47	24
Loans secured by farmland	1,357	1,379	35	45
Multi-family (5 or more) residential	314	392	0	0
Agricultural loans	542	10	46	1
Total commercial	7,818	8,354	269	243
Consumer	18	26	1	1
Total	$ 9,113	$ 9,349	$ 333	$ 311

The breakdown by portfolio segment and class of nonaccrual loans and loans past due ninety days or more and still accruing is as follows:

	December 31, 2018		December 31, 2017	
(In Thousands)	Past Due 90+ Days and Accruing	Nonaccrual	Past Due 90+ Days and Accruing	Nonaccrual
Residential mortgage:				
Residential mortgage loans - first liens	$ 1,633	$ 4,750	$ 2,340	$ 5,131
Residential mortgage loans - junior liens	151	239	105	242
Home equity lines of credit	219	27	203	44
Total residential mortgage	2,003	5,016	2,648	5,417
Commercial:				
Commercial loans secured by real estate	394	3,958	175	5,645
Commercial and industrial	18	2,111	603	517
Commercial construction and land	0	52	26	52
Loans secured by farmland	459	1,297	271	1,308
Multi-family (5 or more) residential	0	0	0	392
Agricultural loans	0	665	0	7
Total commercial	871	8,083	1,075	7,921
Consumer	32	14	1	66
Totals	$ 2,906	$ 13,113	$ 3,724	$ 13,404

The amounts shown in the table immediately above include loans classified as troubled debt restructurings (described in more detail below), if such loans are considered past due ninety days or more, or nonaccrual.

The tables below present a summary of the contractual aging of loans as of December 31, 2018 and 2017:

	As of December 31, 2018				As of December 31, 2017			
(In Thousands)	Current & Past Due Less than 30 Days	Past Due 30-89 Days	Past Due 90+ Days	Total	Current & Past Due Less than 30 Days	Past Due 30-89 Days	Past Due 90+ Days	Total
Residential mortgage:								

Residential mortgage loans - first liens	$361,362	$ 6,414	$ 4,563	$372,339	$347,032	$ 7,967	$ 4,988	$359,987
Residential mortgage loans - junior liens	24,876	184	390	25,450	25,133	87	105	25,325
Home equity lines of credit	33,611	480	228	34,319	34,789	732	237	35,758
1-4 Family residential construction	24,531	167	0	24,698	25,667	549	0	26,216
Total residential mortgage	444,380	7,245	5,181	456,806	432,621	9,335	5,330	447,286
Commercial:								
Commercial loans secured by real estate	160,668	226	1,717	162,611	155,917	311	3,038	159,266
Commercial and industrial	90,915	152	789	91,856	87,306	303	667	88,276
Political subdivisions	53,263	0	0	53,263	59,287	0	0	59,287
Commercial construction and land	11,910	0	52	11,962	14,400	49	78	14,527
Loans secured by farmland	5,390	487	1,269	7,146	6,226	12	1,017	7,255
Multi-family (5 or more) residential	7,104	76	0	7,180	7,321	0	392	7,713
Agricultural loans	5,624	29	6	5,659	6,114	57	7	6,178
Other commercial loans	13,950	0	0	13,950	10,986	0	0	10,986
Total commercial	348,824	970	3,833	353,627	347,557	732	5,199	353,488
Consumer	16,991	93	46	17,130	14,760	123	56	14,939
Totals	$810,195	$ 8,308	$ 9,060	$827,563	$794,938	$ 10,190	$ 10,585	$815,713

Nonaccrual loans are included in the contractual aging immediately above. A summary of the contractual aging of nonaccrual loans at December 31, 2018 and 2017 is as follows:

(In Thousands)	Current & Past Due Less than 30 Days	Past Due 30-89 Days	Past Due 90+ Days	Total
December 31, 2018 Nonaccrual Totals	$ 5,793	$ 1,166	$ 6,154	$13,113
December 31, 2017 Nonaccrual Totals	$ 5,802	$ 741	$ 6,861	$13,404

Loans whose terms are modified are classified as Troubled Debt Restructurings (TDRs) if the Corporation grants such borrowers concessions and it is deemed that those borrowers are experiencing financial difficulty. Loans classified as TDRs are designated as impaired and reviewed each quarter to determine if a specific allowance for loan losses is required. The outstanding balance of loans subject to TDRs, as well as the contractual aging information at December 31, 2018 and 2017 is as follows:

Troubled Debt Restructurings (TDRs):

(In Thousands)	Current & Past Due Less than 30 Days	Past Due 30-89 Days	Past Due 90+ Days	Nonaccrual	Total
December 31, 2018 Totals	$ 612	$ 43	$ 0	$ 2,884	$3,539
December 31, 2017 Totals	$ 636	$ 0	$ 0	$ 3,027	$3,663

At December 31, 2018 and 2017, there were no commitments to loan additional funds to borrowers whose loans have been classified as TDRs.

A summary of TDRs that occurred during 2018 and 2017 is as follows:

	2018		2017	
	Number	Post-Modification	Number	Post-Modification

(Balances in Thousands)	of Loans	Recorded Investment	of Loans	Recorded Investment
Residential mortgage - first liens,				
Reduced monthly payments for a six-month period	1	$ 80	0	$ 0
Commercial loans secured by real estate,				
Extended interest only payments for a six-month period	2	36	0	0
Commercial and industrial,				
Extended interest only payments for a six-month period	1	46	0	0
Total	4	$ 162	0	$ 0

There were no differences between the outstanding contractual amounts and the recorded investments in receivables resulting from TDRs that occurred in 2018 and 2017.

For 2018 and 2017, there were no defaults on loans for which modifications considered to be TDRs were entered into within the previous 12 months.

The carrying amount of foreclosed residential real estate properties held as a result of obtaining physical possession (included in Foreclosed assets held for sale in the consolidated balance sheets) is as follows:

(In Thousands)	Dec. 31, 2018	Dec. 31, 2017
Foreclosed residential real estate	$ 64	$ 721

The recorded investment of consumer mortgage loans secured by residential real properties for which formal foreclosure proceedings were in process is as follows:

(In Thousands)	Dec. 31, 2018	Dec. 31, 2017
Residential real estate in process of foreclosure	$ 1,097	$ 1,789

9. BANK PREMISES AND EQUIPMENT

	December 31,	
(In Thousands)	2018	2017
Land	$2,803	$2,818
Buildings and improvements	27,343	28,285
Furniture and equipment	16,577	15,578
Construction in progress	2	268
Total	46,725	46,949
Less: accumulated depreciation	(32,133)	(31,517)
Net	$14,592	$15,432

Depreciation expense is included in the following line items of the consolidated statements of income:

(In Thousands)	2018	2017
Occupancy expense	$849	$801
Furniture and equipment expense	684	758
Data processing expenses	183	80
Telecommunications expenses	38	0
Total	$1,754	$1,639

10. INTANGIBLE ASSETS

There were no changes in the carrying amount of goodwill in 2018 and 2017. The balance in goodwill was $11,942,000 at December 31, 2018 and 2017. The Corporation did not complete any acquisitions in 2018 or 2017.

In testing goodwill for impairment as of December 31, 2018, the Corporation assessed qualitative factors to determine whether it is more likely than not that the fair value of its only reporting unit, its community banking operation, is less than its carrying amount. The qualitative factors assessed included the Corporation's recent financial performance, economic conditions in the Corporation's market area, macroeconomic conditions and other factors. Based on the assessment of qualitative factors, the Corporation determined that it is not more likely than not that the fair value of the community banking operation has fallen below its carrying value, and therefore, the Corporation did not perform the more detailed, two-step goodwill impairment test described in Topic 350. Accordingly, there was no goodwill impairment as of December 31, 2018.

Information related to the core deposit intangibles is as follows:

	December 31,	
(In Thousands)	2018	2017
Gross amount	$2,034	$2,034
Less: accumulated amortization	(2,025)	(2,022)
Net	$9	$12

Amortization expense was $3,000 in 2018 and $5,000 in 2017. The amount of amortization expense to be recognized each of the ensuing five years is not significant.

11. DEPOSITS

At December 31, 2018, the scheduled maturities of time deposits are as follows:

(In Thousands)	
2019	$131,208
2020	56,279
2021	18,518
2022	11,463
2023	10,814
Thereafter	1,283
Total	$229,565

Time deposits of more than $250,000 totaled $36,094,000 at December 31, 2018 and $12,653,000 at December 31, 2017. As of December 31, 2018, the remaining maturities or time to next re-pricing of time deposits more than $250,000 was as follows:

(In Thousands)	
Three months or less	$18,327
Over 3 months through 12 months	14,349
Over 1 year through 3 years	1,341
Over 3 years	2,077
Total	$36,094

12. BORROWED FUNDS

Short-term borrowings (initial maturity within one year) include the following:

(In Thousands)	Dec. 31, 2018	Dec. 31, 2017
FHLB-Pittsburgh borrowings	$7,000	$58,000
Customer repurchase agreements	5,853	3,766
Total short-term borrowings	$12,853	$61,766

Short-term borrowings from FHLB-Pittsburgh are as follows:

(In Thousands)	Dec. 31, 2018	Dec. 31 2017
Overnight borrowing	$7,000	$29,000
Other short-term advances	0	29,000
Total short-term FHLB-Pittsburgh borrowings	$7,000	$58,000

The weighted average interest rate on total short-term borrowings outstanding was 1.47% at December 31, 2018 and 1.52% at December 31, 2017. The maximum amount of total short-term borrowings outstanding at any month-end was $74,646,000 in 2018 and $61,766,000 in 2017.

The Corporation had available credit with other correspondent banks totaling $45,000,000 at December 31, 2018 and 2017. These lines of credit are primarily unsecured. No amounts were outstanding at December 31, 2018 or 2017.

The Corporation has a line of credit with the Federal Reserve Bank of Philadelphia’s Discount Window. At December 31, 2018, the Corporation had available credit in the amount of $15,262,000 on this line with no outstanding advances. At December 31, 2017, the Corporation had available credit in the amount of $15,877,000 on this line with no outstanding advances. As collateral for this line, the Corporation has pledged available-for-sale securities with a carrying value of $15,710,000 at December 31, 2018 and $16,301,000 at December 31, 2017.

The FHLB-Pittsburgh loan facility is collateralized by qualifying loans secured by real estate with a book value totaling $495,143,000 at December 31, 2018 and $488,889,000 at December 31, 2017. Also, the FHLB-Pittsburgh loan facility requires the Corporation to invest in established amounts of FHLB-Pittsburgh stock. The carrying values of the Corporation’s holdings of FHLB-Pittsburgh stock (included in Other Assets) were $5,582,000 at December 31, 2018 and $6,426,000 at December 31, 2017. The Corporation’s total credit facility with FHLB-Pittsburgh was $361,614,000 at December 31, 2018, including an unused (available) amount of $318,699,000. At December 31, 2017, the Corporation’s total credit facility with FHLB-Pittsburgh was $362,630,000, including an unused (available) amount of $295,441,000.

Overnight borrowings from FHLB-Pittsburgh had an interest rate of 2.62% at December 31, 2018 and 1.54% at December 31, 2017. At December 31, 2017, the other short-term advances included 9 advances of $3,000,000 and 1 advance of $2,000,000, each maturing monthly from January through October 2018, with a weighted average interest rate of 1.69% and rates ranging from 1.23% to 1.89%.

The Corporation engages in repurchase agreements with certain commercial customers. These agreements provide that the Corporation sells specified investment securities to the customers on an overnight basis and repurchases them on the following business day. The weighted average rate paid by the Corporation on customer repurchase agreements was 0.10% at December 31, 2018 and December 31, 2017. The carrying value of the underlying securities was $5,890,000 at December 31, 2018 and $5,310,000 at December 31, 2017.

LONG-TERM BORROWINGS

Long-term borrowings from FHLB - Pittsburgh are as follows:

(In Thousands)	Dec. 31, 2018	Dec. 31, 2017
Loan matured in November 2018 with a rate of 1.63%	$0	$ 3,000
Loan matured in December 2018 with a rate of 1.35%	0	3,000
Loan maturing in January 2019 with a rate of 1.83%	2,000	2,000
Loan maturing in February 2019 with a rate of 1.95%	3,000	0
Loan maturing in March 2019 with a rate of 2.15%	3,000	0
Loan maturing in April 2019 with a rate of 2.24%	3,000	0
Loan maturing in May 2019 with a rate of 2.30%	3,000	0
Loan maturing in June 2019 with a rate of 2.42%	3,000	0
Loan maturing in July 2019 with a rate of 2.41%	3,000	0
Loan maturing in August 2019 with a rate of 2.48%	3,000	0
Loan maturing in September 2019 with a rate of 2.53%	3,000	0
Loan maturing in November 2019 with a rate of 2.75%	3,000	0
Loan maturing in December 2019 with a rate of 2.77%	3,000	0
Loan maturing in January 2020 with a rate of 2.73%	3,000	0
Loan maturing in April 2020 with a rate of 4.79%	271	463
Loan maturing in June 2025 with a rate of 4.91%	644	726
Total long-term FHLB-Pittsburgh borrowings	$35,915	$ 9,189

In 2017, the Corporation had repurchase agreements with a broker-dealer that were recorded as long-term borrowings. These repurchase agreements matured in 2017, and the Corporation had no repurchase agreements with broker-dealers in 2018. Average daily repurchase agreement borrowings were $0 in 2018 and $26,112,000 in 2017. The maximum

amounts of outstanding borrowings under repurchase agreements with broker-dealers were $0 in 2018 and $27,000,000 in 2017.

13. EMPLOYEE AND POSTRETIREMENT BENEFIT PLANS

DEFINED BENEFIT PLANS

The Corporation sponsors a defined benefit health care plan that provides postretirement medical benefits and life insurance to employees who meet certain age and length of service requirements. Full-time employees no longer accrue service time toward the Corporation-subsidized portion of the medical benefits. The plan contains a cost-sharing feature which causes participants to pay for all future increases in costs related to benefit coverage. Accordingly, actuarial assumptions related to health care cost trend rates do not significantly affect the liability balance at December 31, 2018 and December 31, 2017 and are not expected to significantly affect the Corporation's future expenses. The Corporation uses a December 31 measurement date for the postretirement plan.

In an acquisition in 2007, the Corporation assumed the Citizens Trust Company Retirement Plan, a defined benefit pension plan. This plan covers certain employees who were employed by Citizens Trust Company on December 31, 2002, when the plan was amended to discontinue admittance of any future participant and to freeze benefit accruals. Information related to the Citizens Trust Company Retirement Plan has been included in the tables that follow. The Corporation uses a December 31 measurement date for this plan.

The following table shows the funded status of the defined benefit plans:

	Pension		Postretirement	
(In Thousands)	2018	2017	2018	2017
CHANGE IN BENEFIT OBLIGATION:				
Benefit obligation at beginning of year	$850	$713	$1,497	$1,555
Service cost	0	0	40	36
Interest cost	25	24	51	57
Plan participants' contributions	0	0	206	211
Actuarial loss (gain)	11	127	(192)	(103)
Benefits paid	(16)	(14)	(253)	(259)
Benefit obligation at end of year	$870	$850	$1,349	$1,497
CHANGE IN PLAN ASSETS:				
Fair value of plan assets at beginning of year	$923	$846	$0	$0
Actual return on plan assets	(60)	91	0	0
Employer contribution	0	0	47	48
Plan participants' contributions	0	0	206	211
Benefits paid	(16)	(14)	(253)	(259)
Fair value of plan assets at end of year	$847	$923	$0	$0
Funded status at end of year	$(23)	$73	$(1,349)	$(1,497)

At December 31, 2018 and 2017, the following pension plan and postretirement plan asset and liability amounts were recognized in the consolidated balance sheets:

Assets and liabilities:	Pension		Postretirement	
(In Thousands)	2018	2017	2018	2017
Other assets		$ 73		
Accrued interest and other liabilities	$23		$1,349	$1,497

At December 31, 2018 and 2017, the following items included in accumulated other comprehensive income had not been recognized as components of expense:

Items not yet recognized as a component of net periodic benefit cost:	Pension		Postretirement	
(In Thousands)	2018	2017	2018	2017
Prior service cost	$0	$0	$(279)	$(309)
Net actuarial loss (gain)	299	221	(194)	(2)

Total	$299	$221	$(473)	$(311)

For the defined benefit pension plan, amortization of the net actuarial loss is expected to be $26,000 in 2019. For the postretirement plan, the estimated amount of prior service cost that will be amortized from accumulated other comprehensive loss into net periodic benefit cost in 2019 is a reduction in expense of $31,000, and net actuarial gain of $5,000 is expected to be amortized in 2019.

The accumulated benefit obligation for the defined benefit pension plan was $870,000 at December 31, 2018 and $850,000 at December 31, 2017.

The components of net periodic benefit costs from defined benefit plans are as follows:

	Pension		Postretirement	
(In Thousands)	2018	2017	2018	2017
Service cost	$0	$0	$ 40	$ 36
Interest cost	25	24	51	57
Expected return on plan assets	(20)	(31)	0	0
Amortization of prior service cost	0	0	(30)	(31)
Recognized net actuarial loss	13	7	0	0
Total net periodic benefit cost	$18	$0	$ 61	$ 62

The weighted-average assumptions used to determine net periodic benefit cost are as follows:

	Pension		Postretirement	
	2018	2017	2018	2017
Citizens Trust Company Retirement Plan and postretirement plan:				
Discount rate	3.55%	4.05%	3.75%	4.25%
Expected return on plan assets	4.32%	6.00%	N/A	N/A
Rate of compensation increase	N/A	N/A	N/A	N/A

The weighted-average assumptions used to determine benefit obligations as of December 31, 2018 and 2017 are as follows:

	Pension		Postretirement	
	2018	2017	2018	2017
Discount rate	4.10%	3.55%	4.50%	3.75%
Rate of compensation increase	N/A	N/A	N/A	N/A

Estimated future benefit payments, including only estimated employer contributions for the postretirement plan, which reflect expected future service, are as follows:

(In Thousands)	Pension	Postretirement
2019	$ 369	$ 91
2020	15	102
2021	14	99
2022	16	104

2023	168	94
2024-2028	338	533

No estimated minimum contribution to the defined benefit pension plan is required in 2019, though the Corporation may make discretionary contributions.

The expected return on pension plan assets is a significant assumption used in the calculation of net periodic benefit cost. This assumption reflects the average long-term rate of earnings expected on the funds invested or to be invested to provide for the benefits included in the projected benefit obligation.

The fair values of pension plan assets at December 31, 2018 and 2017 are as follows:

	2018	2017
Mutual funds invested principally in:		
Cash and cash equivalents	3 %	2 %
Debt securities	40 %	37 %
Equity securities	45 %	45 %
Alternative funds	12 %	16 %
Total	100 %	100 %

C&N Bank's Trust and Financial Management Department manages the investment of the pension plan assets. The Plan's securities include mutual funds invested principally in debt securities, a diversified mix of large, mid- and small-capitalization U.S. stocks, foreign stocks and alternative asset classes such as real estate, commodities, and inflation-protected securities. The fair values of plan assets are determined based on Level 1 inputs (as described in Note 6). At December 31, 2018, the targeted asset allocation of mutual funds for the pension plan was 45% equity securities, 40% debt securities, 12% alternative assets, and 3% cash. At December 31, 2017, the targeted asset allocation of mutual funds for the pension plan was 45% equity securities, 37% debt securities, 16% alternative assets and 2% cash. The pension plan's assets do not include any shares of the Corporation's common stock.

PROFIT SHARING AND DEFERRED COMPENSATION PLANS

The Corporation has a profit sharing plan that incorporates the deferred salary savings provisions of Section 401(k) of the Internal Revenue Code. The Corporation's matching contributions to the Plan depend upon the tax deferred contributions of employees. The Corporation's total basic and matching contributions were $717,000 in 2018 and $681,000 in 2017.

The Corporation has an Employee Stock Ownership Plan (ESOP). Contributions to the ESOP are discretionary, and the ESOP uses funds contributed to purchase Corporation stock for the accounts of ESOP participants. These purchases are made on the market (not directly from the Corporation), and employees are not permitted to purchase Corporation stock under the ESOP. The ESOP includes a diversification feature, which allows participants, upon reaching age 55 and 10 years of service (as defined), to sell up to 50% of their Corporation shares over a period of 6 years. As of December 31, 2018, and 2017, there were no shares allocated for repurchase by the ESOP.

Dividends paid on shares held by the ESOP are charged to retained earnings. All Corporation shares owned through the ESOP are included in the calculation of weighted-average shares outstanding for purposes of calculating earnings per share - basic and diluted. The ESOP held 444,843 shares of Corporation stock at December 31, 2018 and 419,067 shares at December 31, 2017, all of which had been allocated to Plan participants. The Corporation's contributions to the ESOP totaled $605,000 in 2018 and $588,000 in 2017.

The Corporation has a nonqualified supplemental deferred compensation arrangement with its key officers. Charges to operating expense for officers' supplemental deferred compensation were $242,000 in 2018 and $200,000 in 2017.

The Corporation also has a nonqualified deferred compensation plan that allows selected officers the option to defer receipt of cash compensation, including base salary and any cash bonuses or other cash incentives. This nonqualified deferred compensation plan does not provide for Corporation contributions.

STOCK-BASED COMPENSATION PLANS

The Corporation has a Stock Incentive Plan for a selected group of senior officers. A total of 850,000 shares of common stock may be issued under the Stock Incentive Plan. Awards may be made under the Stock Incentive Plan in the form of qualified options ("Incentive Stock Options," as defined in the Internal Revenue Code), nonqualified options, stock appreciation rights or restricted stock. Historically through December 31, 2018, all awards made under this Plan have consisted of Incentive Stock Options or restricted stock. Incentive Stock Options have an exercise price equal to the market value of the stock at the date of grant, vest after 6 months and expire after 10 years. There are 257,560 shares available for issuance under the Stock Incentive Plan as of December 31, 2018.

Also, the Corporation has an Independent Directors Stock Incentive Plan. This plan permits awards of nonqualified stock options and/or restricted stock to non-employee directors. A total of 235,000 shares of common stock may be issued under the Independent Directors Stock Incentive Plan. The recipients' rights to exercise stock options under this plan expire 10 years from the date of grant. The exercise prices of all stock options awarded under the Independent Directors Stock Incentive Plan are equal to market value as of the dates of grant. There are 112,138 shares available for issuance under the Independent Directors Stock Incentive Plan as of December 31, 2018.

Total stock-based compensation expense is as follows:

(In Thousands)	2018	2017
Restricted stock	$855	$627
Stock options	0	0
Total	$855	$627

The following summarizes non-vested restricted stock activity for the year ended December 31, 2018:

	Number of Shares	Weighted Average Grant Date Fair Value
Outstanding, December 31, 2017	60,757	$ 23.17
Granted	34,552	$ 24.21
Vested	(27,025)	$ 23.00
Forfeited	(7,939)	$ 23.39
Outstanding, December 31, 2018	60,345	$ 23.81

Compensation cost related to restricted stock is recognized based on the market price of the stock at the grant date over the vesting period, adjusted for estimated and actual forfeitures. As of December 31, 2018, there was $591,000 total unrecognized compensation cost related to restricted stock, which is expected to be recognized over a weighted average period of 1.3 years.

In 2018 and 2017, the Corporation awarded shares of restricted stock under the Stock Incentive Plan, as follows:

	2018	2017
Executive officers	16,578	14,897
Other employees	8,888	7,415
Total	25,466	22,312

Restricted stock awards in 2016 through 2018 to employees other than executive officers vest over a three-year term, subject to continued employment and satisfactory job performance, with no additional performance conditions (time vesting). Restricted stock awards in 2016 through 2018 to Executive Officers vest over a three-year term, with vesting for half of the shares based on time vesting and vesting for half of the shares based on time vesting and upon the Corporation meeting an annual return on average equity (“ROAE”) performance ratio, as defined. The minimum level for satisfying the performance condition defined in the 2018 and 2017 awards was an ROAE at the 50th percentile of the defined Peer Group’s results. The Corporation met the performance condition for 2018, as the Corporation’s return on average equity ROAE, as defined, was in the 58th percentile of the Peer Group’s results for the 12-month period ended September 30, 2018. In 2017, the Corporation did not meet the performance condition, as the Corporation’s ROAE was in the 37th percentile of the defined Peer Group’s results for the 12-month period ended September 30, 2017. For purposes of the 2018 and 2017 awards, the Peer Group included all publicly traded commercial banks and bank holding companies with headquarters in Pennsylvania, New York, New Jersey and Ohio, and total assets ranging between $750 million and $3.5 billion as of the beginning of the applicable period.

Most of the restricted stock awards issued under this Plan prior to 2016, for which a portion of the awards vested in 2018 and 2017, include a condition that the Corporation must meet an annual targeted ROAE performance ratio, as defined, in order for participants to vest. In 2018 and 2017, the Corporation met the ROAE target applicable to these awards, which is based on the Corporation's ROAE for 12-month periods ended September 30 of each year as compared to the applicable peer group of bank holding companies based in Pennsylvania and one local competitor based in New York with total assets of $750 million to $2 billion as of the beginning of each applicable period.

In 2018, a total of 9,086 restricted shares were granted under the Independent Directors Stock Incentive Plan, subject to time vesting over a term of one year. In 2017, a total of 8,470 restricted shares were granted under the Independent Directors Stock Incentive Plan, also with time vesting over a term of one year.

There were no stock options granted in 2018 or 2017. A summary of stock option activity is presented below:

	2018		2017	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding, beginning of year	165,660	$ 18.49	202,037	$ 18.58
Granted	0		0	
Exercised	(41,210)	$ 18.69	(24,976)	$ 17.50
Forfeited	0		(635)	$ 19.88
Expired	(8,736)	$ 17.50	(10,766)	$ 22.33
Outstanding, end of year	115,714	$ 18.49	165,660	$ 18.49
Options exercisable at year-end	115,714	$ 18.49	165,660	$ 18.49
Weighted-average fair value of options forfeited		N/A		$ 4.21

The weighted-average remaining contractual term of outstanding stock options at December 31, 2018 was 3.3 years. The aggregate intrinsic value of stock options outstanding was $918,000 at December 31, 2018. The total intrinsic value of options exercised was $291,000 in 2018 and $164,000 in 2017.

The Corporation has issued shares from treasury stock for almost all stock option exercises through December 31, 2018. Management does not anticipate that stock repurchases will be necessary to accommodate stock option exercises in 2019.

In January 2019, the Corporation awarded 40,517 shares of restricted stock under the Stock Incentive Plan and 7,620 shares of restricted stock under the Independent Directors Stock Incentive Plans. The 2019 restricted stock awards under the Stock Incentive Plan vest ratably over three years and vesting for approximately one-half of the 27,380 restricted shares awarded to Executive Officers depends on the Corporation meeting a ROAE target each year. The 2019 restricted stock issued under the Independent Directors Stock Incentive Plan vests over one year. Total estimated stock-based compensation for 2019 is $880,000. The restricted stock awards made in January 2019 are not included in the tables above.

14. INCOME TAXES

The net deferred tax asset at December 31, 2018 and 2017 represents the following temporary difference components:

(In Thousands)	December 31, 2018	December 31, 2017
Deferred tax assets:		
Unrealized holding losses on securities:		
Included in accumulated other comprehensive loss	$ 1,145	$ 843
Included in retained earnings	0	(337)
Allowance for loan losses	2,005	1,894
Other deferred tax assets	2,049	1,726
Total deferred tax assets	5,199	4,126
Deferred tax liabilities:		
Defined benefit plans - ASC 835:		
Included in accumulated other comprehensive loss	37	31
Included in retained earnings	0	(12)
Bank premises and equipment	907	751
Core deposit intangibles	2	3
Other deferred tax liabilities	143	64

Total deferred tax liabilities	1,089	837
Deferred tax asset, net	$ 4,110	$ 3,289

The provision for income taxes includes the following:

(In thousands)	2018	2017
Currently payable	$4,350	$4,938
Tax expense resulting from allocations of certain tax benefits as a reduction in other assets	87	63
Deferred	(187)	2,155
Total provision	$4,250	$7,156

A reconciliation of income tax at the statutory rate to the Corporation's effective rate is as follows (amounts in thousands):

	2018		2017	
(Amounts in thousands)	Amount	%	Amount	%
Expected provision	$5,515	21.00	$7,207	35.00
Tax-exempt interest income	(1,046)	(3.98)	(1,817)	(8.82)
Increase in cash surrender value and other income from life insurance, net	(170)	(0.65)	(121)	(0.59)
ESOP dividends	(98)	(0.37)	(154)	(0.75)
State income tax, net of federal benefit	125	0.48	70	0.34
Effect of tax rate change	0	0.00	2,159	10.49
Other, net	(76)	(0.29)	(188)	(0.92)
Effective income tax provision	$4,250	16.18	$7,156	34.75

In December 2017, the Corporation recognized an adjustment in the carrying value of the net deferred tax asset as a result of a reduction in the federal corporate income tax rate to 21%, effective January 1, 2018, from the 35% marginal rate that had previously been in effect. At December 31, 2017, the portion of the adjustment attributable to items of accumulated other comprehensive income (loss) were stranded in retained earnings, including components related to unrealized losses on securities and defined benefit plans. As described in Note 2, the Corporation elected early adoption of ASU 2018-02, resulting in a reclassification between two categories of stockholders' equity at January 1, 2018, with an increase of $325,000 in retained earnings and an increase in accumulated other comprehensive loss for the same amount. Management believes the Corporation's accounting for the effects of the reduction in the federal income tax rate is materially complete at December 31, 2018.

The Corporation has investments in three limited partnerships that manage affordable housing projects that have qualified for the federal low-income housing tax credit. The Corporation's expected return from these investments is based on the receipt of tax credits and tax benefits from deductions of operating losses. The Corporation uses the effective yield method to account for these investments, with the benefits recognized as a reduction of the provision for income taxes. For two of the three limited partnership investments, the tax credits have been received in full in prior years, and the Corporation has fully realized the benefits of the credits and amortized its initial investments in the partnerships. The most recent affordable housing project was completed in 2013, and the Corporation received tax credits in 2013 through 2018 and expects to continue to receive tax credits annually through 2022. The carrying amount of the Corporation's investment is $498,000 at December 31, 2018 and $608,000 at December 31, 2017 (included in Other Assets in the consolidated balance sheets). For 2018, the estimated amount of tax credits and other tax benefits to be received is $150,000 and the amount recognized as a reduction of the provision for income taxes is $54,000. In 2017, the Corporation received tax credits and other tax benefits totaling $157,000 and recognized a reduction of the provision for income tax of $73,000.

The Corporation has no unrecognized tax benefits, nor pending examination issues related to tax positions taken in preparation of its income tax returns. With limited exceptions, the Corporation is no longer subject to examination by the Internal Revenue Service for years prior to 2014.

15. RELATED PARTY TRANSACTIONS

Loans to executive officers, directors of the Corporation and its subsidiaries and any associates of the foregoing persons are as follows:

(In Thousands)	Beginning Balance	New Loans	Repayments	Other Changes	Ending Balance
11 directors, 8 executive officers 2018	$ 14,412	$3,553	$ (1,417)	$ (1,404)	$15,144
12 directors, 7 executive officers 2017	11,414	2,128	(2,061)	2,931	14,412

In the table above, other changes represent net changes in the balance of existing lines of credit and transfers in and out of the related party category.

Deposits from related parties held by the Corporation amounted to $7,479,000 at December 31, 2018 and $7,171,000 at December 31, 2017.

16. OFF-BALANCE SHEET RISK

The Corporation is a party to financial instruments with off-balance sheet risk in the normal course of business to meet the financial needs of its customers. These financial instruments include commitments to extend credit and standby letters of credit. These instruments involve, to varying degrees, elements of credit, interest rate or liquidity risk in excess of the amount recognized in the consolidated balance sheets. The contract amounts of these instruments express the extent of involvement the Corporation has in particular classes of financial instruments.

The Corporation's exposure to credit loss from nonperformance by the other party to the financial instruments for commitments to extend credit and standby letters of credit is represented by the contractual amount of these instruments. The Corporation uses the same credit policies in making commitments and conditional obligations as it does for on-balance sheet instruments.

Financial instruments whose contract amounts represent credit risk at December 31, 2018 and 2017 are as follows:

(In Thousands)	2018	2017
Commitments to extend credit	$191,672	$187,919
Standby letters of credit	7,227	7,445

Commitments to extend credit are legally binding agreements to lend to customers. Commitments generally have fixed expiration dates or other termination clauses and may require payment of fees. Since many of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future liquidity requirements. The Corporation evaluates each customer's creditworthiness on a case-by-case basis. The amount of collateral obtained, if deemed necessary by the Corporation, for extensions of credit is based on management's credit assessment of the counterparty.

Standby letters of credit are conditional commitments issued by the Corporation guaranteeing performance by a customer to a third party. Those guarantees are issued primarily to support public and private borrowing arrangements, including commercial paper, bond financing and similar transactions. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities to customers. Some of the standby letters of credit are collateralized by real estate or other assets, and others are unsecured. The extent to which proceeds from liquidation of collateral would be expected to cover the maximum potential amount of future payments related to standby letters of credit is not estimable. The Corporation has recorded no liability associated with standby letters of credit as of December 31, 2018 and 2017.

Standby letters of credit as of December 31, 2018 expire as follows:

Year of Expiration	(In Thousands)
2019	$ 7,020
2020	207
Total	$ 7,227

17. CONTINGENCIES

In the normal course of business, the Corporation is subject to pending and threatened litigation in which claims for monetary damages are asserted. In management's opinion, the Corporation's financial position and results of operations would not be materially affected by the outcome of these legal proceedings.

18. REGULATORY MATTERS

As required by the Economic Growth, Regulatory Relief, and Consumer Protection Act in August 2018, the Federal Reserve Board issued an interim final rule that expanded applicability of the Board's small bank holding company policy statement. The interim final rule raised the policy statement's asset threshold from $1 billion to $3 billion in total consolidated assets for a bank holding company or savings and loan holding company that: (1) is not engaged in significant nonbanking activities; (2) does not conduct significant off-balance sheet activities; and (3) does not have a material amount of debt or equity securities, other than trust-preferred securities, outstanding. The interim final rule provides that, if warranted for supervisory purposes, the Federal Reserve may exclude a company from the threshold increase. Management believes the Corporation meets the conditions of the Federal Reserve's small bank holding company policy statement and is therefore excluded from consolidated capital requirements at December 31, 2018.

C&N Bank remains subject to regulatory capital requirements administered by the federal banking agencies. Failure to meet minimum capital requirements can initiate certain mandatory - and possibly additional discretionary - actions by regulators that, if undertaken, could have a direct material effect on the Corporation's financial statements. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, C&N Bank must meet specific capital guidelines that involve quantitative measures of their assets, liabilities and certain off-balance sheet items as calculated under regulatory accounting practices. The capital amounts and classification are also subject to qualitative judgments by the regulators about components, risk weightings and other factors.

Details concerning capital ratios at December 31, 2018 and December 31, 2017 are presented below. Management believes, as of December 31, 2018, that C&N Bank meets all capital adequacy requirements to which it is subject and maintains a capital conservation buffer (described in more detail below) that allows the Bank to avoid limitations on capital distributions, including dividend payments and certain discretionary bonus payments to executive officers. Further, as reflected in the table below, the Corporation's and C&N Bank's capital ratios at December 31, 2018 and December 31, 2017 exceed the Corporation's Board policy threshold levels.

	Actual		Minimum Capital Requirement		Minimum To Maintain Capital Conservation Buffer at Reporting Date		Minimum To Be Well Capitalized Under Prompt Corrective Action Provisions		Minimum To Meet the Corporation's Policy Thresholds	
(Dollars in Thousands)	**Amount**	**Ratio**	**Amount**	**Ratio**	**Amount**	**Ratio**	**Amount**	**Ratio**	**Amount**	**Ratio**
December 31, 2018:										
Total capital to risk-weighted assets:										
Consolidated	$199,226	24.42%	N/A	N/A	N/A	N/A	N/A	N/A	$85,653	[3]10.5%
C&N Bank	176,499	21.75%	64,916	[3]8 %	80,130	[3]9.875%	81,145	[3]10 %	85,202	[3]10.5%
Tier 1 capital to risk-weighted assets:										
Consolidated	189,589	23.24%	N/A	N/A	N/A	N/A	N/A	N/A	69,338	[3]8.5 %
C&N Bank	166,862	20.56%	48,687	[3]6 %	63,901	[3]7.875%	64,916	[3]8 %	68,976	[3]8.5 %
Common equity tier 1 capital to risk-weighted assets:										
Consolidated	189,589	23.24%	N/A	N/A	N/A	N/A	N/A	N/A	57,102	[3]7 %
C&N Bank	166,862	20.56%	36,515	[3]4.5 %	51,730	[3]6.375%	52,744	[3]6.5 %	56,801	[3]7 %
Tier 1 capital to average assets:										
Consolidated	189,589	14.78%	N/A	N/A	N/A	N/A	N/A	N/A	102,634	[3]8 %
C&N Bank	166,862	13.16%	50,715	[3]4%	N/A	N/A	63,394	[3]5 %	101,430	[3]8 %
December 31, 2017:										
Total capital to risk-weighted assets:										
Consolidated	$187,097	23.07%	$64,872	[3]8 %	$75,008	[3]9.25 %	$81,090	[3]10 %	$85,144	[3]10.5%
C&N Bank	165,142	20.47%	64,528	[3]8 %	74,611	[3]9.25 %	80,661	[3]10 %	84,694	[3]10.5%
Tier 1 capital to risk-weighted assets:										
Consolidated	177,981	21.95%	48,654	[3]6 %	58,790	[3]7.25 %	64,872	[3]8 %	68,926	[3]8.5 %
C&N Bank	156,026	19.34%	48,396	[3]6 %	58,479	[3]7.25 %	64,528	[3]8 %	68,561	[3]8.5 %

Common equity tier 1 capital to risk-weighted assets:												
Consolidated	177,981	21.95%	36,490	³4.5	%	46,626	³5.75	%	52,708	³6.5	%	56,763	³7	%
C&N Bank	156,026	19.34%	36,297	³4.5	%	46,380	³5.75	%	52,429	³6.5	%	56,462	³7	%
Tier 1 capital to average assets:												
Consolidated	177,981	14.23%	50,023	³4	%	N/A	N/A		62,529	³5	%	62,529	³5	%
C&N Bank	156,026	12.63%	49,418	³4	%	N/A	N/A		61,772	³5	%	61,772	³5	%

In July 2013, the federal regulatory authorities issued a new capital rule based, in part, on revisions developed by the Basel Committee on Banking Supervision to the Basel capital framework (Basel III). Generally, the new rule implemented higher minimum capital requirements, revised the definition of regulatory capital components and related calculations, added a new common equity tier 1 capital ratio, implemented a new capital conservation buffer, increased the risk weighting for past due loans and provided a transition period for several aspects of the new rule.

The current (new) capital rule provides that, in order to avoid limitations on capital distributions, including dividend payments and certain discretionary bonus payments to executive officers, a banking organization must hold a capital conservation buffer composed of common equity tier 1 capital above its minimum risk-based capital requirements. The buffer is measured relative to risk-weighted assets. The 2018 minimum required capital ratios and capital conservation buffer needed in order to fully avoid limitations on capital distributions, along with the remaining transition schedule for new ratios and the capital conservation buffer, is as follows:

	As of January 1:	
	2018	2019
Minimum common equity tier 1 capital ratio	4.5 %	4.5 %
Common equity tier 1 capital conservation buffer	1.875 %	2.5 %
Minimum common equity tier 1 capital ratio plus capital conservation buffer	6.375 %	7.0 %
Phase-in of most deductions from common equity tier 1 capital	100 %	100 %
Minimum tier 1 capital ratio	6.0 %	6.0 %
Minimum tier 1 capital ratio plus capital conservation buffer	7.875 %	8.5 %
Minimum total capital ratio	8.0 %	8.0 %
Minimum total capital ratio plus capital conservation buffer	9.875 %	10.5 %

As fully phased in, a banking organization with a buffer greater than 2.5% would not be subject to additional limits on dividend payments or discretionary bonus payments; however, a banking organization with a buffer less than 2.5% would be subject to increasingly stringent limitations as the buffer approaches zero. The new rule also prohibits a banking organization from making dividend payments or discretionary bonus payments if its eligible retained income is negative in that quarter and its capital conservation buffer ratio was less than 2.5% as of the beginning of that quarter. Eligible net income is defined as net income for the four calendar quarters preceding the current calendar quarter, net of any distributions and associated tax effects not already reflected in net income. A summary of payout restrictions based on the capital conservation buffer is as follows:

Capital Conservation Buffer (as a % of risk-weighted assets)	Maximum Payout (as a % of eligible retained income)
Greater than 2.5%	No payout limitation applies
≤2.5% and >1.875%	60 %
≤1.875% and >1.25%	40 %
≤1.25% and >0.625%	20 %
≤0.625%	0 %

At December 30, 2018, C&N Bank's Capital Conservation Buffer, determined based on the minimum total capital ratio, was 13.75%.

Banking regulators limit the amount of dividends that may be paid by C&N Bank to the Corporation. Retained earnings against which dividends may be paid without prior approval of the banking regulators amounted to approximately $98,939,000 at December 31, 2018, subject to the minimum capital ratio requirements noted above.

Restrictions imposed by federal law prohibit the Corporation from borrowing from C&N Bank unless the loans are secured in specific amounts. Such secured loans to the Corporation are generally limited to 10% of C&N Bank's tangible stockholder's equity (excluding accumulated other comprehensive loss) or $16,686,000 at December 31, 2018.

76

19. PARENT COMPANY ONLY

The following is condensed financial information for Citizens & Northern Corporation:

CONDENSED BALANCE SHEET	December 31,	
(In Thousands)	2018	2017
ASSETS		
Cash	$7,389	$6,790
Investment in subsidiaries:		
Citizens & Northern Bank	174,795	166,576
Citizens & Northern Investment Corporation	11,697	11,588
Bucktail Life Insurance Company	3,525	3,488
Other assets	6	15
TOTAL ASSETS	$197,412	$188,457
LIABILITIES AND STOCKHOLDERS' EQUITY		
Other liabilities	$44	$14
Stockholders' equity	197,368	188,443
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$197,412	$188,457

CONDENSED INCOME STATEMENT		
(In Thousands)	2018	2017
Dividends from Citizens & Northern Bank	$12,800	$12,022
Expenses	(681)	(233)
Income before equity in undistributed income of subsidiaries	12,119	11,789
Equity in undistributed income of subsidiaries	9,894	1,645
NET INCOME	$22,013	$13,434

CONDENSED STATEMENT OF CASH FLOWS		
(In Thousands)	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$22,013	$13,434
Adjustments to reconcile net income to net cash provided by operating activities:		
Equity in undistributed net income of subsidiaries	(9,894)	(1,645)
Decrease (increase) in other assets	7	(11)
Increase in other liabilities	30	1
Net Cash Provided by Operating Activities	12,156	11,779
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from sale of treasury stock	189	128
Tax cost from compensation plans, net	0	(5)

Dividends paid	(11,746)	(11,145)
Net Cash Used in Financing Activities	(11,557)	(11,022)
INCREASE IN CASH AND CASH EQUIVALENTS	599	757
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	6,790	6,033
CASH AND CASH EQUIVALENTS, END OF YEAR	$7,389	$6,790

20. SUMMARY OF QUARTERLY CONSOLIDATED FINANCIAL DATA (Unaudited)

The following table presents summarized quarterly financial data for 2018 and 2017:

SUMMARY OF QUARTERLY CONSOLIDATED FINANCIAL DATA

(In Thousands Except Per Share Data) (Unaudited)

	2018 Quarter Ended			
	March 31, 2018	June 30, 2018	Sept. 30, 2018	Dec. 31, 2018
Interest income	$11,890	$12,334	$12,800	$13,304
Interest expense	993	1,079	1,241	1,312
Net interest income	10,897	11,255	11,559	11,992
Provision (credit) for loan losses	292	(20)	60	252
Net interest income after provision (credit) for loan losses	10,605	11,275	11,499	11,740
Other income	4,406	4,689	4,462	5,040
Gain on restricted equity security	0	1,750	571	0
Net losses on available-for-sale securities	0	(282)	(2)	(4)
Other expenses	9,895	9,684	9,833	10,074
Income before income tax provision	5,116	7,748	6,697	6,702
Income tax provision	741	1,377	1,111	1,021
Net income	$4,375	$6,371	$5,586	$5,681
Net income attributable to common shares	$4,352	$6,339	$5,558	$5,654
Net income per share – basic	$0.36	$0.52	$0.45	$0.46
Net income per share – diluted	$0.36	$0.52	$0.45	$0.46

	2017 Quarter Ended			
	March 31, 2017	June 30, 2017	Sept. 30, 2017	Dec. 31, 2017
Interest income	$11,112	$11,340	$11,626	$11,785
Interest expense	953	978	985	999
Net interest income	10,159	10,362	10,641	10,786
Provision for loan losses	452	4	322	23
Net interest income after provision for loan losses	9,707	10,358	10,319	10,763
Other income	3,864	4,106	4,066	4,117
Net gains on available-for-sale securities	145	107	5	0
Other expenses	9,298	9,076	9,192	9,401

Income before income tax provision	4,418	5,495	5,198	5,479
Income tax provision	984	1,374	1,262	3,536
Net income	$3,434	$4,121	$3,936	$1,943
Net income attributable to common shares	$3,416	$4,100	$3,916	$1,933
Net income per share – basic	$0.28	$0.34	$0.32	$0.16
Net income per share – diluted	$0.28	$0.34	$0.32	$0.16

21. REVENUE RECOGNITION

As disclosed in Note 2, as of January 1, 2018, the Corporation adopted ASU 2014-09, Revenue from Contracts with Customers (Topic 606), as well as subsequent ASUs that modified ASC 606. The Company has elected to apply the ASU and all related ASUs using the modified retrospective implementation method. The implementation of the guidance had no material impact on the measurement or recognition of revenue of prior periods. The Corporation generally fully satisfies its performance obligations on its contracts with customers as services are rendered and the transaction prices are typically fixed; charged either on a periodic basis or based on activity. Because performance obligations are satisfied as services are rendered and the transaction prices are fixed, there is little judgment involved in applying Topic 606 that significantly affects the determination of the amount and timing of revenue from contracts with customers.

Additional disclosures related to the Corporation's largest sources of noninterest income within the consolidated statements of income that are subject to ASC 606 are as follows:

Trust and financial management revenue – C&N Bank's trust division provides a wide range of financial services, including wealth management services for individuals, businesses and retirement funds, administration of 401(k) and other retirement plans, retirement planning, estate planning and estate settlement services. Trust clients are located primarily within the Corporation's geographic markets. Assets held in a fiduciary capacity by C&N Bank are not the Corporation's assets and are therefore not included in the consolidated balance sheets. The fair value of trust assets under management was approximately $862,517,000 at December 31, 2018 and $916,580,000 at December 31, 2017. Trust and financial management revenue is included within noninterest income in the consolidated statements of income.

Trust revenue is recorded on a cash basis, which is not materially different from the accrual basis. The majority (approximately 81%, based on annual 2018 results) of trust revenue is earned and collected monthly, with the amount determined based on a percentage of the fair value of the trust assets under management. Wealth management fees are contractually agreed with each customer, and fee levels vary based mainly on the size of assets under management. The services provided under such a contract represent a single performance obligation under the ASU because it embodies a series of distinct goods or services that are substantially the same and have the same pattern of transfer to the customer. None of the contracts with trust customers provide for incentive-based fees. In addition to wealth management fees, trust revenue includes fees for provision of services, including employee benefit plan administration, tax return preparation and estate planning and settlement. Fees for such services are billed based on contractual arrangements or established fee schedules and are typically billed upon completion of providing such services. The costs of acquiring trust customers are incremental and recognized within noninterest expense in the consolidated statements of income.

Service charges on deposit accounts - Deposits are included as liabilities in the consolidated balance sheets. Service charges on deposit accounts include: overdraft fees, which are charged when customers overdraw their accounts beyond available funds; automated teller machine (ATM) fees charged for withdrawals by deposit customers from other financial institutions' ATMs; and a variety of other monthly or transactional fees for services provided to retail and business customers, mainly associated with checking accounts. All deposit liabilities are considered to have one-day terms and therefore related fees are recognized in income at the time when the services are provided to the customers. Incremental costs of obtaining deposit contracts are not significant and are recognized as expense when incurred within noninterest expense in the consolidated statements of income.

Interchange revenue from debit card transactions – The Corporation issues debit cards to consumer and business customers with checking, savings or money market deposit accounts. Debit card and ATM transactions are processed via electronic systems that involve several parties. The Corporation's debit card and ATM transaction processing is executed via contractual arrangements with payment processing networks, a processor and a settlement bank. As described above, all deposit liabilities are considered to have one-day terms and therefore interchange revenue from

customers' use of their debit cards to initiate transactions are recognized in income at the time when the services are provided and related fees received in the Corporation's deposit account with the settlement bank. Incremental costs associated with ATM and interchange processing are recognized as expense when incurred within noninterest expense in the consolidated statements of income.

22. PENDING MERGER

On September 28, 2018, the Corporation, along with Monument Bancorp, Inc. ("Monument"), announced the signing of an Agreement and Plan of Merger. Monument is the parent company of Monument Bank, a commercial bank which operates two community bank offices and one loan production office in Bucks County, Pennsylvania. As of December 31, 2018, Monument reported total assets of $363 million. Under the terms of the Agreement and Plan of Merger, Monument will merge into the Corporation, and Monument Bank will merge into C&N Bank. In the transaction, Monument shareholders will elect to receive either 1.0144 shares of Corporation common stock or $28.10 in cash for each share of Monument common stock owned, subject to proration to ensure that, overall, 20% of the Monument shares will be converted into cash and 80% of the Monument shares will be converted into Corporation stock. The estimated total purchase consideration would be valued at approximately $42.7 million based on the closing price of the Corporation's common stock on September 27, 2018. The transaction, which has been approved by the Board of Directors of both companies, is expected to be completed during the second quarter 2019. Consummation of the Merger is subject to approval by Monument's shareholders, regulatory approvals and other customary conditions of closing.

Report of Independent Registered Public Accounting Firm

Stockholders and Board of Directors of

Citizens & Northern Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Citizens & Northern Corporation and subsidiaries (collectively, the "Corporation") as of December 31, 2018 and 2017 and the related consolidated statements of income, comprehensive income, changes in stockholders' equity, and cash flows, for the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). We have also audited the Corporation's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control-Integrated Framework: (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO").

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Corporation as of December 31, 2018 and 2017, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control-Integrated Framework: (2013)* issued by COSO.

Basis for Opinions

The Corporation's management is responsible for these consolidated financial statements, for maintaining effective control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Corporation's consolidated financial statements and an opinion on the Corporation's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Baker Tilly Virchow Krause, LLP

We have served as the Corporation’s auditor since 1979.

Williamsport, Pennsylvania

February 21, 2019

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None

ITEM 9A. CONTROLS AND PROCEDURES

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

The Corporation's management, under the supervision of and with the participation of the Corporation's Chief Executive Officer and Chief Financial Officer, has carried out an evaluation of the design and effectiveness of the Corporation's disclosure controls and procedures as defined in Rule 13a-15(e) and Rule 15d-15(e) of the Securities Exchange Act of 1934 as of the end of the period covered by this report. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, the Corporation's disclosure controls and procedures are effective to ensure that all material information required to be disclosed in reports the Corporation files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms.

There were no significant changes in the Corporation's internal control over financial reporting that occurred during the period covered by this report that has materially affected, or that is reasonably likely to affect, our internal control over financial reporting.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The Corporation's management is responsible for establishing and maintaining effective internal control over financial reporting, as that term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). The Corporation's system of internal control over financial reporting has been designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. The Corporation's internal control over financial reporting includes those policies and procedures that: (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Corporation's assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements

in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures of the Corporation are being made only in accordance with authorizations of the Corporation's management and directors; and (3) provide reasonable assurance regarding prevention, or timely detection and correction of unauthorized acquisition, use or disposition of the Corporation's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect and correct misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

The Corporation's management assessed the effectiveness of the Corporation's internal control over financial reporting as of December 31, 2018, based on the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control – Integrated Framework* (2013). Based on that assessment, we concluded that, as of December 31, 2018, the Corporation's internal control over financial reporting is effective based on the criteria established in *Internal Control – Integrated Framework* (2013).

Baker Tilly Virchow Krause, LLP, the independent registered public accounting firm that audited the Corporation's consolidated financial statements, has issued an audit report on the Corporation's internal control over financial reporting as of December 31, 2018. That report appears immediately prior to this report.

February 21, 2019 By: /s/ J. Bradley Scovill
Date President and Chief Executive Officer

February 21, 2019 By: /s/ Mark A. Hughes
Date Treasurer and Chief Financial Officer

ITEM 9B. OTHER INFORMATION

There was no information the Corporation was required to disclose in a report on Form 8-K during the fourth quarter 2018 that was not disclosed.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information concerning Directors and Executive Officers is incorporated herein by reference to disclosure under the captions “Proposal 1 - Election of Directors,” “Executive Officers,” “Information Concerning Security Ownership” and “Meetings and Committees of the Board of Directors” of the Corporation’s proxy statement dated March 8, 2019 for the annual meeting of stockholders to be held on April 18, 2019.

The Corporation’s Board of Directors has adopted a Code of Ethics, available on the Corporation’s web site at www.cnbankpa.com for the Corporation’s employees, officers and directors. (The provisions of the Code of Ethics are also included in the Corporation’s employee handbook.)

ITEM 11. EXECUTIVE COMPENSATION

Information concerning executive compensation is incorporated herein by reference to disclosure under the captions “Compensation Discussion and Analysis” and “Executive Compensation Tables” of the Corporation’s proxy statement dated March 8, 2019 for the annual meeting of stockholders to be held on April 18, 2019.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information concerning security ownership of certain beneficial owners and management is incorporated herein by reference to disclosure under the caption “Beneficial Ownership of Executive Officers and Directors” of the

Corporation’s proxy statement dated March 8, 2019 for the annual meeting of stockholders to be held on April 18, 2019.

“Equity Compensation Plan Information” as required by Item 201(d) of Regulation S-K is incorporated by reference herein from Item 5 (Market for Registrant’s Common Equity and Related Stockholder Matters) of this Form 10-K.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information concerning loans and deposit balances with Directors and Executive Officers is provided in Note 15 to the Consolidated Financial Statements, which is included in Part II, Item 8 of this Annual Report on Form 10-K. Additional information, including information concerning director independence, is incorporated herein by reference to disclosure appearing under the captions “Director Independence” and "Related Person Transaction and Policies" of the Corporation's proxy statement dated March 8, 2019 for the annual meeting of stockholders to be held on April 18, 2019.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information concerning services provided by the Corporation’s independent auditor Baker Tilly Virchow Krause, LLP, the audit committee’s pre-approval policies and procedures for such services, and fees paid by the Corporation to that firm, is incorporated herein by reference to disclosure under the caption “Fees of Independent Public Accountants” of the Corporation’s proxy statement dated March 8, 2019 for the annual meeting of stockholders to be held on April 18, 2019.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) (1). The following consolidated financial statements are set forth in Part II, Item 8:

	Page
Report of Independent Registered Public Accounting Firm	80-81
Financial Statements:	
Consolidated Balance Sheets - December 31, 2018 and 2017	35
Consolidated Statements of Income - Years Ended December 31, 2018 and 2017	36
Consolidated Statements of Comprehensive Income - Years Ended December 31, 2018 and 2017	37
Consolidated Statements of Changes in Stockholders' Equity - Years Ended December 31, 2018 and 2017	38
Consolidated Statements of Cash Flows - Years Ended December 31, 2018 and 2017	39
Notes to Consolidated Financial Statements	40-79

(a)(2) Financial statement schedules are not applicable or included in the financial statements or related notes.

2. Plan of acquisition, reorganization, arrangement, liquidation or succession	Not applicable
3. (i) Articles of Incorporation	Incorporated by reference to Exhibit 3.1 of the Corporation's Form 8-K filed September 21, 2009
3. (ii) By-laws	Incorporated by reference to Exhibit 3.1 of the Corporation's Form 8-K filed April 19, 2013
4. Instruments defining the rights of Security holders, including Indentures	Not applicable
9. Voting trust agreement	Not applicable
10. Material contracts:	

10.1	Form of Performance-Based Restricted Stock agreement Dated January 17, 2019 between the Corporation and Executive Officers pursuant to the Citizens & Northern Corporation Stock Incentive Plan	Filed herewith
10.2	Form of Time-Based Restricted Stock agreement Dated January 17, 2019 between the Corporation and Executive Officers pursuant to the Citizens & Northern Corporation Stock Incentive Plan	Filed herewith
10.3	Form of Restricted Stock agreement dated January 3, 2019 between the Corporation and its independent directors pursuant to the Citizens & Northern Corporation Independent Directors Stock Incentive Plan	Filed herewith
10.4	2019 Annual Performance Incentive Award Plan	Filed herewith

10.5	2019 Annual Performance Incentive Award Plan - Mortgage Lenders	Filed herewith
10.6	Deferred Compensation Agreement dated December 17, 2015	Incorporated by reference to Exhibit 10.8 filed with Corporation's 10-K on February 15, 2018
10.7	Second Amendment to Employment Agreement dated August 24, 2018 between the Corporation and J. Bradley Scovill	Incorporated by reference to Exhibit 10.1 filed with Corporation's Form 8-K on August 24, 2018
10.8	First Amendment to Employment Agreement dated June 26, 2017 between the Corporation and J. Bradley Scovill	Incorporated by reference to Exhibit 10.1 filed with Corporation's Form 8-K on June 27, 2017
10.9	Employment agreement dated March 2, 2015 between the Corporation and J. Bradley Scovill	Incorporated by reference to Exhibit 10.1 filed with Corporation's Form 8-K on February 9, 2015
10.10	Employment agreement dated September 19, 2013 between the Corporation and Mark A. Hughes	Incorporated by reference to Exhibit 10.2 filed with Corporation's Form 8-K on September 19, 2013
10.11	Employment agreement dated September 19, 2013 between the Corporation and Harold F. Hoose, III	Incorporated by reference to Exhibit 10.3 filed with Corporation's Form 8-K on September 19, 2013
10.12	Employment agreement dated September 19, 2013 between the Corporation and Deborah E. Scott	Incorporated by reference to Exhibit 10.4 filed with Corporation's Form 8-K on September 19, 2013
10.13	Form of Indemnification Agreement dated September 20, 2018 between the Corporation and J. Bradley Scovill	Incorporated by reference to Exhibit 10.1 filed with Corporation's Form 10-Q on November 1, 2018
10.14	Form of Indemnification Agreement dated January 9, 2018 between the Corporation and Tracy E. Watkins	Incorporated by reference to Exhibit 10.6 filed with Corporation's 10-K on February 15, 2018
10.15	Form of Indemnification Agreement dated February 11, 2015 between the Corporation and Stan R. Dunsmore	Incorporated by reference to Exhibit 10.9 filed with Corporation's 10-K on February 26, 2015
10.16	Form of Indemnification Agreement dated January 2, 2013 between the Corporation and Shelley L. D'Haene	Incorporated by reference to Exhibit 10.5 filed with Corporation's Form 10-K on February 21, 2013
10.17	Form of Indemnification Agreement dated January 19, 2011 between the Corporation and John M. Reber	Incorporated by reference to Exhibit 10.6 filed with Corporation's Form 10-K on Feb. 28, 2011
10.18	Form of Indemnification Agreements dated May 2004 between the Corporation and the Directors and certain	Incorporated by reference to Exhibit 10.1 filed with Corporation's 10-K on March 14, 2005

	officers	
10.19	Change in Control Agreement dated January 9, 2018 between the Corporation and Tracy E. Watkins	Incorporated by reference to Exhibit 10.7 filed with Corporation's 10-K on February 15, 2018
10.20	Change in Control Agreement dated March 17, 2015 between the Corporation and Stan R. Dunsmore	Incorporated by reference to Exhibit 10.1 filed with Corporation's Form 10-Q on May 8, 2015
10.21	Change in Control Agreement dated January 2, 2013 between the Corporation and Shelley L. D'Haene	Incorporated by reference to Exhibit 10.7 filed with Corporation's Form 10-K on February 21, 2013
10.22	Change in Control Agreement dated January 20, 2005 between the Corporation and John M. Reber	Incorporated by reference to Exhibit 10.18 filed with Corporation's Form 10-K on February 18, 2016
10.23	Change in Control Agreement dated December 31, 2003 between the Corporation and Thomas L. Rudy, Jr.	Incorporated by reference to Exhibit 10.2 filed with the Corporation's Form 10-K on March 14, 2005

10.24	Executive Compensation Recoupment Policy dated September 19, 2013	Incorporated by reference to Exhibit 10.5 filed with Corporation’s Form 8-K on September 19, 2013
10.25	Fifth Amendment to Citizens & Northern Corporation Stock Incentive Plan	Incorporated by reference to Exhibit 10.1 filed with Form 8-K on December 21, 2018
10.26	Fourth Amendment to Citizens & Northern Corporation Stock Incentive Plan and Annual Incentive Plan	Incorporated by reference to Exhibit 10.6 filed with Corporation's Form 8-K on September 19, 2013
10.27	Third Amendment to Citizens & Northern Corporation Stock Incentive Plan	Incorporated by reference to Exhibit A to the Corporation's proxy statement dated March 18, 2008 for the annual meeting of stockholders held on April 15, 2008
10.28	Second Amendment to Citizens & Northern Corporation Stock Incentive Plan	Incorporated by reference to Exhibit 10.5 filed with the Corporation's Form 10-K on March 10, 2004
10.29	First Amendment to Citizens & Northern Corporation Stock Incentive Plan	Incorporated by reference to Exhibit 10.6 filed with the Corporation's Form 10-K on March 10, 2004
10.30	Citizens & Northern Corporation Stock Incentive Plan	Incorporated by reference to Exhibit 10.7 filed with the Corporation's Form 10-K on March 10, 2004
10.31	Second Amendment to Citizens & Northern Independent Directors Stock incentive Plan	Incorporated by reference to Exhibit 10.2 filed with Form 8-K on December 21, 2018
10.32	First Amendment to Citizens & Northern Corporation Independent Directors Stock Incentive Plan	Incorporated by reference to Exhibit B to the Corporation's proxy statement dated March 18, 2008 for the annual meeting of stockholders held on April 15, 2008
10.33	Citizens & Northern Corporation Independent Directors Stock Incentive Plan	Incorporated by reference to Exhibit A to the Corporation's proxy statement dated March 19, 2001 for the annual meeting of stockholders held on April 17, 2001.
10.34	Citizens & Northern Corporation Supplemental Executive Retirement Plan (as amended and restated)	Incorporated by reference to Exhibit 10.21 filed with the Corporation's Form 10-K on March 6, 2009
11.	Statement re: computation of per share earnings	Information concerning the computation of earnings per share is provided in Note 4 to the Consolidated Financial Statements, which is

		included in Part II, Item 8 of Form 10-K
12.	Statements re: computation of ratios	Not applicable
13.	Annual report to security holders, Form 10-Q or quarterly report to security holders	Not applicable
14.	Code of ethics	The Code of Ethics is available through the Corporation's website at www.cnbankpa.com. To access the Code of Ethics, click on "Investor Relations," followed by “Pages within Investor Relations,” “Corporate Governance Policies,” and “Code of Ethics.”

16.	Letter re: change in certifying accountant	Not applicable
18.	Letter re: change in accounting principles	Not applicable
21.	Subsidiaries of the registrant	Filed herewith
22.	Published report regarding matters submitted to vote of security holders	Not applicable
23.	Consent of Independent Registered Public Accounting Firm	Filed herewith
24.	Power of attorney	Not applicable
31.	Rule 13a-14(a)/15d-14(a) certifications:	
	31.1 Certification of Chief Executive Officer	Filed herewith
	31.2 Certification of Chief Financial Officer	Filed herewith
32.	Section 1350 certifications	Filed herewith
33.	Report on assessment of compliance with servicing criteria for asset-backed securities	Not applicable
34.	Attestation report on assessment of compliance with servicing criteria for asset-backed securities	Not applicable
35.	Service compliance statement	Not applicable
99.	Additional exhibits:	
	99.1 Additional information mailed or made available online to shareholders with proxy statement and Form 10-K on March 8, 2019	Filed herewith
100.	XBRL-related documents	Not applicable
101.	Interactive data file	Filed herewith

87

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated.

By: /s/ J. Bradley Scovill
President and Chief
Executive Officer

Date: February 21, 2019

By: /s/ Mark A. Hughes
Treasurer and Principal
Accounting Officer

Date: February 21, 2019

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

BOARD OF DIRECTORS

/s/ Dennis F. Beardslee	/s/ Frank G. Pellegrino
Dennis F. Beardslee	Frank G. Pellegrino
Date: February 21, 2019	Date: February 21, 2019
/s/ Jan E. Fisher	/s/ J. Bradley Scovill
Jan E. Fisher	J. Bradley Scovill
Date: February 21, 2019	Date: February 21, 2019
/s/ Susan E. Hartley	/s/ Leonard Simpson
Susan E. Hartley	Leonard Simpson
Date: February 21, 2019	Date: February 21, 2019
/s/ Bobbi J. Kilmer	/s/ Aaron K. Singer
Bobbi J. Kilmer	Aaron K. Singer

Date: February 21, 2019

/s/ Leo F. Lambert
Leo F. Lambert
Date: February 21, 2019

Date: February 21, 2019

/s/ James E. Towner
James E. Towner
Date: February 21, 2019

/s/ Terry L. Lehman
Terry L. Lehman
Date: February 21, 2019