

ZIOPHARM ONCOLOGY INC
Form DEF 14A
April 29, 2013
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

SCHEDULE 14A
(Rule 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION
Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to § 240.14a-12

ZIOPHARM Oncology, Inc.

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(Name of Registrant as Specified in Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

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 - (2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

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One First Avenue, Parris Building 34, Navy Yard Plaza

Boston, Massachusetts 02129

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS To be Held on June 19, 2013

To the stockholders of ZIOPHARM Oncology, Inc.:

Please take notice that the annual meeting of stockholders of ZIOPHARM Oncology, Inc. will be held, pursuant to due call by the board of directors, at our principal executive offices at One First Avenue, Parris Building 34, Navy Yard Plaza, First Floor, Boston, Massachusetts 02129, on Wednesday, June 19, 2013, at 11:00 a.m. Eastern time, or at any adjournment or adjournments thereof, for the purpose of considering and taking appropriate action with respect to the following:

1. To elect seven directors;
2. To ratify the appointment of McGladrey LLP as our independent registered public accounting firm for 2013;
3. To approve, on an advisory basis, the compensation of our named executive officers as identified in the proxy statement for the annual meeting; and
4. To transact any other business as may properly come before the meeting or any adjournments thereof.

Pursuant to action of the board of directors, stockholders of record on April 22, 2013 will be entitled to vote at the annual meeting or any adjournments thereof. Your attention is directed to the proxy statement available at <http://www.proxyvote.com> for a more complete statement of the matters to be considered at the meeting. A copy of the Annual Report for the year ended December 31, 2012 is also available at the same internet address.

Whether or not you expect to attend the annual meeting, please vote by proxy over the telephone or the internet as instructed in these materials, as promptly as possible in order to ensure your representation at the meeting. Even if you vote by proxy, you may still vote in person if you attend the meeting. If your shares are held of record by a broker, bank or other nominee and you wish to vote at the meeting, you must obtain a proxy issued in your name from the record holder.

By Order of the Board of Directors,

Caesar J. Belbel

Executive Vice President, Chief Legal Officer and Secretary

Boston, Massachusetts

April 29, 2013

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IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR OUR ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON JUNE 19, 2013 AT OUR PRINCIPAL EXECUTIVE OFFICES AT ONE FIRST AVENUE, PARRIS BUILDING 34, NAVY YARD PLAZA, FIRST FLOOR, BOSTON, MASSACHUSETTS 02129:

The proxy statement for the meeting and our 2012 Annual Report are available at

[http:// www.proxyvote.com](http://www.proxyvote.com)

This Notice is not a form for voting and presents only an overview of the proxy materials, which contain important information and are available on the internet or by mail. We encourage you to access and review the proxy materials before voting by accessing the internet website above, or by submitting a written request for a copy of the proxy statement and our 2012 Annual Report to ZIOPHARM Oncology, Inc., One First Avenue, Parris Building 34, Navy Yard Plaza, Boston, Massachusetts 02129, Attention: Secretary, or you may contact our Secretary at (617) 259-1970 prior to June 3, 2013.

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PROXY STATEMENT

FOR

2013 ANNUAL MEETING OF STOCKHOLDERS

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QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

Why did I receive a notice regarding the availability of proxy materials on the internet?

Pursuant to rules adopted by the Securities and Exchange Commission (the "SEC"), we have elected to provide access to our proxy materials over the internet. Accordingly, we have sent you a Notice of Internet Availability of Proxy Materials (the "Notice") because the Board of Directors of ZIOPHARM Oncology, Inc. (sometimes referred to as the "Company") is soliciting your proxy to vote at the 2013 Annual Meeting of Shareholders, including at any adjournments or postponements of the meeting. All shareholders will have the ability to access the proxy materials on the website referred to in the Notice or request to receive a printed set of the proxy materials. Instructions on how to access the proxy materials over the internet or to request a printed copy may be found in the Notice.

We intend to mail the Notice on or about May 1, 2013 to all shareholders of record entitled to vote at the annual meeting.

How do I attend the annual meeting?

The meeting will be held on Wednesday, June 19, 2013, at 11:00 a.m. Eastern time, at our principal executive offices at One First Avenue, Parris Building 34, Navy Yard Plaza, First Floor, Boston, Massachusetts 02129. Directions to our principal executive offices are available at our website at <http://www.ziopharm.com>. Our website and the information contained therein are not incorporated into this proxy statement. Information on how to vote in person at the annual meeting is discussed below.

Who can vote at the annual meeting?

Only stockholders of record at the close of business on April 22, 2013, which we refer to as the Record Date, will be entitled to vote at the annual meeting. On the Record Date, there were 83,603,895 shares of common stock outstanding and entitled to vote.

Stockholder of Record - Shares Registered in Your Name: If on April 22, 2013 your shares were registered directly in your name with our transfer agent, American Stock Transfer & Trust Company, LLC, then you are a stockholder of record. As a stockholder of record, you may vote in person at the meeting or vote by proxy. Whether or not you plan to attend the meeting, we urge you to vote by proxy over the telephone or on the internet as instructed below, to ensure your vote is counted.

Beneficial Owner - Shares Registered in the Name of a Broker or Bank: If on April 22, 2013 your shares were not registered in your name, but instead are held in an account at a brokerage firm, bank, dealer or similar organization, then you are the beneficial owner of shares held in "street name" and the Notice is being forwarded to you by that organization. The organization holding your account is considered to be the stockholder of record for purposes of voting at the annual meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the annual meeting. Since you are not the stockholder of record, however, you may not vote your shares in person at the meeting unless you request and obtain a valid proxy from your broker or other agent.

What am I voting on?

There are three matters scheduled for a vote:

1. Election of seven directors;
2. Ratification of the appointment of McGladrey LLP as our independent registered public accounting firm for 2013; and
3. Approval, on an advisory basis, of the compensation of our named executive officers as identified in this proxy statement.

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What if another matter is properly brought before the meeting?

The board of directors knows of no other matters that will be presented for consideration at the annual meeting. If any other matters are properly brought before the meeting, it is the intention of the persons named in the accompanying proxy to vote on those matters in accordance with their best judgment.

How do I vote?

With respect to Proposal No. 1, you may vote For all the nominees to the board of directors or you may Withhold your vote for any of the nominees you specify. With respect to Proposal No. 2 and Proposal No. 3, you may vote For or Against, or you may abstain from voting.

We provide internet proxy voting to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. Please be aware, however, that you must bear any costs associated with your internet access, such as usage charges from internet access providers and telephone companies.

Stockholder of Record Shares Registered in Your Name: If you are a stockholder of record, you may vote in person at the annual meeting, vote by proxy over the telephone, vote by proxy through the internet, or vote by proxy using a proxy card that you may request. Whether or not you plan to attend the meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the meeting and vote in person even if you have already voted by proxy.

To vote in person, come to the annual meeting and we will give you a ballot when you arrive.

To vote using a proxy card, you may request a proxy card by following the instructions in the Notice. Once you receive the proxy card, simply complete, sign and date the proxy card and return it promptly in the envelope provided. If you return your signed proxy card to us before the annual meeting, we will vote your shares as you direct.

To vote over the telephone from a location in the United States, dial toll-free 1-800-690-6903, using a touch-tone phone and follow the recorded instructions. You will be asked to provide the company number and control number from the Notice. Your vote must be received by 11:59 p.m. Eastern time, on June 18, 2013 to be counted.

To vote through the internet, go to www.voteproxy.com to complete an electronic proxy card. You will be asked to provide the company number and account number from the Notice. Your vote must be received by 11:59 p.m. Eastern time, on June 18, 2013 to be counted.

Beneficial Owner Shares Registered in the Name of a Broker or Bank: If you are a beneficial owner of shares registered in the name of your broker, bank, or other agent, you should have received a Notice containing voting instructions from that organization rather than from us. Simply follow the voting instructions in the Notice to ensure that your vote is counted. To vote in person at the annual meeting, you must obtain a valid proxy from your broker, bank, or other agent. Follow the instructions from your broker or bank included with these proxy materials, or contact your broker or bank to request a proxy form.

How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you own as of April 22, 2013.

What if I return a proxy card or otherwise vote but do not make specific choices?

If you return a signed and dated proxy card or otherwise vote without marking voting selections, your shares will be voted, as applicable, For the election of all nominees for director, For ratification of McGladrey LLP as our independent registered public accounting firm for 2013 and For the approval, on an advisory basis, of

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the compensation of our named executive officers as identified in this proxy statement. If any other matter is properly presented at the meeting, your proxyholder (one of the individuals named on your proxy card) will vote your shares using his best judgment.

Who is paying for this proxy solicitation?

We will pay for the entire cost of soliciting proxies. In addition to these proxy materials, our directors and employees may also solicit proxies in person, by telephone, or by other means of communication. Directors and employees will not be paid any additional compensation for soliciting proxies. We may also reimburse brokerage firms, banks and other agents for the cost of forwarding proxy materials to beneficial owners.

What does it mean if I receive more than one Notice?

If you receive more than one Notice, your shares may be registered in more than one name or in different accounts. Please follow the voting instructions on the Notices to ensure that all of your shares are voted.

Can I change my vote after submitting my proxy?

Yes. You can revoke your proxy at any time before the final vote at the meeting. If you are the record holder of your shares, you may revoke your proxy in any one of the following ways:

You may submit another properly completed proxy card with a later date.

You may grant a subsequent proxy by telephone or through the internet.

You may send a timely written notice that you are revoking your proxy to our Secretary at our principal executive offices at One First Avenue, Parris Building 34, Navy Yard Plaza, Boston, Massachusetts 02129.

You may attend the annual meeting and vote in person. Simply attending the meeting will not, by itself, revoke your proxy. Your most current proxy card or telephone or internet proxy is the one that is counted.

If your shares are held by your broker or bank as a nominee or agent, you should follow the instructions provided by your broker or bank.

How are votes counted?

Votes will be counted by the inspector of election appointed for the meeting, who will separately count, for the proposal to elect directors, votes For, Withhold and broker non-votes; and, with respect to other proposals, votes For and Against, abstentions and, if applicable, broker non-votes. Abstentions will be counted towards the vote total for Proposal Three and will have the same effect as Against votes. Broker non-votes have no effect and will not be counted towards the vote total for any proposal.

What are broker non-votes ?

Broker non-votes occur when a beneficial owner of shares held in street name does not give instructions to the broker or nominee holding the shares as to how to vote on matters deemed non-routine. Generally, if shares are held in street name, the beneficial owner of the shares is entitled to give voting instructions to the broker or nominee holding the shares. If the beneficial owner does not provide voting instructions, the broker or nominee can still vote the shares with respect to matters that are considered to be routine, but not with respect to non-routine matters.

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Which ballot measures are considered routine or non-routine ?

The ratification of the appointment of McGladrey LLP as our independent registered public accounting firm for 2013 (Proposal Two) is a matter considered routine under applicable rules. A broker or other nominee may generally vote on routine matters, and therefore no broker non-votes are expected to exist in connection with Proposal Two.

The election of directors (Proposal One), and the approval, on an advisory basis, of the compensation of our named executive officers (Proposal Three) are matters considered non-routine under applicable rules. A broker or other nominee cannot vote without instructions on non-routine matters, and therefore there may be broker non-votes on Proposals One and Three.

How many votes are needed to approve each proposal?

For Proposal No. 1, which relates to the election of directors, the seven nominees receiving the most For votes (from the holders of votes of shares present in person or represented by proxy and entitled to vote on the election of directors) will be elected. Only votes For or Withheld will affect the outcome.

To be approved, Proposal No. 2, which relates to the ratification of McGladrey LLP as our independent registered public accounting firm for 2013, must receive For votes from the holders of a majority of shares present in person or represented by proxy and entitled to vote at the meeting. If you Abstain from voting, it will have the same effect as an Against vote. Broker non-votes will have no effect.

To be approved, Proposal No. 3, which relates to the approval, on an advisory basis, of the compensation of our named executive officers, must receive For votes from the holders of a majority of shares present in person or represented by proxy and entitled to vote at the meeting. If you Abstain from voting, it will have the same effect as an Against vote. Broker non-votes will have no effect.

What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if stockholders holding at least a majority of the outstanding shares entitled to vote are present at the meeting in person or represented by proxy.

Your shares will be counted towards the quorum only if you submit a valid proxy (or one is submitted on your behalf by your broker, bank or other nominee) or if you vote in person at the meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, the holders of a majority of shares present at the meeting in person or represented by proxy may adjourn the meeting to another date.

How can I find out the results of the voting at the annual meeting?

Preliminary voting results will be announced at the annual meeting. Final voting results will be filed on a current report on Form 8-K on or before June 25, 2013.

A COPY OF OUR 2012 ANNUAL REPORT (INCLUDING A COPY OF OUR ANNUAL REPORT ON FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2012, AS FILED WITH THE SEC) IS BEING FURNISHED CONCURRENTLY HEREWITH. A STOCKHOLDER MAY SUBMIT A WRITTEN REQUEST FOR A COPY OF THE 2012 ANNUAL REPORT TO ZIOPHARM ONCOLOGY, INC., ONE FIRST AVENUE, BUILDING 34, NAVY YARD PLAZA, BOSTON, MASSACHUSETTS 02129, ATTENTION: SECRETARY OR MAY CONTACT OUR SECRETARY AT (617) 259-1970.

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PROPOSALS

Proposal No. 1. Election of Directors

Our board of directors currently consists of the seven directors identified below, each of whom was previously elected by the stockholders, plus one vacancy. If re-elected, each nominee has consented to serve as one of our directors, to hold office until the next annual meeting of stockholders, until his or her successor is elected and shall have qualified, or until his or her earlier death, resignation or removal. Proxies cannot be voted for a greater number of persons than the number of nominees named in the proxy statement. If any director nominee should withdraw or otherwise become unavailable to serve, the proxies which would have otherwise been voted for that director nominee may be voted for a substitute director nominee selected by our board. We are not aware of any reason that a nominee will be unable or unwilling to serve as a director.

On July 16, 2012, Richard E. Bagley was terminated as President and Chief Operating Officer and from our board of directors, leaving one vacant position on our board. Vacancies on the board may be filled only by persons elected by a majority of the remaining directors or may be elected by a plurality of the stockholder votes cast. A director elected by the board to fill a vacancy, including vacancies created by an increase in the number of directors, shall serve for the remainder of the full term or until the director's successor is duly elected and qualified. Our board of directors intends to appoint a director to fill the vacancy left by Mr. Bagley's termination.

Our nominating and corporate governance committee seeks to assemble a board that, as a whole, possesses the appropriate balance of professional and industry knowledge, financial expertise and management experience necessary to oversee and direct our business. To that end, the nominating and corporate governance committee has evaluated the board's current members in the broader context of the board's overall composition. The nominating and corporate governance committee maintains a goal of recruiting members who complement and strengthen the skills of other members and who also exhibit integrity, collegiality, sound business judgment and other qualities that the nominating and corporate governance committee views as critical to effective functioning of the board.

The following table contains biographical information, as of the date of this proxy statement, together with information about the specific and particular experience, qualifications, attributes or skills of each nominee for director that led the nominating and corporate governance committee to believe that the nominee should continue to serve on the board.

Jonathan Lewis, M.D., Ph.D.

Dr. Lewis is our Chief Executive Officer and one of our directors, serving in these capacities since our September 2005 acquisition of ZIOPHARM, Inc. Dr. Lewis previously served as Chief Executive Officer and a director of ZIOPHARM, Inc. since January 2004. He served as Chief Medical Officer and Chairman of the Medical Board at Antigenics, Inc. from June 2000 until November 2003. From July 1994 until June 2001, Dr. Lewis served as Professor of Surgery and Medicine at Memorial Sloan-Kettering Cancer Center. He has been actively involved in leading translational and clinical research in cancer, and is widely recognized by patient advocacy groups. He has received numerous honors and awards in medicine and science, including the American Society of Clinical Oncology Young Investigator Award, the Yale University Ohse Research Award, and the Royal College of Surgeons Trubshaw Medal. He serves as a director on the board of directors of the Police Organization Providing Peer Assistance of the New York City Police Department, a member of the Medical Advisory Board of the Sarcoma Foundation of America, a member of the Scientific Advisory Board of the Combat Wound Initiative Program of the Henry M. Jackson Foundation for the Advancement of Military Medicine, and as Chairman of the board of directors of the Hope Funds for Cancer Research. Dr. Lewis previously served as a director of Delcath Systems, Inc., a

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development stage, specialty pharmaceutical and medical device company focused on oncology, from June 2007 to December 2008. Dr. Lewis holds a MB.B.Ch. from Witwatersrand University School of Medicine (Johannesburg, South Africa) and a Ph.D. in molecular biology from Witwatersrand and Yale University School of Medicine. Dr. Lewis is 54 years old.

The board believes that Dr. Lewis is an appropriate person to represent management on the board given his position as our principal executive officer, his tenure with us, which dates back to our inception, his professional credentials, his standing in the medical community and his clinical research experience.

Murray Brennan, M.D.

Dr. Brennan, who currently serves as the board's non-executive Lead Director, has been one of our directors since our September 2005 acquisition of ZIOPHARM, Inc. and previously served as a director of ZIOPHARM, Inc. since December 2004. Dr. Brennan is Emeritus Chairman of Memorial Sloan-Kettering's Department of Surgery and previously served as its Chairman from 1985 to 2007. Dr. Brennan is the Benno C. Schmidt Chair in Clinical Oncology at the Memorial Sloan Kettering Cancer Center, continues to operate at this institution and currently serves as its Vice President for International Programs. Dr. Brennan also is a member of the Institute of Medicine of The National Academy of Sciences. He actively lectures at major institutions throughout the world and has authored or co-authored more than 1000 scientific papers. He previously served as a director of the American Board of Surgery, Chairman of the American College of Surgeons Commission on Cancer, President of the Society of Surgical Oncology, President of the American Surgical Association, President of the Society of Clinical Surgery and Vice President of the American College of Surgeons. He is the recipient of numerous honors, honorary degrees and fellowships for his leadership role in surgery and oncology worldwide. He serves on the board of directors of the de Beaumont Foundation, a charitable foundation designed to support public health in the United States and elsewhere. Dr. Brennan is 73 years old.

Dr. Brennan's credentials and standing in the medical community worldwide, and the oncology community specifically, along with the leadership roles in which he has served at various esteemed organizations, provide experience and credibility that the board believes make him well suited to serve on the board and as its non-executive Lead Director.

James A. Cannon

James (Jim) Cannon has been one of our directors since our September 2005 acquisition of ZIOPHARM, Inc. and previously served as a director of ZIOPHARM, Inc. since December 2004. Mr. Cannon is currently Vice Chairman, Chief Financial Officer and a member of the board of directors of BBDO Worldwide, an advertising agency. In these capacities, he oversees the financial management of BBDO operations in 77 countries. Jim joined BBDO in 1967, was promoted to Chief Financial Officer of the agency in 1984, and was elected to its board of directors one year later. An integral member of the team that formed Omnicom via a unique three-agency merger of BBDO, DDB and Needham Harper & Steers, Jim became Comptroller of the new group (NYSE: OMC) and a member of its board of directors in 1986, a position he held through 2002. In 1987, he was appointed Director of Financial Operations of the Omnicom Group, serving in this capacity until early 1989 when he rejoined BBDO Worldwide as Executive Vice President and Chief Financial Officer. His return was concurrent with that of Allen Rosenshine who became Chairman and Chief Executive officer of BBDO after heading Omnicom. Jim was promoted to

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Vice Chairman of the agency in 1990. Mr. Cannon is a graduate of Pace University and served in the U.S. Marine Corps. Mr. Cannon is 74 years old.

The board believes that Mr. Cannon is qualified to serve as one of our directors based on his financial skills and overall business judgment. In addition, the role played by Mr. Cannon at BBDO, where he oversees the financial management of that company's international operations, uniquely qualifies him to serve as Chair of the audit committee.

Senator Wyche Fowler, Jr.

Senator Wyche Fowler, Jr. has been one of our directors since our September 2005 acquisition of ZIOPHARM, Inc. and previously served as a director of ZIOPHARM, Inc. since December 2004. Senator Fowler served for 16 years in the United States Congress representing the state of Georgia, from April 1977 to January 1993. In the U.S. Senate he served as assistant floor leader, helping mold a bipartisan consensus for major public policy issues. Senator Fowler was a member of the U.S. Senate Appropriations, Budget, Energy and Agriculture Committees. First elected to the U.S. House of Representatives, he was a member of the Ways and Means and Foreign Affairs Committees, as well as the Select Committee on Intelligence. Following his service in the United States Congress, Senator Fowler served as U.S. Ambassador to the Kingdom of Saudi Arabia from 1996 through 2001. On his return, the FBI awarded him its highest civilian honor, The Jefferson Cup, for his assistance in combating terrorism and for helping solve terrorism crimes against the U.S. military in Saudi Arabia. He was named Lion of Judah by the State of Israel for successfully freeing Soviet Jew Yakov Gluzman. Senator Fowler is currently engaged in an international business and law practice, and serves as Chairman Emeritus of the Board of the Middle East Institute, a non-profit foundation in Washington, D.C. Senator Fowler also serves on the board of directors of Shubert Theaters, the Shubert Foundation, Brandywine Realty Trust and Keryx Biopharmaceuticals, Inc., a biopharmaceutical company. Senator Fowler holds an A.B. in English from Davidson College and a J.D. from Emory University School of Law. Senator Fowler is 72 years old.

Senator Fowler's background and experience in the United States Congress, and the leadership qualities exemplified during and since his tenure in Congress, are attributes that the board believes benefit our overall board operations. In addition, his international business and law experience qualify him to serve on the board.

Randal J. Kirk

Randal J. Kirk has been one of our directors since January 2011. Mr. Kirk is the Senior Managing Director and Chief Executive Officer of Third Security, LLC, an investment management firm founded by Mr. Kirk. Additionally, Mr. Kirk founded and became Chairman of the board of directors of New River Pharmaceuticals Inc. (previously traded on NASDAQ prior to its acquisition by Shire plc in 2007) in 1996, and was President and Chief Executive Officer between October 2001 and April 2007. Mr. Kirk began his professional career in the private practice of law. Previously, Mr. Kirk served as a member of the board of directors of Scios, Inc. (previously traded on NASDAQ prior to its acquisition by Johnson & Johnson) between February 2000 and May 2002, and as a member of the board of directors of Clinical Data, Inc. (previously traded on NASDAQ prior to its acquisition by Forest Laboratories, Inc. in April 2011) from September 2002 to April 2011, and was Chairman of the board from December 2004 to April 2011. Mr. Kirk currently serves in a number of additional capacities, including as a member of the board of directors of Halozyme Therapeutics, Inc. (NASDAQ: HALO), since May 2007 and as Chairman of the

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board of directors of Intrexon Corporation since February 2008 and Chief Executive Officer since April 2009. Mr. Kirk served on the Board of Visitors of Radford University from July 2003 to June 2009, was Rector of the board from September 2006 to September 2008, and has served on the board of directors of the Radford University Foundation, Inc. from September 1998 to May 2011. He served on the Board of Visitors of the University of Virginia and Affiliated Schools from July 2009 to October 2012, on the Virginia Advisory Council on Revenue Estimates from July 2006 to October 2012, and on the Governor's Economic Development and Jobs Creation Commission from April 2010 to October 2012. Mr. Kirk received a B.A. in business from Radford University and a J.D. from the University of Virginia. Mr. Kirk is 59 years old.

Mr. Kirk's extensive experience and record of achievement as an entrepreneur, investor, top executive and board member of numerous leading pharmaceutical and other health care companies qualifies him to serve on the board. Although we do not believe that share ownership qualifies any person to serve as one of our directors, we also believe that Mr. Kirk's direct and indirect ownership of our common stock (approximately 17.9% beneficial ownership as of the Record Date) aligns his interests with those of our stockholders and drives the board's focus on maximizing stockholder value.

Timothy McNerney

Timothy McNerney has been one of our directors since our September 2005 acquisition of ZIOPHARM, Inc. and previously served as a director of ZIOPHARM, Inc. since July 2005. In June of 2007, Mr. McNerney joined Riverbank Capital, which specializes in financing for the biotech and specialty pharmaceutical industry, as a Partner. From 1992 to March 2007, Mr. McNerney was a Managing Director of Paramount BioCapital, Inc. where he oversaw the overall distribution of Paramount's private equity product. Prior to 1992, Mr. McNerney was a research analyst focusing on the biotechnology industry at Ladenburg, Thalman & Co. Prior to that, Mr. McNerney held equity sales positions at Bear Sterns & Co. and Shearson Lehman Brothers, Inc. Mr. McNerney also worked in sales and marketing for Bristol-Myers Squibb. He received his B.S. in pharmacy from St. John's University at New York. He also completed a post-graduate residency at the New York University Medical Center in drug information systems. Mr. McNerney currently serves as Chairman of the board of directors of Insite Vision Inc., an ophthalmologic product development company, Emisphere Technologies, Inc., a biopharmaceutical company, and Edgemont Pharmaceuticals, LLC, a pharmaceutical company, and previously served on the board of directors of Manhattan Pharmaceuticals, Inc. a biopharmaceutical company. Mr. McNerney is 52 years old.

Mr. McNerney's experiences with investment banking firms that have specialized in forming and raising capital for pharmaceutical development companies makes him uniquely qualified to serve on the board. We have benefitted and continue to benefit from the various contacts that Mr. McNerney has in the investment community and his involvement with other biotechnology companies provides valuable context to board discussions.

Michael Weiser, M.D., Ph.D.

Dr. Weiser has been one of our directors since our September 2005 acquisition of ZIOPHARM, Inc. and previously served as a director of ZIOPHARM, Inc. since its inception in September 2003. Dr. Weiser is currently founder and co-chairman of Actin Biomed, a New York-based healthcare investment firm advancing the discovery and development of novel treatments for unmet medical needs. Prior to joining Actin Biomed in December 2006, Dr. Weiser was the Director of

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Research at Paramount BioCapital where he was responsible for the scientific, medical and financial evaluation of biomedical technologies and pharmaceutical products under consideration for development. In addition, Dr. Weiser has received awards for both academic and professional excellence and is published extensively in both medical and scientific journals. Dr. Weiser is a member of The National Medical Honor Society, Alpha Omega Alpha, American Society of Clinical Oncology, American Society of Hematology and Association for Research in Vision and Ophthalmology. Dr. Weiser currently serves on the board of directors of Chelsea Therapeutics International and Emisphere Technologies, Inc., both biopharmaceutical companies, as well as on the board of directors of several privately held companies. Dr. Weiser previously served as a director of Hana Biosciences, Inc., Manhattan Pharmaceuticals, Inc. and Vioquest Pharmaceuticals, Inc. Dr. Weiser completed his Ph.D. in Molecular Neurobiology at Cornell University Medical College and received his M.D. from New York University School of Medicine. He performed his post-graduate medical training in the Department of Obstetrics and Gynecology at New York University Medical Center. Dr. Weiser also completed a Postdoctoral Fellowship in the Department of Physiology and Neuroscience at New York University School of Medicine and received his B.A. in psychology from University of Vermont. Dr. Weiser is 50 years old.

Dr. Weiser's medical education and background coupled with his experiences as co-chairman of a healthcare investment firm and former Director of Research for a biotechnology investment banking firm, provide him with a unique background and skill set that have added and continue to add value to the board. In addition, Dr. Weiser's service on the boards of directors of various public biotechnology companies and his knowledge of compensation trends also makes him well suited to serve as a member of the compensation committee.

None of the director nominees is related by blood, marriage or adoption to any of our other director nominees or executive officers.

Mr. Randal J. Kirk, as a designee of Intrexon Corporation, or Intrexon, has been nominated and recommended for re-election at the annual meeting in accordance with a Stock Purchase Agreement dated January 6, 2011 between us and Intrexon. Pursuant to that agreement, we agreed that at each stockholders' meeting at which directors are to be elected, we will nominate and recommend for election to the board an individual designated by Intrexon, provided that the board determines that he or she is a suitable candidate. We further agreed that if Intrexon's designee is not elected to the board by our stockholders, then, at Intrexon's election, such designee will be entitled to attend all board and committee meetings as an observer subject to certain conditions and limitations. Other than Mr. Kirk, no other the director nominee is party to an arrangement or understanding with any person pursuant to which the nominee is to be selected or nominated for election as a director.

Vote Required

Directors are elected by a plurality of the votes of the holders of shares present in person or represented by proxy and entitled to vote on the election of directors. The seven nominees receiving the highest number of affirmative votes will be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the seven nominees named above. If you do not vote for a particular nominee, or you withhold authority for one or all nominees, your vote will not count either for or against the nominee, although it will be counted for purposes of determining whether there is a quorum.

The board recommends that you vote FOR the election of each named nominee.

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Proposal No. 2. Ratification of Appointment of Independent Registered Public Accounting Firm

The board of directors and management are committed to the quality, integrity and transparency of the financial reports. Independent auditors play an important part in our system of financial control. In accordance with the duties set forth in its written charter, the audit committee of the board has appointed McGladrey LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2013. A representative of McGladrey LLP is expected to attend the annual meeting. He or she will have an opportunity to make a statement if he or she so desires and will be available to respond to appropriate questions from stockholders.

We are not required by statute or our by-laws or other governing documents to obtain stockholder ratification of the appointment of McGladrey LLP as our independent registered public accounting firm. The audit committee has submitted the appointment of McGladrey LLP to the stockholders for ratification as a matter of good corporate practice. If the stockholders do not ratify the appointment, the audit committee may reconsider its selection. Notwithstanding the proposed ratification of the appointment of McGladrey LLP by the stockholders, the audit committee, in its discretion, may direct the appointment of a new independent registered public accounting firm at any time during the year without notice to, or the consent of, the stockholders, if the audit committee determines that such a change would be in our best interests and the best interests of our stockholders.

Vote Required

The affirmative vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote at the annual meeting will be required to ratify the appointment of McGladrey LLP. Abstentions will be counted toward the tabulation of votes cast on proposals presented to the stockholders and will have the same effect as negative votes. Broker non-votes are counted towards a quorum, but are not counted for any purpose in determining whether this matter has been approved.

*The board recommends that you vote **FOR** the ratification of the appointment of McGladrey*

LLP as our independent registered public accounting firm for 2013.

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Proposal No. 3. Advisory Vote on Executive Compensation

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, our stockholders are entitled to vote to approve, on an advisory basis, the compensation of our named executive officers as disclosed in this proxy statement in accordance with the rules of the Securities and Exchange Commission, or SEC. This vote is not intended to address any specific item of compensation, but rather the overall compensation of our named executive officers and the philosophy, policies and practices described in this proxy statement. We currently intend to conduct this advisory vote annually, with the next such vote to occur at next year's Annual Meeting.

The compensation of our named executive officers is disclosed in the section entitled "Executive Compensation" below, including the tabular and narrative disclosures set forth in such section under the headings "Executive Compensation Tables" and "Compensation Discussion and Analysis." As discussed in those disclosures, we believe that our compensation policies and decisions are focused on pay-for-performance principles and strongly aligned with our stockholders' interests. Compensation of our named executive officers is designed to enable us to attract, motivate and retain talented and experienced executives to lead our company successfully in a competitive environment.

We are asking our stockholders to indicate their support for the compensation of our named executive officers as described in this proxy statement by casting a non-binding advisory vote "FOR" the following resolution:

RESOLVED, that the stockholders approve the compensation of the named executive officers of ZIOPHARM Oncology, Inc., as disclosed in the section entitled "Executive Compensation" in the Proxy Statement for the ZIOPHARM Oncology, Inc. 2013 Annual Meeting of Stockholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission.

Vote Required

The affirmative vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote at the annual meeting will be required to approve, on an advisory basis, the compensation of our named executive officers as described herein. Because the vote is advisory, it will not be binding on us, the board or its compensation committee. Nevertheless, the views expressed by our stockholders, whether through this vote or otherwise, are important to us and, accordingly, the board and its compensation committee intend to consider the results of this vote in making determinations in the future regarding executive compensation arrangements.

*The board recommends that you vote FOR the proposal to approve the compensation of our
named executive officers, as described in this proxy statement.*

Other Matters

The board of directors is not aware of any matter to be presented for action at the annual meeting other than the three proposals described above. The board does not intend to bring any other matters before the annual meeting.

Stockholder Proposals for 2014 Annual Meeting

Stockholders who intend to have a proposal considered for inclusion in our proxy materials for presentation at the 2014 Annual Meeting of Stockholders pursuant to Rule 14a-8 under the Securities Exchange Act must be received by our Secretary at our principal executive offices at One First Avenue, Parris Building 34, Navy Yard Plaza, Boston, Massachusetts 02129, by no later than January 1, 2014. Due to the complexity of the respective rights of the stockholders and us in this area, any stockholder desiring to propose such an action is advised to consult with his or her legal counsel with respect to such rights. We suggest that any such proposal be submitted to us by certified mail, return receipt requested.

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Rule 14a-4 under the Securities Exchange Act governs our use of our discretionary proxy voting authority with respect to a stockholder proposal that the stockholder has not sought to include in our proxy statement. Rule 14a-4 provides that if a proponent of a proposal fails to notify us at least 45 days prior to the month and day of mailing of the prior year's proxy statement, management proxyholders will be allowed to use their discretionary voting authority when the proposal is raised at the meeting, without any discussion of the matter. If a stockholder wishes to bring a matter before the stockholders at the 2014 Annual Meeting but does not notify us before March 17, 2014, for all proxies we receive, the management proxyholders will have discretionary authority to vote on the matter, including discretionary authority to vote in opposition to the stockholder's proposal.

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EXECUTIVE OFFICERS

You should refer to *Proposal No. 1. Election of Directors* above in this proxy statement for information about our Chief Executive Officer, Jonathan Lewis, M.D., Ph.D. Biographical information for our other executive officers, as of the date of this proxy statement, follows.

Jason A. Amello <i>Executive Vice President, Chief Financial Officer and Treasurer</i>	Mr. Amello has served as our Executive Vice President, Chief Financial Officer and Treasurer since May 2012. Previously, from December 2008 until June 2011, Mr. Amello was Senior Vice President, Corporate Controller and Chief Accounting Officer of Genzyme Corporation, which was acquired by Sanofi-Aventis in April 2011. He was Vice President, Strategic Financial Services of Genzyme Corporation from June 2004 to November 2008. Mr. Amello holds a bachelor's degree from Boston College and is a certified public accountant in the Commonwealth of Massachusetts. He is 44 years old.
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Caesar J. Belbel <i>Executive Vice President, Chief Legal Officer and Secretary</i>	Mr. Belbel has served as our Executive Vice President, Chief Legal Officer and Secretary since September 2011. From May 2003 to May 2011, he was Executive Vice President, Chief Legal Officer and Secretary of Clinical Data, Inc., a biopharmaceutical company that was acquired in April 2011 by Forest Laboratories, Inc. Mr. Belbel holds a bachelor's degree from Columbia University and a juris doctor degree from Boston College Law School. He is 53 years old.
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There are no family relationships among any of the directors or executive officers. None of the executive officers is related by blood, marriage or adoption to any of our other directors, director nominees or executive officers.

Table of Contents**EXECUTIVE COMPENSATION****Executive Compensation Tables***Summary Compensation Table for Fiscal 2012*

Richard E. Bagley was terminated as our President and Chief Operating Officer on July 16, 2012, and was our principal financial officer until May 7, 2012, following which on May 8, 2012 Jason A. Amello became our principal financial officer when he joined the Company as our Executive Vice President, Chief Financial Officer and Treasurer. Hagop Youssoufian, M.Sc., M.D. was terminated as our President of Research and Development and Chief Medical Officer on April 2, 2013. The following table sets forth information regarding compensation earned by our named executive officers, who consist of our principal executive officer, our principal financial officer and our two other executive officers in 2012:

Bonus (\$)	Stock Awards (\$)⁽¹⁾	Option Awards (\$)⁽¹⁾	All Other Compensation (\$)	Total (\$)
97,020		\$ 875,940	\$ 122,789 ⁽²⁾	\$
58,212	\$ 453,264		\$ 69,756 ⁽³⁾	

The Sarbanes-Oxley Act

In 2002, the Sarbanes-Oxley Act became law. The Act was in response to public concerns regarding accountability in connection with recent high visibility accounting scandals. The stated goals of the Sarbanes-Oxley Act are:

- To increase corporate responsibility;
- To provide for enhanced penalties for accounting and auditing improprieties at publicly traded companies;
- To protect investors by improving the accuracy and reliability of corporate disclosures pursuant to securities laws.

The Sarbanes-Oxley Act generally applies to all companies, both U.S. and non-U.S., that file periodic reports with the SEC under the Exchange Act. The legislation includes provisions, among other things:

- Governing the services that can be provided by a public company's independent auditors and the process of approving such services;
- Requiring the chief executive officer and chief financial officer to certify certain matters relating to the company's periodic filings under the Exchange Act;

- Requiring expedited filings of reports by insiders of their securities transactions and other provisions relating to insider conflicts of interest;
- Increasing disclosure requirements relating to critical financial accounting policies and their application;
- Increasing penalties for securities law violations; and
- Creating a public accounting oversight board, a regulatory body subject to SEC jurisdiction with authority to set auditing, quality control and ethics standards for accounting firms.

Dodd-Frank Wall Street Reform and Consumer Protection Act

The Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank”) became law on July 21, 2010. Dodd-Frank is intended to affect a fundamental restructuring of federal banking regulation. Among other things, Dodd-Frank created a new Financial Stability Oversight Council to identify systemic risks in the financial system and gave federal regulators new authority to take control of and liquidate financial firms. Dodd-Frank additionally created a new independent federal regulator to administer federal consumer protection laws. Dodd-Frank continues to have a significant impact on our business operations as its provisions are implemented and requirements are clarified. Community banks have seen an increase in operating and compliance costs and interest expense. Among the provisions that have affected us are the following:

Holding Company Capital Requirements. Dodd-Frank requires the Federal Reserve to apply capital requirements to bank holding companies that are no less stringent than those currently applied to depository institutions. Under these standards, trust preferred securities will be excluded from Tier 1 capital unless such securities were issued prior to May 19, 2010 by a bank holding company with less than 10% of assets. Dodd-Frank additionally requires that bank regulators issue countercyclical capital requirements that the required amount of capital increases in times of economic expansion and decreases in times of economic contraction, consistent with safety and soundness.

Deposit Insurance. Dodd-Frank permanently increases the maximum deposit insurance amount for savings institutions and credit unions to \$250,000 per depositor, and extended unlimited deposit insurance for non-interest bearing transaction accounts through December 31, 2012. Dodd-Frank also broadened the scope of FDIC insurance assessments. Assessments will now be based on the average consolidated total tangible equity capital of a financial institution. Dodd-Frank requires the FDIC to increase the contribution to the Deposit Insurance Fund from 1.15% to 1.35% of insured deposits by 2020 and eliminates the requirement that the FDIC pay dividends to insured depository institutions when the reserve ratio exceeds certain levels. Effective one year from the date of enactment, Dodd-Frank eliminated the federal statutory prohibition on the payment of interest on business checking accounts.

Corporate Governance. Dodd-Frank requires publicly traded companies to give stockholders a vote on executive compensation at least every three years, a non-binding vote regarding the frequency of executive compensation at least every six years, and a non-binding vote on “golden parachute” payments in connection with approvals of mergers and acquisitions unless previously voted on by shareholders. The SEC finalized the rules implementing these requirements which took effect on January 21, 2011. Additionally, Dodd-Frank directs the federal banking regulators to promulgate rules prohibiting excessive compensation to executives of depository institutions and their holding companies with assets in excess of \$1 billion, regardless of whether the company is publicly traded. Dodd-Frank also gives the SEC authority to prohibit broker discretionary voting on elections of directors and executive compensation matters.

Prohibition Against Charter Conversions of Troubled Institutions. Effective one year after enactment, Dodd-Frank prohibits a depository institution from converting from a state to federal charter or from a federal to state charter if it is the subject of a cease and desist order or other formal enforcement action or a memorandum of understanding with respect to a significant supervisory matter unless the appropriate federal banking regulator gives notice of the conversion to the federal or state authority that issued the enforcement action and that authority does not object within 30 days. The notice must include a plan to address the significant supervisory matter. The converting institution must also file a copy of the conversion application with its current federal regulator. The federal regulator must notify the resulting federal regulator of any ongoing supervisory or investigative proceeding and must cooperate to result in an enforcement action and provide access to all supervisory and investigative information related thereto.

Interstate Branching. Dodd-Frank authorizes national and state banks to establish branches in other states to the same extent as a bank chartered by that state would be permitted. Previously, banks could only establish branches in other states if the host state expressly permitted out-of-state banks to establish branches there. Accordingly, banks will be able to enter new markets more freely.

Limits on Interstate Acquisitions and Mergers. Dodd-Frank precludes a bank holding company from acquiring a bank in an interstate acquisition — the acquisition of a bank outside its home state — unless the bank being acquired is both well capitalized and well managed. Furthermore, a bank may not engage in an interstate merger with another bank headquartered in another state unless the surviving institution will be well capitalized and well managed. The previous standard in both cases was adequately capitalized and adequately managed.

Limits on Interchange Fees. Dodd-Frank amends the Electronic Fund Transfer Act to, among other things, give the Federal Reserve the authority to establish rules regarding interchange fees charged for electronic transactions by payment card issuers having assets over \$10 billion and to enforce a new statute that requires that such fees be reasonable and proportional to the actual cost of a transaction to the issuer. On October 1, 2011, the Federal Reserve Board set the interchange rate cap at \$0.24 per transaction. While the restriction on interchange fees do not affect banks with assets less than \$10 billion, the rule could affect the cost of debit cards issued by smaller banks.

Consumer Financial Protection Bureau. Dodd-Frank created the independent federal agency of the Consumer Financial Protection Bureau (“CFPB”), which is granted broad rulemaking, supervisory and enforcement powers under various federal consumer financial protection laws, including the Equal Credit Opportunity Act, Truth in Lending Act, Real Estate Settlement Procedures Act, Fair Credit Reporting Act, Debt Collection Act, the Consumer Financial Privacy provisions of the Gramm-Leach-Bliley Act and other statutes. The CFPB has examination and primary enforcement authority with respect to depository institutions with \$10 billion or more in assets. Smaller institutions are subject to rules promulgated by the CFPB but continue to be examined and supervised by federal banking regulators for consumer compliance. The CFPB has authority to prevent unfair, deceptive or abusive practices in connection with the sale of consumer financial products. Dodd-Frank authorizes the CFPB to establish certain minimum standards for the origination of residential mortgages including a determination of the borrower’s ability to repay. Dodd-Frank will allow borrowers to raise certain defenses to foreclosure if they receive any loan that is a “qualified mortgage” as defined by the CFPB. Dodd-Frank permits states to adopt consumer protection standards that are more stringent than those adopted at the federal level and, in certain circumstances, state attorneys general to enforce compliance with both the state and federal laws and regulations.

Department of Defense Military Lending Rule

In 2015, the U.S. Department of Defense issued a final rule which restricts pricing and terms of credit extended to active duty military personnel and their families. This rule, which was implemented on October 3, 2016, caps the interest rate on certain credit extensions to an annual percentage rate of 6% and restricts other fees. The rule requires financial institutions to verify whether customers are military personnel subject to the rule. The impact of this final rule, and any subsequent amendments thereto, on the Corporation's lending activities and the Corporation's statements of income or condition has had little or no impact. Management will continue to monitor the implementation of the rule for any potential side effects on the Corporation's business.

Available Information

The Corporation's common stock is registered under Section 12(g) of the Exchange Act. The Corporation is subject to the informational requirements of the Exchange Act, and, accordingly, files reports, proxy statements, and other information with the SEC. The Corporation is an electronic filer with the SEC. The Corporation's internet site that contains reports, proxy and information statements, and other information regarding the Corporation is www.ziopharm.com. The Corporation files electronically with the SEC. The SEC's internet site address is www.sec.gov.

A copy of the Corporation's Annual Report on Form 10-K may be obtained without charge at www.ziopharm.com or via email at info@fkcbank.com. Quarterly reports on Form 10-Q, current event reports on Form 8-K, and amendments to these reports, may be obtained without charge via email at info@fkcbank.com. Reports may also be obtained via written request to Investor Relations at First Keystone Corporation, Attention: Investor Relations, Wynings, 111 West Front Street, P.O. Box 289, Berwick, Pennsylvania 18603, or by telephone at (717) 398-1175, extension 1175.

ITEM 1A. RISK FACTORS

Investments in the Corporation's common stock involve risk. The market price of the Corporation's common stock may fluctuate significantly in response to a number of factors, including:

The Corporation is subject to interest rate risk.

The Corporation's earnings and cash flows are largely dependent upon its net interest income. Net interest income is the difference between interest income earned on interest-earning assets such as loans and interest expense paid on interest-bearing liabilities such as deposits and borrowed funds. Net interest income is highly sensitive to many factors that are beyond the Corporation's control, including general economic conditions and policies of various governmental and regulatory agencies and, in particular, the Board of Governors of the Federal Reserve System. Changes in monetary policy, including changes in interest rates, could affect not only the interest the Corporation receives on loans and securities and the amount of interest it pays on deposits and borrowings, but such changes could also affect (i) the Corporation's ability to originate loans and deposits, (ii) the fair value of the Corporation's financial assets and liabilities, and (iii) the average yield on the Corporation's mortgage-backed securities portfolio. If the interest rates paid on deposits and other borrowings increase at a faster rate than the interest rates received on loans and other investments, the Corporation's net interest income, and therefore earnings, could be adversely affected. Earnings could also be adversely affected if the interest rates received on loans and other investments fall more quickly than the interest rates paid on deposits and other borrowings.

Although management believes it has implemented effective asset and liability management strategies to mitigate the potential effects of changes in interest rates on the Corporation's results of operations, any significant, unexpected, or prolonged change in market interest rates could have a material adverse effect on the Corporation's financial condition and results of operations.

The Corporation is subject to lending risk.

As of December 31, 2018, approximately 72.7% of the Corporation's loan portfolio consisted of Commercial and Industrial loans and Commercial Real Estate loans (including construction loans), both of which have a tax-free component. These types of loans are generally viewed as having more risk of default than Residential Real Estate loans or Consumer loans. Commercial and Industrial and Commercial Real Estate loans are typically larger than Residential Real Estate loans and Consumer loans. Because the Corporation's loan portfolio contains a significant number of Commercial and Industrial and Commercial Real Estate loans with large balances, the deterioration of one or a few of these loans could cause a significant increase in non-performing loans. An increase in non-performing loans could result in a net loss of earnings, an increase in the provision for loan losses and an increase in loan charge-offs, all of which could have a material adverse effect on the Corporation's financial condition and results of operations.

If the Corporation's Allowance for Loan Losses is not sufficient to cover actual loan losses, earnings may decrease.

The Corporation's loan customers may not repay their loans according to the terms of their loan agreements and the collateral securing the payment of their loans may be insufficient to assure repayment. The Corporation has experienced significant credit losses, which could have a material adverse effect on its operating results. In determining the amount of the allowance for loan losses, the Corporation reviews its loans and its delinquency experience and evaluates economic conditions. If the Corporation's assumptions prove to be incorrect, the allowance for loan losses may not cover inherent losses in its loan portfolio at the time of the financial statements. Material additions to the Corporation's allowance would materially decrease earnings. As of December 31, 2018, the allowance for loan losses totaled \$6.7 million, representing 1.15% of average loans.

Although the Corporation believes its underwriting standards are sufficient to manage normal loan losses, it is difficult to assess the future performance of the loan portfolio due to ongoing new originations. The Corporation cannot assure that non-performing loans will not increase or that non-performing or delinquent loans will not adversely affect future performance.

In addition, federal regulators periodically review the Corporation's allowance for loan losses and may require the Corporation to increase the allowance for loan losses or recognize further loan charge-offs. Any increase in the allowance for loan losses or loan charge-offs as required by these regulatory agencies could have a material adverse effect on the results of operations and financial condition.

A new accounting standard will result in a significant change in how we recognize credit losses with a material impact on our financial condition or results of operations.

In June 2016, the Financial Accounting Standards Board (“FASB”) issued an accounting standard, “Financial Instruments-Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments,” which replaces the current “incurred loss” model for recognizing credit losses with an “expected credit loss” model, also known as the Current Expected Credit Loss (“CECL”) model. Under the CECL model, we will be required to measure certain financial assets carried at amortized cost, such as loans held for investment and held-to-maturity securities, at the net amount expected to be collected. The measurement of expected credit losses is based on information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. This measurement will be performed at the time the financial asset is first added to the balance sheet and periodically thereafter. This differs significantly from the “incurred loss” model required under current generally accepted accounting principles (“GAAP”), which delays recognition until it is probable a loss has been incurred. Accordingly, the adoption of the CECL model will materially affect how we determine our allowance for loan losses and may require us to significantly increase our allowance. Moreover, the CECL model may create more volatility in the level of our allowance for loan losses. If we are required to materially increase our level of allowance for loan losses for any reason, such increase could adversely affect our business, financial condition and results of operations. The new CECL standard will become effective for us on January 1, 2020 and for interim periods ending within that year.

The Corporation's information systems may experience an interruption or breach in security.

The Corporation relies heavily on communications and information systems to conduct its business. An interruption or breach in security of these systems could result in failures or disruptions in the Corporation's customer relationship management, general ledger, deposit, loan and other systems. The Corporation has policies and procedures designed to prevent or limit the effect of the failure, interruption or security breach of its information systems; however, there can be no assurance that any such failures, interruptions or breaches will not occur. While the Corporation maintains insurance coverage that may, subject to terms and conditions including significant self-insured deductibles, cover certain aspects of cyber risk, such coverage may be insufficient to cover all losses. The occurrence of any failures, interruptions or breaches of the Corporation's information systems could damage the Corporation's reputation and customer or investor confidence, result in a loss of customer business, subject the Corporation to regulatory scrutiny and possible regulatory penalties, or expose the Corporation to civil litigation and financial liability, any of which could have a material adverse effect on the Corporation's financial results of operations.

Severe weather, natural disasters, acts of war or terrorism and other external events could significantly impact the Corporation's business.

Severe weather, natural disasters, acts of war or terrorism and other adverse external events could have a significant impact on the Corporation's ability to conduct business. Such events could affect the Corporation's deposit base; impair the ability of borrowers to repay outstanding loans, impair the Corporation's collateral securing loans, cause significant property damage, result in loss of revenue and/or cause the Corporation to incur additional expenses. Severe weather or natural disasters, acts of war or terrorism and other adverse external events may occur in the future. Although management has established disaster recovery plans and procedures, the occurrence of any such event could have a material adverse effect on the Corporation's business, which, in turn, could have a material adverse effect on the Corporation's financial condition and results of operations.

The Corporation operates in a highly competitive industry.

The Corporation faces substantial competition in all areas of its operations from a variety of different competitors, many of which are larger and may have more financial resources and greater technology. Competitors primarily include national, regional and community banks within the various markets in which the Corporation operates. The Corporation also faces competition from many other types of financial institutions, including, without limitation, credit unions, finance companies, brokerage firms, insurance companies and other financial intermediaries. Also, technology has lowered barriers to entry and

possible for non-banks to offer products and services traditionally provided by banks, such as opening, automatic transfer and automatic payment systems. Many of the Corporation's competitors face regulatory constraints and may have lower cost structures.

The Corporation's ability to compete successfully depends on a number of factors, including, among other things:

The ability to develop, maintain and build upon long-term customer relationships based on top quality products and high ethical standards and safe, sound assets;

- The ability to expand the Corporation's market position;
- The scope, relevance and pricing of products and services offered to meet customer needs and preferences;
- The rate at which the Corporation introduces new products and services relative to its competitors;
- Customer satisfaction with the Corporation's level of service; and
- Industry and general economic trends.

Failure to perform in any of these areas could significantly weaken the Corporation's competitive position and could adversely affect the Corporation's growth and profitability, which, in turn, could have a negative effect on the Corporation's financial condition and results of operations.

New lines of business or new products and services may subject the Corporation to additional risks.

From time-to-time, the Corporation may implement new lines of business or offer new products within existing lines of business. There are substantial risks and uncertainties associated with this, particularly in instances where the markets are not fully developed. In developing and marketing new lines of business and/or new products and services, the Corporation may invest significant time and resources. Timetables for the introduction and development of new lines of business and/or new products may not be achieved and price and profitability targets may not prove feasible. External factors, such as changes in regulations, competitive alternatives and shifting market preferences, may also impact the implementation of a new line of business or a new product or service. Furthermore, any new line of business and/or new product or service could have a significant impact on the effectiveness of the Corporation's internal controls. Failure to successfully manage these risks in the development and implementation of business or new products or services could have a material adverse effect on the Corporation's results of operations and financial condition.

The Basel III capital requirements may require the Corporation to maintain higher levels of capital, which could reduce its profitability.

Basel III targets higher levels of base capital, certain capital buffers and a migration toward common equity as the key source of regulatory capital. Although the new capital requirements are still being phased in, they will change substantially before final implementation. Basel III signals a growing effort by domestic and international bank regulatory agencies to require financial institutions, including depository institutions, to maintain higher levels of capital. As Basel III is implemented, regulatory viewpoints could characterize the Corporation as requiring additional capital to support the Corporation's business risk profile prior to final implementation of the new standards. If the Corporation and the Bank are required to maintain higher levels of capital, the Bank may have fewer opportunities to invest capital into interest-earning assets, which could reduce the profitable business operations available to the Corporation and the Bank and adversely impact its financial condition and results of operations.

Federal income tax reform could have unforeseen effects on our financial condition and results of operations.

On December 22, 2017, the President of the United States signed into law H.R. 1, originally known as the "Tax Cuts and Jobs Act." The Tax Cuts and Jobs Act includes a number of provisions, including the reduction of the U.S. corporate tax rate from 34 percent to 21 percent, effective January 1, 2018. There are also provisions that may partially offset the benefit of such rate reduction. Financial statement impacts include adjustments to deferred tax assets and liabilities, among other things, the re-measurement of deferred tax assets and liabilities. While there are benefits to the Corporation, there is also substantial uncertainty regarding the details of U.S. Tax Reform. The long-term intended effects are uncertain.

consequences of Tax Cuts and Jobs Act on our business and on holders of our common shares i could be adverse. The Corporation anticipates that the long-term impact of Tax Cuts and Jobs A material to our business, financial condition and results of operations.

If the Corporation concludes that the decline in value of any of its securities is other than tempo Corporation will be required to write down the credit-related portion of the impairment of that a charge to earnings.

Management reviews its securities portfolio at each quarter-end reporting period to determine w value is below the current carrying value. When the fair value of any of its investment securities below its carrying value, management is required to assess whether the decline is other than tempo management concludes that the decline is other than temporary, management will be required to credit-related portion of the impairment of that security through a charge to earnings. Due to the the calculations and assumptions used in determining whether an asset is impaired, the impairm may not accurately reflect the actual impairment in the future.

The changes in control of the United States government and issues relating to debt and the defit affect the Corporation.

Due to the Republican Party controlling of the White House, as well as the Republican Party ma losing control of both the House of Representatives and Senate of the United States in future ele result in significant changes (or uncertainty) in governmental policies, regulatory environments, sentiment and many other factors and conditions, some of which could adversely impact the Co business, financial condition and results of operations.

In addition, as a result of past difficulties of the federal government to reach agreement over federal budget and ongoing issues connected with the debt ceiling, certain rating agencies placed the United States' long-term sovereign debt rating on their equivalent of negative watch and announced the possibility of a downgrade. The rating agencies, due to constraints related to the rating of the United States, also placed government-sponsored enterprises in which the Corporation invests and receives lines of credit on negative watch and a downgrade of the United States' credit rating would trigger a similar downgrade in the ratings of these government sponsored enterprises. Furthermore, the credit rating of other entities, such as state and local governments, may also be downgraded should the United States credit rating be downgraded. The impact of a credit rating downgrade may have on the national and local economy could have an adverse effect on the Corporation's financial condition and results of operations.

The Corporation's profitability depends significantly on economic conditions in the Commonwealth of Pennsylvania.

The Corporation's success depends primarily on the general economic conditions of the Commonwealth of Pennsylvania and the specific local markets in which the Corporation operates. Unlike larger national and regional banks that are more geographically diversified, the Corporation provides banking and financial services primarily to customers primarily in Columbia, Luzerne, Montour, Monroe, and Northampton counties. The economic conditions in these areas have a significant impact on the demand for the Corporation's products and services, as well as the ability of the Corporation's customers to repay loans, the value of the collateral security, and the stability of the Corporation's deposit funding sources. Also, a significant decline in general economic conditions could impact the local economic conditions and, in turn, have a material adverse effect on the Corporation's financial condition and results of operations.

The Corporation's future acquisitions could dilute stockholders' ownership and may cause the Corporation to become more susceptible to adverse economic events.

The Corporation may use its common stock to acquire other companies or make investments in other complementary businesses in the future. The Corporation may issue additional shares of common stock for future acquisitions, which would dilute stockholders' ownership interest in the Corporation. The Corporation's acquisitions could be material to the Corporation, and the degree of success achieved in acquiring and integrating these businesses into the Corporation could have a material effect on the value of the Corporation's common stock. In addition, any acquisition could require the Corporation to use substantial cash resources, assets or to incur debt. In those events, the Corporation could become more susceptible to economic and competitive pressures.

The Corporation may not be able to attract and retain skilled people.

The Corporation's success depends, in large part, on its ability to attract and retain key people. Competition for the best people in most activities engaged in by the Corporation can be intense and the Corporation may not always be able to hire people or to retain them. The unexpected loss of services of one or more of the Corporation's key personnel could have a material adverse impact on the Corporation's business because of their specialized skills, knowledge of the Corporation's market, years of industry experience and the difficulty of promptly finding replacement personnel.

The Corporation is subject to extensive government regulation and supervision.

The Corporation, primarily through the Bank, is subject to extensive federal and state regulation. Banking regulations are primarily intended to protect depositors' funds, federal deposit insurance and the stability of the banking system as a whole, not shareholders. These regulations affect the Corporation's lending practices, capital structure, investment practices, dividend policy and growth, among other things. Congress and regulatory agencies continually review banking laws, regulations and policies for possible changes. Changes in regulations or regulatory policies could affect the Corporation in substantial and unpredictable ways. Such changes could subject the Corporation to additional costs, limit the types of financial services and products the Corporation may offer and/or increase the ability of non-banks to offer competing financial services and products, among other things. Failure to comply with laws, regulations or policies could result in fines from regulatory agencies, civil money penalties and/or reputation damage, which could have a material adverse impact on the Corporation's business, financial condition and results of operations.

The Corporation is subject to claims and litigation pertaining to fiduciary responsibility.

From time to time, customers make claims and take legal action pertaining to the Corporation's its fiduciary responsibilities. Whether customer claims and legal action related to the Corporation of its fiduciary responsibilities are founded or unfounded, and if such claims and legal actions a a manner favorable to the Corporation, they may result in significant financial liability and/or a the market perception of the Corporation and its products and services as well as impact custom those products and services. Any financial liability or reputation damage could have a material the Corporation's financial condition and results of operations.

The trading volume in the Corporation's common stock is less than that of other larger financial companies.

The Corporation's common stock is not currently listed on a national stock exchange, but traded Counter Market. As a result, trading volume is less than that of other larger financial services co public trading market having the desired characteristics of depth, liquidity and orderliness depe presence in the marketplace of willing buyers and sellers of the Corporation's common stock at This presence depends on the individual decisions of investors and general economic and marke which the Corporation has no control. Given the lower trading volume of the Corporation's com significant sales of the Corporation's common stock, or the expectation of these sales, could cau Corporation's stock price to fall.

The Corporation's controls and procedures may fail or be circumvented.

Management regularly reviews and updates the Corporation's internal controls, disclosure contr procedures, and corporate governance policies and procedures. Any system of controls, howeve and operated, is based in part on certain assumptions and can provide only reasonable, not absol that the objectives of the system are met. Any failure or circumvention of the Corporation's con procedures or failure to comply with regulations related to controls and procedures could have a effect on the Corporation's business, results of operations and financial condition.

The Corporation continually encounters technological change.

The financial services industry is continually undergoing rapid technological change with frequent introduction of new technology-driven products and services. The effective use of technology increases efficiency and enables financial institutions to better serve customers and to reduce costs. The Corporation's future success depends, in part, upon its ability to address the needs of its customers by using technology to provide products and services that will satisfy customer demands, as well as to create additional efficiencies in its operations. Many of the Corporation's competitors have substantially greater resources to invest in technology improvements. The Corporation may not be able to effectively implement new technology-driven products or services or be successful in marketing these products and services to its customers. Failure to keep pace with technological change affecting the financial services industry could have a material adverse effect on the Corporation's business and, in turn, the Corporation's financial condition and results of operations.

The Corporation may need or be compelled to raise additional capital in the future, but that capital will be available when it is needed and on terms favorable to current shareholders.

Federal banking regulators require the Corporation and Bank to maintain adequate levels of capital to support their operations. These capital levels are determined and dictated by law, regulation and banking supervisory agencies. In addition, capital levels are also determined by the Corporation's management and based on capital levels that they believe are necessary to support the Corporation's business operations. The Corporation is evaluating its present and future capital requirements and needs, is developing a long-term capital plan and is analyzing capital raising alternatives, methods and options. Even if the Corporation is successful in meeting the current regulatory capital requirements, the Corporation may need to raise additional capital in the near future to support possible loan losses during future periods or to meet future regulatory capital requirements.

Further, the Corporation's regulators may require it to increase its capital levels. If the Corporation raises additional capital through the issuance of additional shares of its common stock or other securities, it would likely dilute the ownership interests of current investors and would likely dilute the per-share book value and earnings of its common stock. Furthermore, it may have an adverse impact on the Corporation's stock price. Current investors may also have rights, preferences and privileges senior to the Corporation's current shareholders, which may adversely impact its current shareholders. The Corporation's ability to raise additional capital depends on conditions in the capital markets at that time, which are outside its control, and on its financial performance. Accordingly, the Corporation cannot assure the shareholders of its ability to raise additional capital in time frames acceptable to it or to raise additional capital at all. If the Corporation cannot raise additional capital in sufficient amounts when needed, its ability to comply with regulatory capital requirements could be impaired. Additionally, the inability to raise capital in sufficient amounts may adversely affect the Corporation's operations, financial condition and results of operations.

The Corporation is subject to environmental liability risk associated with lending activities.

A significant portion of the Corporation's loan portfolio is secured by real property. During the course of its business, the Corporation may foreclose on and take title to properties securing certain loans. There is a risk that hazardous or toxic substances could be found on these properties. If hazardous substances are found, the Corporation may be liable for remediation costs, as well as for personal injury and property damage. Environmental laws may require the Corporation to incur substantial expenses that may materially reduce the affected property's value or limit the Corporation's ability to use or sell the property. In addition, future laws, or more stringent interpretations or enforcement policies with respect to existing laws, may increase the Corporation's exposure to environmental liability. Although the Corporation has policies and procedures to perform an environmental review before initiating any foreclosure action on real property, these reviews may not be sufficient to detect all potential environmental hazards. The costs and any other financial liabilities associated with an environmental hazard could have a material adverse effect on the Corporation's financial condition and results of operations.

The Corporation's ability to pay dividends is subject to limitations.

The Corporation is a bank holding company and its operations are conducted by the Bank, which is a separate and distinct legal entity. Substantially all of the Corporation's assets are held by the Bank.

The Corporation's ability to pay dividends depends on its receipt of dividends from the Bank, its share of dividends. Dividend payments from the Bank are subject to legal and regulatory limitations, including those based on net profits and retained earnings, imposed by the various banking regulatory agencies. The Corporation's ability to pay dividends is also subject to their profitability, financial condition, capital exp

other cash flow requirements. There is no assurance that the Bank will be able to pay dividends that the Corporation will generate adequate cash flow to pay dividends in the future. The Corporation's ability to pay dividends on its common stock could have a material adverse effect on the market price of its common stock.

Pennsylvania Business Corporation Law and various anti-takeover provisions under its Articles of Incorporation and Bylaws could impede the takeover of the Corporation.

Various Pennsylvania laws affecting business corporations may have the effect of discouraging the acquisition of the Corporation, even if the acquisition would be advantageous to shareholders. In addition, the Corporation has adopted various anti-takeover measures in place under its Articles of Incorporation and Bylaws, including the staggered board of directors and the absence of cumulative voting. Any one or more of these measures may discourage or prevent the takeover of the Corporation without the approval of its Board of Directors and may prevent its shareholders from taking part in a transaction in which they could realize a premium over the current market price of its common stock.

The Corporation's banking subsidiary may be required to pay higher FDIC insurance premium assessments which may adversely affect its earnings.

Since the Great Recession, poor economic conditions and the resulting bank failures increased the FDIC and depleted its deposit insurance fund. In more recent history, the FDIC fund position has improved and the cost basis has been updated which in some cases can result in decreased costs of the insurance. Additional bank failures may prompt the FDIC to increase its premiums above the recently increased rates and issue special assessments. The Corporation is generally unable to control the amount of premium assessments that its subsidiary is required to pay for FDIC insurance. Any future changes in the assessment of FDIC insurance premiums may have a material adverse effect on the Corporation's operations, financial condition, and its ability to continue to pay dividends on its common stock at the current rate or at all.

The increasing use of social media platforms presents new risks and challenges and our inability to recognize, respond to and effectively manage the accelerated impact of social media could materially impact our business.

There has been a marked increase in the use of social media platforms, including weblogs (blogs), social media websites, and other forms of Internet-based communications which allow individuals access to a wide range of consumers and other interested persons. Social media practices in the banking industry are evolving and creates uncertainty and risk of noncompliance with regulations applicable to our business. Consumers can readily access readily available information concerning businesses and their goods and services and often act on this information without further investigation and without regard to its accuracy. Many social media platforms immediately publish the content their subscribers and participants post, often without filters or controls over the accuracy of the content posted. Information posted on such platforms at any time may be adverse to our business and/or may be inaccurate. The dissemination of information online could harm our business, operations, financial condition, and results of operations, regardless of the information's accuracy. The harm may be immediate and without affording us an opportunity for redress or correction.

Other risks associated with the use of social media include improper disclosure of proprietary information, negative comments about our business, exposure of personally identifiable information, fraud, customer information, and improper use by employees and customers. The inappropriate use of social media by our customers or employees could result in negative consequences including remediation costs including legal fees, employees, additional regulatory scrutiny and possible regulatory penalties, litigation or negative publicity which could damage our reputation adversely affecting customer or investor confidence.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

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ITEM 2. PROPERTIES

The Corporation and its subsidiary occupy nineteen branch properties in Columbia, Luzerne, Montour and Northampton counties in Pennsylvania, which are used principally as banking offices.

Properties owned are:

- Main Office located at 111 West Front Street, Berwick, Pennsylvania 18801;
 - Salem Office located at 400 Fowler Avenue, Berwick, Pennsylvania 18801;
 - Freas Avenue Office located at 701 Freas Avenue, Berwick, Pennsylvania 18801;
 - Scott Township Office located at 2301 Columbia Boulevard, Bloomsburg, Pennsylvania 17815;
 - Mifflinville Office located at 133 West Third Street, Mifflinville, Pennsylvania 18631;
 - Hanover Township Office located at 1540 Sans Souci Parkway, Hanover Township, Pennsylvania 17331;
 - Danville Office located at 1049 Bloom Road, Danville, Pennsylvania 17827;
 - Mountainhome Office located at 1154 Route 390, Cresco, Pennsylvania 18826;
 - Brodheadsville Office located at 2022 Route 209, Brodheadsville, Pennsylvania 18844;
 - Swiftwater Office located at 2070 Route 611, Swiftwater, Pennsylvania 18846;
 - Plymouth Office located at 463 West Main Street, Plymouth, Pennsylvania 18859;
 - Kingston Office located at 299 Wyoming Avenue, Kingston, Pennsylvania 18824;
 - Dallas Office located at 2325 Memorial Highway, Dallas, Pennsylvania 18848;
 - Shickshinny Office located at 107 South Main Street, Shickshinny, Pennsylvania 18849;
 - Stroudsburg Office located at 559 Main Street, Stroudsburg, Pennsylvania 18356;
- Properties located at Second and Market Streets, and Third and Bowman Streets, Berwick, Pennsylvania 18801, and
- 20 ATMs located in Columbia, Luzerne, Montour and Monroe counties.

Properties leased are:

- Briar Creek Office located inside the Giant Market at 50 Briar Creek Plaza, Berwick, Pennsylvania 18801;
- Nescopeck Office located at 437 West Third Street, Nescopeck, Pennsylvania 18635;
- Mountain Top Office located at 18 North Mountain Boulevard, Mountain Top, Pennsylvania 18851 (the building is leased and the bank building is owned); and
- Loan Processing Office at 559 Main Street, Suite 114, Bethlehem, Pennsylvania 18018.

ITEM 3. LEGAL PROCEEDINGS

The Corporation and/or the Bank are defendants in various legal proceedings arising in the ordinary course of their business. However, in the opinion of management of the Corporation and the Bank, there are no legal proceedings pending to which the Corporation and the Bank is a party or to which their property is subject, which, if determined adversely to the Corporation and the Bank, would be material in relation to the Corporation's and Bank's individual profits or financial condition, nor are there any proceedings

than ordinary routine litigation incident to the business of the Corporation and the Bank. In addition, proceedings are pending or are known to be threatened or contemplated against the Corporation or government authorities or others.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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PART II

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

The Corporation's common stock is traded in the over-the-counter market on the OTC Market under the symbol "FKYS". The following table sets forth:

The quarterly high and low prices for a share of the Corporation's common stock during the period indicated as reported to the management of the Corporation;
 Quarterly dividends on a share of the common stock paid with respect to each quarter since January 1, 2017, and
 The quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and do not represent actual transactions.

MARKET VALUE OF COMMON STOCK

2018	High	Low	Per Share Dividend Paid
First quarter	\$ 28.75	\$ 26.01	\$ 0.27
Second quarter	\$ 28.99	\$ 26.25	\$ 0.27
Third quarter	\$ 27.00	\$ 25.11	\$ 0.27
Fourth quarter	\$ 26.50	\$ 20.31	\$ 0.27

2017	High	Low	Dividend Paid
First quarter	\$26.50	\$24.25	\$ 0.27
Second quarter	\$27.65	\$25.01	\$ 0.27
Third quarter	\$28.25	\$26.50	\$ 0.27
Fourth quarter	\$29.30	\$27.00	\$ 0.27

As of December 31, 2018, the Corporation had approximately 916 shareholders of record.

The Corporation has paid dividends since commencement of business in 1984. It is the present policy of the Corporation's Board of Directors to continue the dividend payment policy. Stock value, cost of capital, and the Corporation's present and anticipated capital needs are weighed in the

a responsible decision. Further dividends must necessarily depend upon earnings, financial condition, and other factors relevant at the time the Board of Directors of the Corporation considers its dividend policy. Cash available for dividend distributions to shareholders of the Corporation initially come from dividends paid by the Bank to the Corporation. Therefore, the restrictions on dividend payments are directly applicable to the Corporation.

Transfer Agent:

Computershare (800) 368-5948
P.O. Box 30170
College Station, TX 77842-3170

The following brokerage firms make a market in First Keystone Corporation common stock:

RBC Wealth Management (800) 223-4207
Janney Montgomery Scott LLC (800) 526-6397
Stifel Nicolaus & Co. Inc. (800) 679-5446
Boenning & Scattergood, Inc. (800) 883-1212

Dividend Restrictions on the Bank

Generally, as a Pennsylvania state chartered bank, under Pennsylvania banking law, the Bank may not pay dividends out of accumulated net earnings.

Dividend Restrictions on the Corporation

Under the Pennsylvania Business Corporation Law of 1988, as amended, the Corporation may not pay a dividend if, after giving effect thereto, either:

- The Corporation would be unable to pay its debts as they become due in the usual course of business;
- The Corporation's total assets would be less than its total liabilities.

The determination of total assets and liabilities may be based upon:

- Financial statements prepared on the basis of generally accepted accounting principles.

Financial statements that are prepared on the basis of other accounting practices and principles reasonable under the circumstances; or

· A fair valuation or other method that is reasonable under the circumstances

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ITEM 6. SELECTED FINANCIAL DATA

(Dollars in thousands, except per share data)

	For the Year Ended December 31,			
	2018	2017	2016	2015
SELECTED FINANCIAL DATA AT YEAR END:				
Total assets	\$1,012,000	\$990,121	\$984,283	\$983,441
Total investment securities	317,614	350,218	379,641	385,200
Net loans	599,647	551,910	515,025	509,800
Total deposits	671,553	778,146	725,982	720,500
Total long-term borrowings	45,000	65,000	75,116	70,230
Total stockholders' equity	116,756	116,719	109,685	108,400
SELECTED OPERATING DATA:				
Interest income	\$35,573	\$32,268	\$31,643	\$31,710
Interest expense	8,620	6,548	5,282	4,966
Net interest income	26,953	25,720	26,361	26,744
Provision for loan losses	200	267	2,083	2,277
Net interest income after provision for loan losses	26,753	25,453	24,278	24,467
Non-interest income	5,562	6,171	7,387	7,697
Non-interest expense	22,645	21,521	20,348	21,020
Income before income tax expense	9,670	10,103	11,317	11,144
Income tax expense	459	1,455	1,845	1,971
Net income	\$9,211	\$8,648	\$9,472	\$9,172
PER SHARE DATA:				
Net income	\$1.60	\$1.52	\$1.68	\$1.64
Dividends	1.08	1.08	1.08	1.08
PERFORMANCE RATIOS:				
Return on average assets	0.92	% 0.86	% 0.96	% 0.96
Return on average equity	8.05	% 7.54	% 8.23	% 8.43
Dividend payout	67.26	% 71.05	% 64.30	% 65.79
Average equity to average assets	11.39	% 11.45	% 11.68	% 11.40

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

The purpose of Management's Discussion and Analysis of First Keystone Corporation, a bank holding company (the "Corporation"), and its wholly owned subsidiary, First Keystone Community Bank (the "Bank"), is to provide the reader in reviewing the financial information presented and should be read in conjunction with the Corporation's financial statements and other financial data contained herein. Refer to Forward Looking Statements for detailed information.

RESULTS OF OPERATIONS

Year Ended December 31, 2018 Versus Year Ended December 31, 2017

Net income increased to \$9,211,000 for the year ended December 31, 2018, as compared to \$8,290,000 in the prior year, an increase of 6.5%. Earnings per share, both basic and diluted, for 2018 was \$1.60 as compared to \$1.52 in 2017, an increase of 5.3%. Dividends per share for 2018 and 2017 were \$1.08. The Corporation's return on average assets was 0.92% in 2018 and 0.86% in 2017. Return on average equity increased to 10.2% in 2018 from 7.54% in 2017. Total interest income in 2018 amounted to \$35,573,000, an increase of \$3,305,000 or 10.2% from 2017. Total interest expense of \$8,620,000 increased \$2,072,000 or 31.6% from 2017. \$6,548,000 of this increase related to an increase in interest paid on short-term borrowings in 2018.

Net interest income, as indicated below in Table 1, increased by \$1,233,000 or 4.8% to \$26,953,000 for the year ended December 31, 2018. The Corporation's net interest income on a fully tax equivalent basis increased by \$954,000, or 3.3% to \$29,574,000 in 2018 as compared to \$28,620,000 in 2017.

Table 1 — Reconciliation of Taxable Equivalent Net Interest Income

(Dollars in thousands)	2018/2017			
	Increase/(Decrease)		%	2017
	2018	Amount		
Interest Income	\$35,573	\$3,305	10.2	\$32,268
Interest Expense	8,620	2,072	31.6	6,548
Net Interest Income	26,953	1,233	4.8	25,720

Tax Equivalent Adjustment	2,621	(279)	(9.6)	2,900
Net Interest Income (fully tax equivalent)	\$29,574	\$954		3.3		\$28,620

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Table 2 — Average Balances, Rates and Interest Income and Expense

(Dollars in thousands)

	2018 Average Balance	Interest	Yield/ Rate	2017 Average Balance	In
Interest Earning Assets:					
Loans:					
Commercial, net ^{1,2,4}	\$ 102,307	\$ 3,847	3.76 %	\$ 94,075	\$
Real Estate ^{1,2}	476,883	21,334	4.47 %	435,944	
Consumer, net ^{1,4}	5,770	498	8.63 %	6,035	
Fees on Loans	—	602	0 %	—	
Total Loans ⁵	584,960	26,281	4.49 %	536,054	
Investment Securities:					
Taxable	173,936	4,631	2.66 %	200,943	
Tax-Exempt ^{1,3}	161,374	6,803	4.22 %	181,698	
Total Investment Securities	335,310	11,434	3.41 %	382,641	
Restricted Investment in Bank Stocks	6,516	443	6.80 %	5,847	
Interest-Bearing Deposits in Other Banks	2,762	36	1.30 %	2,637	
Total Other Interest Earning Assets	9,278	479	5.16 %	8,484	
Total Interest Earning Assets	929,548	38,194	4.11 %	927,179	
Non-Interest Earning Assets:					
Cash and Due From Banks	8,335			8,294	
Allowance for Loan Losses	(7,151)			(7,445)	
Premises and Equipment	20,300			19,171	
Other Assets	54,302			54,786	
Total Non-Interest Earning Assets	75,786			74,806	
Total Assets	\$ 1,005,334			\$ 1,001,985	
Interest Bearing Liabilities:					
Savings, NOW Accounts, and Money Markets	\$ 387,999	\$ 2,081	0.54 %	\$ 410,094	\$
Time Deposits	208,402	3,111	1.49 %	197,128	
Securities Sold U/A to Repurchase	15,481	87	0.56 %	21,872	
Short-Term Borrowings	96,120	2,190	2.28 %	64,840	
Long-Term Borrowings	53,740	1,151	2.14 %	68,180	
Total Interest Bearing Liabilities	761,742	8,620	1.13 %	762,114	
Non-Interest Bearing Liabilities:					
Demand Deposits	124,613			118,621	
Other Liabilities	4,514			6,498	
Stockholders' Equity	114,465			114,752	
Total Liabilities/Stockholders' Equity	\$ 1,005,334			\$ 1,001,985	

Net Interest Income Tax Equivalent	\$29,574	\$
Net Interest Spread	2.98 %	
Net Interest Margin	3.18 %	

¹Tax-exempt income has been adjusted to a tax equivalent basis using an incremental rate of 21% in 2018, 2017 and 2016, and 34% in 2017, and statutory interest expense disallowance.

²Includes tax equivalent adjustments on tax-free municipal loans of \$395,000 and \$442,000 for 2018 and 2017, respectively.

³Includes tax equivalent adjustments on tax-free municipal securities of \$2,226,000 and \$2,458,000 for 2018 and 2017, respectively.

⁴Installment loans are stated net of unearned interest.

⁵Average loan balances include non-accrual loans. Interest income on non-accrual loans is not included in the calculation of net interest income.

NET INTEREST INCOME

The major source of operating income for the Corporation is net interest income. Net interest income is the difference between interest income on earning assets, such as loans and securities, and the interest expense on liabilities used to fund those assets, including deposits and other borrowings. The amount of net interest income is dependent upon both the volume of earning assets and the level of interest rates. In addition, the amount of non-performing loans affects interest income. The amount of interest expense varies with the amount of funds needed to support earning assets, interest rates paid on deposits and borrowed funds, and finally, the amount of interest free deposits.

Table 2 on the preceding page provides a summary of average outstanding balances of earning assets and interest bearing liabilities with the associated interest income and interest expense as well as average net interest income earned and paid as of year-end 2018 and 2017.

The yield on earning assets was 4.11% in 2018 and 3.79% in 2017. The rate paid on interest bearing liabilities was 1.13% in 2018 and 0.86% in 2017. This resulted in an increase in our net interest spread to 2.98% in 2018 as compared to 2.93% in 2017.

As Table 2 illustrates, net interest margin, which is interest income less interest expense divided by the average balance of earning assets, was 3.18% in 2018 as compared to 3.09% in 2017. Net interest margins are presented on a tax-equivalent basis. In 2018, yield on earning assets increased by 0.32%, from 3.79% to 4.11%. The rate paid on interest bearing liabilities increased 0.27%. As loans were repaid and refinanced, the proceeds were reinvested at higher, current rates. This was the primary cause of the higher yield on loans. The primary reason for the increased yield in the investment portfolio was due to the sale of tax-exempt securities and the increase in yields along with the purchase of mortgage backed and asset backed securities with higher yields. The amount of Savings, NOW and money market interest expense increased as a result of the Bank branded Keefe's suite of high interest rewards checking and savings accounts. Average short-term borrowings in 2018 were \$31,280,000 while the average rate paid on these borrowings increased by 1.12% from 1.16% to 2.28%. Average tax-exempt income exempt from federal tax was \$5,387,000 in 2018 and \$5,875,000 in 2017. Interest income on tax-exempt securities for federal tax decreased due to the sales of tax-exempt securities and payoff of tax exempt loans. Total net interest income has been adjusted to a tax-equivalent basis using an incremental rate of 21% in 2018 and 20% in 2017.

The increase in our net interest margin came from higher earning asset yields in 2018. Fully tax equivalent net interest income increased from 2017 to 2018 by \$954,000 or 3.3% to \$29,574,000. This occurred because the average of average earning assets increased by 0.3%. The Corporation's net interest margin was under pressure in 2018 as short-term interest rates started to rise since the Corporation continues to be liability sensitive. To offset the increase in liabilities, including deposits, repricing than earning assets (loans and investments). To net

impact of a decreasing net interest margin, the Corporation will continue to focus on attracting deposits such as checking, savings and money market accounts thereby reducing its dependence on certificates of deposit and short-term borrowings.

Throughout 2018, the Federal Reserve increased the federal-funds rate by 1.00%, making the rate between 2.25% and 2.50%, which has a negative impact to the Bank's net interest margin. Short-term rates and costs have increased in a similar fashion. However, there has been little to no change to deposit rates. Asset yields have increased across the curve. The Bank will continue to monitor short-term rates throughout 2018 as well as the slope and position of the yield curve. A steady and continued path of rising rates could have an initial negative effect on net interest margin, based on our asset/liability management strategy. However, indications are that higher interest rates, accompanied by a positively sloped yield curve, could help to increase our net interest margin in the long-term.

Table 3 sets forth changes in interest income and interest expense for the periods indicated for interest earning assets and interest bearing liabilities. Information is provided on changes attributable to (i) changes in volume (changes in average volume multiplied by prior rate); (ii) changes in rate (changes in average rate multiplied by prior average volume); and, (iii) changes in rate and volume (changes in average volume multiplied by change in average rate).

In 2018, the increase in net interest income on a fully tax equivalent basis of \$954,000 resulted from an increase in volume of \$643,000 and an increase of \$311,000 due to changes in rate.

Table 3 — Rate/Volume Analysis

(Dollars in thousands)	2018 COMPARED TO 2017		
	VOLUME	RATE	NET
Interest Income:			
Loans, Net	\$ 2,104	\$ 1,120	\$ 3,224
Taxable Investment Securities	(585)	865	280
Tax-Exempt Investment Securities	(832)	198	(634)
Restricted Investment in Bank Stocks	33	121	154
Other	2		2
Total Interest Income	\$ 722	\$ 2,304	\$ 3,026
Interest Expense			
Savings, NOW and Money Markets	\$ (92)	\$ 473	\$ 381
Time Deposits	145	434	579
Securities Sold U/A to Repurchase	(26)	24	(2)
Short-Term Borrowings	364	1,071	1,435
Long-Term Borrowings	(312)	(9)	(321)
Total Interest Expense	79	1,993	2,072
Net Interest Income	\$ 643	\$ 311	\$ 954

The change in interest due to both volume and yield/rate has been allocated to change due to volume due to yield/rate in proportion to the absolute value of the change in each. Balances on non-accrual loans are included for computational purposes. Interest income on non-accrual loans is not included.

PROVISION FOR LOAN LOSSES

For the year ended December 31, 2018, the provision for loan losses was \$200,000 as compared to \$942,000 in 2017. The decrease in the provision for loan losses in 2018 as compared to 2017 resulted from the analysis of the current loan portfolio, including historic losses, past-due trends, economic conditions and other relevant factors. Net charge-offs by the Corporation for the fiscal years ended December 31, 2018, 2017 and 2016 were \$942,000 and \$137,000, respectively. See Allowance for Loan Losses on page 34 for further discussion.

Gross charge-offs amounted to \$1,039,000 at December 31, 2018, as compared to \$333,000 at December 31, 2017. The increased level of charge-offs for the year ended December 31, 2018 was mainly due to gross charge-offs totaling \$548,000 on a non-accrual Commercial Real Estate participation loan to a special purpose vehicle holding company. A charge-off in the amount of \$342,000 was completed during the second quarter of 2018 to charge the loan balance down to the net realizable value of collateral less costs to sell, as the un-

the collateral was determined to be insufficient to cover the loan balance. An additional charge-off of \$206,000 was completed during the fourth quarter of 2018 as a result of a repurchase of the non-recourse participants' portions of the loan. The charge-off was completed to reduce the Bank's post-repurchase balance down to the net realizable value of collateral less costs to sell, as the underlying value of the collateral was deemed to be insufficient to cover the balance of the loan. The large charge-offs contributed to the total balance of net charge-offs in 2018 but was not indicative of a significant change in asset quality of the loan portfolio. See Table 10 – Analysis of Allowance for Loan Losses for further details.

The allowance for loan losses as a percentage of average loans outstanding was 1.15% as of December 31, 2018 and 1.40% as of December 31, 2017.

On a quarterly basis, management performs, and the Corporation's Audit Committee and the Board of Directors review a detailed analysis of the adequacy of the allowance for loan losses. This analysis includes a review of credit risk concentration, delinquency trends, past loss experience, current economic conditions, and the composition of the loan portfolio, classified loans and other relevant factors.

The Corporation will continue to monitor its allowance for loan losses and make future adjustments to the allowance through the provision for loan losses as conditions warrant. Although the Corporation believes the allowance for loan losses is adequate to provide for losses inherent in the loan portfolio, there can be no assurance that future losses will not exceed the estimated amounts or that additional provisions will be required in the future.

The Corporation is subject to periodic regulatory examination by the Pennsylvania Department of Banking and Finance, the Pennsylvania Department of Securities and the FDIC. As part of the examination, the regulators will assess the adequacy of the allowance for loan losses and may include factors not considered by the Corporation. In the event a regulatory examination results in a conclusion that the Corporation's allowance for loan losses is inadequate, the Corporation may be required to increase its provision for loan losses.

NON-INTEREST INCOME

Non-interest income is derived primarily from service charges and fees, ATM and debit card income, department revenue, income on bank owned life insurance, gains on sales of mortgage loans and miscellaneous income. In addition, net securities gains and losses also impact total non-interest income. Table 4 provides the yearly non-interest income by category, along with the amount, dollar changes, and percentage change.

Non-interest income through December 31, 2018 was \$5,562,000, a decrease of 9.9%, or \$609,000, from 2017. The decrease was due primarily to a decrease in net securities gains. Table 4 provides the major components of non-interest income and each respective change comparing the last two years.

During 2018, net securities gains decreased \$1,003,000 to a net loss of \$65,000. The Bank has taken a conservative approach to securities losses in the portfolio in 2018 in an effort to increase interest income through partial reinvestment in the investment portfolio and to fund growth in the loan portfolio.

Gains on sales of mortgage loans provided income of \$188,000 in 2018 as compared to \$316,000 in 2017. The decrease in gains on sales of mortgage loans in 2018 was due to a decrease in loans originated with the intent to sell and volume of loans sold. In 2018, the Bank originated \$23,918,000 in residential mortgage loans, of which \$8,926,000 were originated with the intent to sell. This compared unfavorably to 2017 when the Bank originated \$20,843,000 in residential mortgage loans, of which \$11,906,000 were originated with the intent to sell. The Corporation continues to service the majority of mortgages which are sold. This servicing income provides an additional source of non-interest income on an ongoing basis.

Service charges and fees increased by \$256,000 or 14.2% in 2018 as compared to 2017, due to increases in certain deposit account fees and transaction fees implemented in 2018. In addition, ATM and debit card income increased \$171,000 or 12.2%, due to increased transaction volume mainly due to the Bank's KeyBank incentives.

Other income, consisting primarily of safe deposit box rentals, income from the sale of non-dep products, and miscellaneous fees, increased \$59,000, or 29.2% in 2018 as compared to 2017.

Table 4 — Non-Interest Income

(Dollars in thousands)	2018/2017			2017
	2018	Amount	%	
Trust department	\$943	\$63	7.2	\$880
Service charges and fees	2,059	256	14.2	1,803
Bank owned life insurance income	609	(27)	(4.2)	636
ATM and debit card income	1,567	171	12.2	1,396
Gains on sales of mortgage loans	188	(128)	(40.5)	316
Other	261	59	29.2	202
Subtotal	5,627	394	7.5	5,233
Net securities (losses) gains	(65)	(1,003)	(106.9)	938
Total	\$5,562	\$(609)	(9.9)	\$6,171

NON-INTEREST EXPENSE

Total non-interest expense amounted to \$22,645,000, an increase of \$1,124,000, or 5.2% in 2018 as compared to 2017. Expenses associated with employees (salaries and employee benefits) continue to be the largest non-interest expense. Salaries and employee benefits amounted to \$11,770,000 or 52.0% of total non-interest expense in 2018 as compared to \$11,170,000 or 51.9% in 2017. Salaries and employee benefits increased \$600,000, or 5.4% in 2018 as compared to 2017. The increase in 2018 was primarily due to the addition of new sales positions in the commercial and mortgage lending areas, additional staff, normal merit increases and an increase in employee profit sharing contributions. The Corporation experienced a 5.8% increase in medical insurance for its employees in 2018 as compared to 2017. The number of full time equivalent employees was 195 as of December 31, 2018 and 191 as of December 31, 2017.

Net occupancy expense decreased \$36,000, or 2.0% in 2018 as compared to 2017. Net furniture and equipment expense decreased \$21,000, or 1.3% in 2018 compared to 2017. Net computer expense increased \$21,000, or 1.3% in 2018 compared to 2017.

Professional services increased \$185,000, or 21.4% in 2018 as compared to 2017. The increase was primarily the result of additional accounting fees for 2017 out of scope audit work and additional engagement fees for 2018 related to the S-3 consent for the Bank's dividend reinvestment plan and 2017 state taxes. There were also higher legal fees related to income generation consulting, higher legal fees relating to the resignation of an executive officer of the Bank and additional legal expenses associated with the dividend reinvestment plan rescission and the form S-3 filing.

Pennsylvania shares tax expense increased \$38,000, or 5.1% in 2018 as compared to 2017. FDI expense decreased \$10,000, or 3.1% in 2018 as compared to 2017. FDIC insurance expense varied in 2018 due to changes in net asset size, risk ratings, and FDIC derived assessment rates.

ATM and debit card fees expense increased \$109,000, or 15.6% in 2018 as compared to 2017. The increase in 2018 was due to higher electronic funds transfer fees caused by increased client usage mainly due to the implementation of Keystone Rewards incentives. Data processing fees increased \$40,000, or 4.0% in 2018 as compared to 2017. The increase in 2018 was primarily due to pricing increases and new products from our main third party processor.

Foreclosed assets held for resale expense amounted to \$148,000 in 2018 as compared to \$135,000 in 2017. The Corporation incurred costs associated with the maintenance and sales of twelve foreclosed properties in 2018 and thirteen foreclosed properties in 2017.

Advertising expense decreased \$23,000, or 4.3% in 2018 as compared to 2017. The decrease in primarily due to decreased newspaper advertising costs.

Other non-interest expense increased \$187,000, or 6.9% in 2018 as compared to 2017. The increase due to an increase in amortization costs on one of the Corporation's low income housing investments in 2018.

The overall level of non-interest expense remains low, relative to the Bank's peers (community banks with less than \$1 billion to \$1 billion in assets). In fact, the Bank's total non-interest expense was 2.25% of average assets in 2018 and 2.15% in 2017. The Bank's non-interest expense as a percentage of average assets places the Bank among the lowest cost leaders in its peer financial institution categories in controlling non-interest expense.

Total assets increased to \$1,012,000,000 at year-end 2018, an increase of 2.2% from year-end 2017.

Total debt securities decreased \$32,532,000 or 9.3% to \$316,054,000 as of December 31, 2018.

Net loans increased in 2018 from \$551,910,000 to \$599,647,000, a 8.6% increase. Loan demand was strong in 2018 and the Bank added loans in the commercial real estate category.

The cash surrender value of bank owned life insurance totaled \$22,963,000 at December 31, 2018, an increase of \$609,000 or 2.7% from 2017.

Investments in low-income housing partnerships were \$2,096,000 at year-end 2018, a decrease from \$2,150,000 at year-end 2017. The Bank became a limited partner in a new real estate venture during 2015 with an investment of \$590,000, a second installment of \$1,178,000 in 2016, third and fourth installments of \$168,000 and \$84,000, respectively, and a commitment of an additional capital contribution up to \$1,000,000 over the life of the project. Investing in low-income housing real estate ventures enables the Bank to provide financing credits and satisfy Community Reinvestment Act initiatives.

As of December 31, 2018, total deposits amounted to \$671,553,000, a decrease of 13.7% from \$771,000,000 at year-end 2017. The decrease in 2018 was primarily due to the declining balances of municipal depositors including the withdrawal of approximately 82% of the deposits of the Bank's largest depositor to a non-bank competitor. Commercial deposits, which include demand deposits and interest bearing demand deposits (NOWs), money market accounts, and time deposits of individuals, continue to be the Corporation's most significant source of deposits.

The Corporation continues to maintain and manage its asset growth. The Corporation's strong capital position provides an opportunity to further leverage its asset growth. Borrowings increased in 2018 by \$128,149,000, mainly due to decreased deposit balances and the need to fund growth in the loan portfolio.

Total stockholders' equity increased to \$116,756,000 at December 31, 2018, an increase of \$37

SEGMENT REPORTING

Currently, management measures the performance and allocates the resources of the Corporation segment.

EARNING ASSETS

Earning assets are defined as those assets that produce interest income. By maintaining a healthy rate, i.e., the volume of earning assets as a percentage of total assets, the Corporation maximized its earning asset ratio (average interest earning assets divided by average total assets) equaled 92.5% in 2017, respectively. This indicates that the management of earning assets is a priority and non-earning assets, primarily cash and due from banks, fixed assets and other assets, are maintained at minimal levels. Earning assets are loans and investment securities.

SECURITIES

The Corporation uses securities to not only generate interest and dividend revenue, but also to hedge interest rate risk and to provide liquidity to meet operating cash needs.

The securities portfolio consists of available-for-sale debt securities. No securities were established in 2018. Available-for-sale debt securities decreased \$32,532,000 or 9.3% to \$316,054,000 in 2018. At December 31, 2018, the net unrealized loss, net of the tax effect, on these securities was \$2,581,000 and is included in stockholders' equity as accumulated other comprehensive (loss) income. Table 6 provides the fair value of the Corporation's securities portfolio on the dates indicated. The vast majority of securities are allocated as available-for-sale. This provides the Corporation with increased flexibility should the need or desire to liquidate a security.

The securities portfolio includes, U.S. treasuries, U.S. government corporations and agencies, corporate bonds, obligations, mortgage-backed securities, asset backed securities, and obligations of state and political subdivisions.

subdivisions, both tax-exempt and taxable.

Available-for-sale debt securities may be sold as part of the overall asset and liability management. Realized gains and losses are reflected in the results of operations on the Corporation's Consolidated Statement of Income. As of December 31, 2018, the securities portfolio does not contain any off-balance sheet or trust preferred investments.

Table 6 — Securities

(Dollars in thousands)

	December 31,	
	2018	2017
	Available	Available
	for Sale	for Sale
U.S. Treasury securities	\$5,295	\$
U. S. Government corporations and agencies	83,119	104,093
Other mortgage backed debt securities	4,749	
Obligations of state and political subdivisions	182,278	215,522
Asset backed securities	14,370	
Corporate debt securities	26,243	28,971
Total	\$316,054	\$348,586

The amortized cost and weighted average yield of securities, by contractual maturity, are shown in the table below as of December 31, 2018. Expected maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

Table 7 Securities Maturity Table

(Dollars in thousands)	December 31, 2018					
	Available-For-Sale Debt Securities					
	U.S. Treasury Securities	U.S. Government Corporations & Agencies Obligations ¹	Other Mortgage Backed Debt Securities ¹	Obligations of State & Political Subdivisions ²	Asset Backed Securities	
Within 1 Year:						
Amortized cost	\$2,472	\$	\$	\$ 1,796	\$	
Weighted average yield	2.63 %			3.93 %		
1 - 5 Years:						
Amortized cost	2,835	17,144		34,900		
Weighted average yield	2.21 %	2.03 %		2.81 %		
5 - 10 Years:						
Amortized cost		29,973		53,209	10,040	
Weighted average yield		2.33 %		3.35 %	4.44 %	
After 10 Years:						
Amortized cost		37,889	4,767	92,716	4,277	
Weighted average yield		2.84 %	4.15 %	3.68 %	4.63 %	
Total:						
Amortized cost	\$5,307	\$ 85,006	\$ 4,767	\$ 182,621	\$ 14,322	
Weighted average yield	2.41 %	2.50 %	4.15 %	3.42 %	4.50 %	

¹Mortgage-backed securities are allocated for maturity reporting at their original maturity date.

²Average yields on tax-exempt obligations of state and political subdivisions have been computed on a tax-equivalent basis using a 34% tax rate.

Marketable equity securities consist of common stock investments in other commercial banks and companies. At December 31, 2018 and 2017, the Corporation had \$1,560,000 and \$1,632,000, respectively, of equity securities recorded at fair value, a decrease of \$72,000 or 4.4%. Prior to January 1, 2018, equity securities were stated at fair value with unrealized gains and losses reported as a separate component of accumulated other comprehensive income (AOCI), net of tax. At December 31, 2017, net unrealized gains, net of tax, had been recognized in AOCI. On January 1, 2018, the unrealized gains and losses were reclassified to

AOCI and into retained earnings with subsequent changes in fair value being recognized in net

LOANS

Total loans increased to \$606,392,000 as of December 31, 2018, as compared to a balance of \$559,397,000 as of December 31, 2017. Table 8 provides data relating to the composition of the Corporation's loan portfolio at the dates indicated. Total loans increased \$46,995,000, or 8.4% in 2018 compared to an increase of \$40,000,000, or 7.1% in 2017.

Steady demand for borrowing by businesses accounted for the 8.4% increase in total loans in 2018 compared to the 7.1% increase in total loans in 2017. The Commercial and Industrial portfolio decreased \$92,220,000 as of December 31, 2018, as compared to \$99,337,000 at December 31, 2017. The Commercial and Industrial portfolio (which includes tax-free Commercial and Industrial loans) had new loan originations totaling \$14,841,000 and an increase of \$7,615,000 in utilization of existing Commercial and Industrial lines of credit offset by loan payoffs of \$22,801,000 and regular principal payments of \$14,931,000. The Commercial Real Estate loan portfolio (which includes tax-free Commercial Real Estate loans) increased \$57,506,000 to \$348,476,000 as of December 31, 2018, as compared to \$290,970,000 at December 31, 2017. The increase was mainly the result of \$88,395,000 in new loan originations, offset by \$18,980,000 in loan payoffs in addition to a decrease of \$2,143,000 in utilization of existing Commercial Real Estate loans and regular principal payments and other typical amortization in the loan portfolio. Residential mortgage loans decreased \$3,184,000 to \$159,741,000 as of December 31, 2018, as compared to \$162,925,000 as of December 31, 2017. The decrease was the result of new loan originations totaling \$19,800,000, offset by loan payoffs of \$19,320,000, net loans sold of \$2,286,000 and regular principal payments. Net loans sold in the Residential mortgage portfolio for the year ended December 31, 2018 consisted of total loans sold during the year ended December 31, 2018 of \$8,760,000, offset with loans opened and sold in the same quarter during the year ended December 31, 2018 which amounted to \$6,474,000. The Corporation continues to originate and sell certain residential mortgage loans which conform to secondary market requirements. The Corporation continues to derive income from the servicing of mortgages sold in the secondary market. The Corporation continues to originate loans to creditworthy borrowers despite the continued slow economic conditions.

Management believes that the loan portfolio is well diversified. The total commercial portfolio was \$440,696,000 at December 31, 2018. Of total loans, \$348,476,000 or 57.5% were secured by commercial real estate, primarily lessors of residential buildings and dwellings and lessors of non-residential buildings. Management will continue to monitor these portfolios.

The largest relationship is comprised of various real estate entities with a mutual owner who is a partner in the bank and began real estate investment and development activities in 1989. The relationship had outstanding loan balances and unused commitments of \$14,013,000 at December 31, 2018. The individual companies are a mix of real estate entities which specialize in construction/development projects (which include construction of multi-family residential units, leasing of commercial office space, and rental of multi-tenant residential units. This relationship had \$12,888,000 in term debt and three lines of credit totaling \$1,125,000. The relationship is well secured by first lien mortgages on income producing commercial and residential real estate, plus assignment of rents and leases and collateral pledge of cash accounts and marketable securities.

The second largest relationship consists of an electrical contractor that has serviced eastern and southern Pennsylvania for over forty years, as well as a related real estate holding company. The guarantor is a partner in a separate real estate development company that specializes in the renovation and conversion of residential buildings into commercial office space. The relationship had \$10,868,000 in outstanding loan balances and unused commitments as of December 31, 2018. The debt is comprised of \$4,763,000 in term debt and three lines of credit totaling \$6,105,000. The loans are secured by commercial real estate, the assignment of rents and leases, and business assets.

The third largest relationship is comprised of multiple first and second lien mortgages relating to the financing of the construction and improvements of several existing hotels. The principal and related owners/guarantors have extensive experience in the hotel industry, owning and operating hotels in various states for over twenty-five years. As of December 31, 2018, the relationship had outstanding loan balances and unused commitments of \$9,475,000. The debt is comprised of \$9,475,000 in term debt and three lines of credit totaling \$130,000. The loans are secured by commercial real estate, the assignment of rents and leases, and business assets.

The fourth largest relationship consists of a distributor and marketer of energy products and services including natural gas, propane, butane, and electricity. During 2017, the company undertook to partner with this relationship to finance its capital needs while promoting regional economic development. At December 31, 2018, the relationship had outstanding balances of \$8,550,000 which consisted entirely of unsecured term debt. The debt will be utilized for general corporate needs, including upgrades to the company's utility distribution system which will enhance its ability to continue providing safe and reliable natural gas service.

The fifth largest relationship consists of a real estate development/holding company that was established to construct a multi-tenant medical complex, as well as the medical-related entities that operate the complex. The relationship had outstanding loan balances and unused commitments of \$8,129,000 as of December 31, 2018. The debt is comprised of \$7,379,000 in term debt and three lines of credit totaling \$750,000. The relationship is secured by commercial real estate, as well as business assets and the assignment of certain leases.

All loan relationships in excess of \$1,500,000 are reviewed internally and through an external credit review process on an annual basis. Such review is based upon analysis of current financial statements of the borrower, co-borrowers/guarantors, payment history, and economic conditions.

Overall, the portfolio risk profile as measured by loan grade is considered low risk, as \$584,570,000 of gross loans are graded Pass; \$5,377,000 or 0.9% are graded Special Mention; \$15,572,000 or 2.7% are graded Substandard; and \$0 are graded Doubtful. The rating is intended to represent the best assessment of credit risk available at a given point in time, based upon a review of the borrower's financial statements, current payment history with the Bank, credit history and lender knowledge of the borrower. See Note 4 - Allowance for Loan Losses for risk grading tables.

Overall, non-pass grades increased to \$20,949,000 at December 31, 2018, as compared to \$16,744,000 at December 31, 2017. Commercial and Industrial non-pass grades decreased to \$1,225,000 as of December 31, 2018, compared to \$1,344,000 as of December 31, 2017. Commercial Real Estate non-pass grades increased to \$18,652,000 as of December 31, 2018 as compared to \$13,724,000 as of December 31, 2017. Real Estate and Consumer non-pass grades decreased to \$1,072,000 as of December 31, 2018, as compared to \$1,644,000 as of December 31, 2017.

The \$4,928,000 increase in the Commercial Real Estate non-pass grade portfolio during the year ended December 31, 2018 was mainly the result of activity associated with two large loans, as well as payments and other normal fluctuations in the Commercial Real Estate non-pass grade portfolio ended December 31, 2018. A loan in the amount of \$4,296,000 to a real estate developer special commercial office space was downgraded to Special Mention during the fourth quarter of 2018 due to borrower's decreased ability to service the debt from operating cash flows, which was caused by a large tenant. The balance of an existing Substandard non-accrual participation loan to a student company experienced a net increase of \$858,000 from \$2,318,000 at December 31, 2017 to \$3,176,000 at December 31, 2018. The remaining participants' portions of the loan totaling \$1,406,000 were repurchased during the fourth quarter of 2018, which net against a charge-off in the amount of \$342,000 that was recorded during the second quarter of 2018 to charge the loan balance down to the net realizable value of the collateral less costs to sell, as the underlying value of the collateral was determined to be insufficient to cover the balance of the loan and an additional charge-off in the amount of \$206,000 that was completed during the fourth quarter of 2018 as a result of the repurchase of the remaining participants' portions of the loan. The charge-off was intended to reduce the Bank's post-repurchase loan balance down to the net realizable value of collateral less costs to sell. The underlying value of collateral was deemed to be insufficient to cover the balance of the loan.

The Corporation continues to internally underwrite each of its loans to comply with prescribed policy and approval levels established by its Board of Directors.

The classes of the Corporation's loan portfolio net of unearned discount and net deferred loan fees are summarized in Table 8.

Table 8 — Loans

(Dollars in thousands)	December 31,				
	2018	2017	2016	2015	2014
Commercial and Industrial	\$92,220	\$99,337	\$83,573	\$85,074	\$64,656
Commercial Real Estate	348,476	290,970	263,519	259,018	253,922
Residential Real Estate	159,741	162,925	169,035	166,628	163,553
Consumer	5,955	6,165	6,255	5,890	5,330
Total Loans	\$606,392	\$559,397	\$522,382	\$516,610	\$487,461

The Corporation's maturity and rate sensitivity information related to the loan portfolio is summarized in Table 9.

Table 9 — Loan Maturity and Interest Sensitivity

Loans by Maturity

(Dollars in thousands)	December 31, 2018			Total
	One Year and Less	Through Five Years	After One Year Through Five Years	
Commercial and Industrial	\$14,677	\$ 41,636	\$ 35,907	\$92,220
Commercial Real Estate	32,856	89,610	226,010	348,476
Residential Real Estate	11,530	41,134	107,077	159,741
Consumer	1,710	3,497	748	5,955
Total	\$60,773	\$ 175,877	\$ 369,742	\$606,392

The above data represents the amount of loans receivable at December 31, 2018 which, based on scheduled repayments of principal, are due in the periods indicated.

Loans by Repricing Opportunity

(Dollars in thousands)	December 31, 2018			Total
	One Year and Less	After One Year Through Five Years	After Five Years	
Commercial and Industrial	\$32,105	\$ 46,301	\$ 13,814	\$92,220
Commercial Real Estate	76,082	230,818	41,576	348,476
Residential Real Estate	20,279	36,155	103,307	159,741
Consumer	2,786	3,151	18	5,955
Total	\$131,252	\$ 316,425	\$ 158,715	\$606,392
Loans with a fixed interest rate	\$35,661	\$ 91,189	\$ 129,837	\$256,687
Loans with a variable interest rate	95,591	225,236	28,878	349,705
Total	\$131,252	\$ 316,425	\$ 158,715	\$606,392

The above data represents the amount of loans receivable at December 31, 2018 which are due or repricing in the periods indicated, based on remaining scheduled repayments of principal on fixed rate loans or date of next repricing opportunity for variable rate loans. The fixed and variable principal amounts of loans receivable due or repricing in the periods indicated are also summarized above.

ALLOWANCE FOR LOAN LOSSES

The allowance for loan losses constitutes the amount available to absorb losses within the loan portfolio. As of December 31, 2018, the allowance for loan losses was \$6,745,000 as compared to \$7,487,000 as of December 31, 2017. The allowance for loan losses is established through a provision for loan losses charged against earnings. Loans are charged against the allowance for possible loan losses when management believes that the collectability of the principal is unlikely. The risk characteristics of the loan portfolio are managed through various control processes, including credit evaluations of individual borrowers, periodic reviews of the portfolio, diversification by industry. Risk is further mitigated through the application of lending procedures, the holding of adequate collateral and the establishment of contractual guarantees.

Management performs a quarterly analysis to determine the adequacy of the allowance for loan losses. The methodology in determining adequacy incorporates specific and general allocations together with a risk analysis on various segments of the portfolio according to an internal loan review process. This

results in an allocated allowance. Management maintains its loan review and loan classification consistent with those of its regulatory supervisory authority.

Management considers, based upon its methodology, that the allowance for loan losses is adequate for foreseeable future losses. However, there can be no assurance that the allowance for loan losses will be sufficient to cover significant losses, if any, that might be incurred in the future.

Table 10 contains an analysis of the allowance for loan losses indicating charge-offs and recoveries. In 2018, net charge-offs as a percentage of average loans were 0.16% as compared to 0.03% in 2017. Net charge-offs amounted to \$942,000 in 2018 and \$137,000 in 2017. Net charge-offs were significantly higher in 2018 than in 2017 due to two large charge-offs in the Commercial Real Estate portfolio that were completed during the year ended December 31, 2018. The two large charge-offs totaling \$548,000 were completed in 2018 on a non-accrual Commercial Real Estate participation loan to a student housing holding company. A charge-off in the amount of \$342,000 was completed during the second quarter of 2018 to charge the loan balance to the net realizable value of collateral less costs to sell, as the underlying value of the collateral was deemed to be insufficient to cover the loan balance. An additional charge-off in the amount of \$206,000 was completed during the fourth quarter of 2018 as a result of a repurchase of the remaining participants' portions of the loan. A charge-off was completed to reduce the Bank's post-repurchase loan balance down to the net realizable value of collateral less costs to sell, as the underlying value of collateral was deemed to be insufficient to cover the balance of the loan. These two large charge-offs made up a significant portion of the \$783,000 in net charge-offs completed in the Commercial Real Estate portfolio during the year ended December 31, 2018.

Despite significantly higher net charge-offs in 2018 than in 2017, the allowance for loan losses decreased from \$7,487,000 at December 31, 2017 to \$6,745,000 at December 31, 2018 due to a decrease in the historical loss factors utilized in the calculation of the general component of the allowance as related to Commercial and Industrial and Commercial Real Estate loans. The historical loss percentages for these two portfolios decreased due to decreased charge-offs included in the period used to calculate the historical loss factor for the respective portfolios at 2018 compared to 2017. The decrease in the historical loss factors related to the calculation of the allowance attributable to the Commercial and Industrial and Commercial Real Estate portfolios contributed significantly to the decrease in the allocated allowance for Commercial and Industrial loans from \$949,000 at December 31, 2017 to \$742,000 at December 31, 2018 and the decrease in the allowance for Commercial Real Estate loans from \$4,067,000 at December 31, 2017 to \$3,700,000 at December 31, 2018. The unallocated component of the allowance also decreased from \$704,000 at December 31, 2017 to \$554,000 at December 31, 2018.

For the year ended December 31, 2018, the provision for loan losses was \$200,000 as compared to \$200,000 for the year ended December 31, 2017. The net effect of the provision, charge-offs and recoveries resulted in the year-end allowance for loan losses of \$6,745,000 of which 10.7% was attributed to the Commercial and Industrial component, 24.5% attributed to the Commercial Real Estate component, 24.5% attributed to the Residential Real Estate component (primarily residential mortgages), 1.7% attributed to the Consumer component, and 8.2% being attributed to the Other component (refer to the activity in Note 4 – Loans and Allowance for Loan Losses on page 72.) Management has determined that the provision for loan losses made during 2018 was sufficient to maintain the allowance for loan losses at a level necessary for the probable losses inherent in the loan portfolio as of December 31, 2018.

Table 10 — Analysis of Allowance for Loan Losses

(Dollars in thousands)	Years Ended December 31,			
	2018	2017	2016	2015
Balance at beginning of period	\$7,487	\$7,357	\$6,739	\$6,739
Charge-offs:				
Commercial and Industrial	18		195	200
Commercial Real Estate	783	189	1,200	1,200
Residential Real Estate	181	62	61	200
Consumer	57	82	38	400
	1,039	333	1,494	2,000
Recoveries:				
Commercial and Industrial	31	74	9	200
Commercial Real Estate	60	103		500
Residential Real Estate		9	12	100
Consumer	6	10	8	600
	97	196	29	800
Net charge-offs	942	137	1,465	1,200
Additions charged to operations	200	267	2,083	2,000
Balance at end of period	\$6,745	\$7,487	\$7,357	\$6,739
Ratio of net charge-offs during the period to average loans outstanding during the period	0.16 %	0.03 %	0.28 %	0.28 %
Allowance for loan losses to average loans outstanding during the period	1.15 %	1.40 %	1.42 %	1.42 %

It is the policy of management and the Corporation's Board of Directors to make a provision for loan losses to cover expected and unidentified losses inherent in its loan portfolio. A provision for loan losses is charged to operations upon an evaluation of the potential losses in the loan portfolio. This evaluation takes into account the loan portfolio concentrations, delinquency trends, trends of non-accrual and classified loans, economic conditions, and other relevant factors.

The loan review process, which is conducted quarterly, is an integral part of the Bank's evaluation of its loan portfolio. A detailed quarterly analysis to determine the adequacy of the Corporation's allowance for loan losses is reviewed by the Board of Directors.

With the Bank's manageable level of net charge-offs and the additions to the reserve from the operations, the allowance for loan losses as a percentage of average loans amounted to 1.15% in 2017.

Table 11 sets forth the allocation of the Bank's allowance for loan losses by loan category and the percentage of loans in each category to the total allowance for loan losses at the dates indicated. The portion of the allowance for loan losses allocated to each loan category does not represent the total available for future losses to occur within the loan category, since the total loan loss allowance is a valuation reserve applicable to the entire loan portfolio.

Table 11 — Allocation of Allowance for Loan Losses

(Dollars in thousands)	December 31,							
	2018	%*	2017	%*	2016	%*	2015	%*
Commercial and Industrial	\$724	11.7	\$949	14.0	\$836	11.7	\$725	11.0
Commercial Real Estate	3,700	59.8	4,067	60.0	4,421	62.0	3,983	60.5
Residential Real Estate	1,650	26.6	1,656	24.4	1,777	24.9	1,777	27.0
Consumer	117	1.9	111	1.6	95	1.4	96	1.5
Unallocated	554	N/A	704	N/A	228	N/A	158	N/A
	\$6,745	100.0	\$7,487	100.0	\$7,357	100.0	\$6,739	100.0

*Percentage of allocation in each category to total allocations in the Allowance for Loan Losses, excluding unallocated.

NON-PERFORMING ASSETS

Table 12 details the Corporation's non-performing assets and impaired loans as of the dates indicated. A loan is classified as non-accrual and the accrual of interest on such a loan is discontinued when payment of principal or interest has become 90 days past due or management has serious doubts about the collectability of principal or interest, even though the loan currently is performing. A loan may be returned to accrual status if it is in the process of collection and is either guaranteed or well secured. When a loan is on non-accrual status, unpaid interest credited to income in the current year is reversed and unpaid interest accrued in prior years is charged against current period income. A modification of a loan constitutes a troubled debt restructuring ("TDR") when a borrower is experiencing financial difficulty and the modification represents a concession that the Corporation would not otherwise consider. Modifications to loans classified as troubled debt restructurings generally include reductions in contractual interest rates, principal deferments and extensions of maturity. In unusual circumstances, there may be instances of loan principal forgiveness. Foreclosed assets held for resale include real estate property acquired through foreclosure, or considered to be an in-substance foreclosure.

Total non-performing assets amounted to \$5,287,000 as of December 31, 2018, as compared to \$4,850,000 as of December 31, 2017. The economy, in particular, high unemployment/labor underutilization rates, depressed commodity markets, unsettled fuel prices and energy costs, and the continued slowness in the housing industry in certain geographic areas had a direct effect on the Corporation's non-performing assets. The Corporation is closely monitoring its Commercial Real Estate portfolio because of the current economic environment. In particular, v

rising, while property values in some markets have fallen. Non-accrual loans totaled \$3,896,000 as of December 31, 2018 as compared to \$5,090,000 as of December 31, 2017. The significant decrease in non-accrual loans as of December 31, 2018 as compared to December 31, 2017 is attributable to various fluctuations in the non-accrual portfolio during the year ended December 31, 2018. Large decreases to the non-accrual portfolio during the year ended December 31, 2018 consisted of six loans to a plastic processing company focused on non-ferrous metal recycling and a related guarantor that carried a combined balance of \$1,519,000 at December 31, 2017 which were returned to accrual status during the fourth quarter of 2018 and a residential mortgage that carried a balance of \$340,000 at December 31, 2017 which was returned to accrual status during third quarter of 2018. Other decreases were net against an increase of \$858,000 on a non-accrual participation loan to a student loan servicer holding company, which resulted from a repurchase of the remaining participants' portions of the loan for \$1,406,000 during the fourth quarter of 2018, that was net against charge-offs totaling \$548,000 during the fourth quarter of 2018, completed during the year ended December 31, 2018. Foreclosed assets held for resale increased to \$1,071,000 as of December 31, 2018 from \$1,071,000 as of December 31, 2017. Loans past-due 90 days or more and still accruing interest amounted to \$228,000 as of December 31, 2018 as compared to \$70,000 as of December 31, 2017. At December 31, 2018, loans past-due 90 days or more and still accruing interest consisted of two Commercial Real Estate loans and one Residential Real Estate loan which were all well secured and in the process of collection as of December 31, 2018.

Non-performing assets to total loans was 0.87% as of December 31, 2018 compared to 1.11% as of December 31, 2017. Non-performing assets to total assets was 0.52% as of December 31, 2018 compared to 0.61% as of December 31, 2017. The allowance for loan losses to total non-performing assets was 127.58% as of December 31, 2018 as compared to 120.16% as of December 31, 2017. Additional detail can be found in Table 1: Non-Performing Assets and Impaired Loans and the Loans Receivable on Non-Accrual Status to Total Loans and Allowance for Loan Losses. Asset quality is a priority and the Corporation retains a risk review officer to closely track and monitor overall loan quality, along with a full-time workout manager to manage collection and liquidation efforts.

Potential problem loans are defined as performing substandard loans which are not deemed to be impaired. These loans have characteristics that cause management to have doubts regarding the ability of the borrower to perform under present loan repayment terms and which may result in reporting these loans as nonperforming loans in the future. Potential problem loans amounted to \$6,100,000 at December 31, 2018 and \$6,100,000 at December 31, 2017.

Impaired loans were \$17,593,000 at December 31, 2018 and \$13,926,000 at December 31, 2017. The largest impaired loan relationship at December 31, 2018 consisted of one performing purchased participation in a commercial real estate developer specializing in commercial office space, which was secured by commercial real estate. The loan was downgraded to Special Mention and modified as a TDR during the fourth quarter of 2017 due to the borrower's decreased ability to service the debt from operating cash flows, which was caused by the loss of a large tenant. The maturity date of the loan was extended upon recommendation by the lead bank to give the borrower additional time to attract a replacement tenant and/or pursue a refinancing of the debt with the lender. The Corporation's share of the loan at December 31, 2018 was \$4,296,000. The discounted cash flow evaluation at December 31, 2018 resulted in no specific allocation of the Bank's share of the participation. The second largest impaired loan relationship at December 31, 2018 consisted of a non-performing participation in a student housing holding company which was secured by commercial real estate. The Corporation's share of the loan at December 31, 2018 was \$3,176,000. The loan was downgraded to Substandard and placed on non-accrual status during the third quarter of 2015 due to the borrower's inability to reach a breakeven point in income, related to the borrower's failure to meet projected occupancy rates. One participant's share of \$1,350,000 was repurchased during the third quarter of 2017 and two remaining participants' shares of \$1,406,000 were repurchased during the fourth quarter of 2018. The collateral evaluation of the Corporation's participation at December 31, 2018 carried a value of \$3,220,000 after considering estimated appraisal adjustments and costs to sell of 15% and considering the total participation outstanding note balance. There was no specific allocation. As of December 31, 2018, \$1,904,000 had been charged off in relation to this loan. The third largest impaired loan relationship at December 31, 2018 consisted of one performing loan participation in a student housing holding company in the amount of \$3,053,000, which was secured by commercial real estate. The loan was downgraded to substandard status and modified as a TDR during the first quarter of 2015 due to the borrower's failure to achieve stabilization and meet projected occupancy rates that was attributed to the economic decline in students' disposable income and an increase in enrollment in online courses. The loan experienced a secondary modification during the third quarter of 2016 to extend the repayment term and reduce the interest rate. The discounted cash flow evaluation at December 31, 2018 resulted in no specific allocation. As of December 31, 2018, \$943,000 had been charged off in relation to this loan.

The Bank estimates impairment based on its analysis of the cash flows or collateral estimated at fair value less cost to sell. For collateral dependent loans, the estimated appraisal adjustments and cost to sell are determined based on the market area in which the real estate securing the loan is located, among other factors, and therefore, can differ from one loan to another. Of the \$17,593,000 in impaired loans at December 31, 2018, none were located outside the Corporation's primary market area.

The outstanding recorded investment of loans categorized as TDRs was \$13,777,000 as of December 31, 2018 compared to \$9,109,000 as of December 31, 2017. The increase in TDRs at December 31, 2018 compared to December 31, 2017 is mainly attributable to a loan in the amount of \$4,296,000 to a real estate company specializing in commercial office space that was modified as a TDR during the fourth quarter of 2018 prior to the maturity date of the loan. Of the forty-two restructured loans at December 31, 2018, nine loans are in the Commercial and Industrial portfolio, thirty-one loans are classified in the Commercial Real Estate portfolio, and two loans are classified in the Residential Real Estate portfolio. Troubled debt restructurings at December 31, 2018 consisted of eighteen term modifications beyond the original stated term, fifteen rate modifications, and eighteen payment modifications. At December 31, 2018, there was also one Commercial Real Estate restructuring that experienced all three types of modification – payment, rate, and term. TDRs are evaluated for impairment disclosures, and if necessary, a specific allocation is established. As of December 31, 2018 and 2017, there were \$1,000 and \$2,000, respectively, in specific allocations attributable to TDRs. There were no unused commitments on TDRs at December 31, 2018 and 2017.

At December 31, 2018, nine Commercial Real Estate loans classified as TDRs with a combined recorded investment of \$499,000 and one Commercial and Industrial loan classified as a TDR with a recorded investment of \$6,000 were not in compliance with the terms of their restructure, compared to December 31, 2017 when ten Commercial Real Estate loans classified as TDRs with a combined recorded investment of \$340,000 and one Residential Real Estate loan classified as a TDR with a recorded investment of \$60,000 were not in compliance with the terms of their restructure.

During the year ended December 31, 2018, five Commercial Real Estate loans totaling \$163,000 were modified as TDRs within the twelve months preceding December 31, 2018 had experienced payment defaults compared to the year ended December 31, 2017 when no loans that were modified as TDRs within the twelve months preceding December 31, 2017 had experienced payment defaults.

The Corporation's non-accrual loan valuation procedure for any loans greater than \$250,000 requires valuations to be obtained and reviewed annually at year end. A quarterly collateral evaluation is performed for loans greater than \$250,000 and include a site visit, property pictures and discussions with realtors and other similar business professionals to ascertain current values.

For non-accrual loans less than \$250,000 upon classification and typically at year end, the Corporation completes a Certificate of Inspection, which includes the results of an onsite inspection, insured appraisals, assessed values, recent sales comparisons and a review of the previous evaluations.

Improving loan quality is a priority. The Corporation actively works with borrowers to resolve credit issues and will continue its close monitoring efforts in 2018. Excluding the assets disclosed in Table 12, Non-Performing Assets and Impaired Loans and the Troubled Debt Restructurings section in Note 5, Allowance for Loan Losses, management is not aware of any information about borrowers' possible credit problems which cause serious doubt as to their ability to comply with present loan repayment terms.

Should the economic climate no longer continue to be stable or deteriorate further, borrowers may experience financial difficulty, and the level of impaired loans and non-performing assets, charge-offs and delinquencies may increase and possibly require additional increases in the Corporation's allowance for loan losses.

In addition, regulatory authorities, as an integral part of their examinations, periodically review the Corporation's allowance for possible loan losses. They may require additions to allowances based upon their judgments about the Corporation's assets available to them at the time of examination.

A concentration of credit exists when the total amount of loans to borrowers, who are engaged in similar business activities that are similarly impacted by economic or other conditions, exceed 10% of total loans. As of December 31, 2018 and 2017 management is of the opinion that there were no loan concentrations exceeding 10% of total loans.

Table 12 — Non-Performing Assets and Impaired Loans

(Dollars in thousands)	December 31,	
	2018	2017
Non-performing assets		

Non-accrual loans	\$3,896	\$5,090		
Foreclosed assets held for resale	1,163	1,071		
Loans past-due 90 days or more and still accruing interest	228	70		
Total non-performing assets	\$5,287	\$6,231		
Impaired loans				
Non-accrual loans	\$3,896	\$5,090		
Accruing TDRs	13,697	8,836		
Total impaired loans	17,593	13,926		
Allocated allowance for loan losses	(1)	(327)		
Net investment in impaired loans	\$17,592	\$13,599		
Impaired loans with a valuation allowance	\$83	\$2,646		
Impaired loans without a valuation allowance	17,510	11,280		
Total impaired loans	\$17,593	\$13,926		
Allocated valuation allowance as a percent of impaired loans	0.01 %	2.35 %		
Impaired loans to total loans	2.90 %	2.49 %		
Non-performing assets to total loans	0.87 %	1.11 %		
Non-performing assets to total assets	0.52 %	0.63 %		
Allowance for loan losses to impaired loans	38.34 %	53.76 %		
Allowance for loan losses to total non-performing assets	127.58%	120.16%		

Real estate mortgages comprise 83.8% of the loan portfolio as of December 31, 2018, as compared to 83.8% of December 31, 2017. Real estate mortgages consist of both residential and commercial real estate. The real estate loan portfolio is well diversified in terms of borrowers, collateral, interest rates, and terms. The residential real estate loan portfolio is largely comprised of fixed rate mortgages. The real estate loans are concentrated primarily in the Corporation's market area and are subject to risks associated with changes in the economy. The commercial real estate loans typically reprice approximately every three to five years and are concentrated in the Corporation's market area. The Corporation's loss exposure on its impaired loans may be mitigated by collateral positions on these loans. The allocated allowance for loan losses associated with impaired loans is generally computed based upon the related collateral value of the loans. The collateral values are determined by recent appraisals, but are generally discounted by management based on historical trends, dispositions, changes in market conditions since the last valuation and management's expertise regarding the borrower and the borrower's business.

DEPOSITS AND OTHER BORROWED FUNDS

Consumer and commercial retail deposits are attracted primarily by the Bank's eighteen full service branches, one loan production office, and through its internet banking presence. The Bank offers a wide selection of deposit products and continually evaluates its interest rates and fees on deposit products. The Bank regularly reviews competing financial institutions' interest rates, especially when establishing interest rates on certificates of deposit.

Deposits decreased by \$106,593,000, or 13.7% for the year ending December 31, 2018 as compared to December 31, 2017. The decrease in deposits in 2018 can be attributed to the declining balances of interest rate sensitive municipal depositors and the migration of approximately 82% of the Bank's largest depositors to a non-bank competitor.

The following schedule reflects the remaining maturities of time deposits and other time open deposits of \$100,000 or more at December 31, 2018.

(Dollars in thousands)	Time Deposits >\$100,000	Other Time Open Deposits >\$100,000
Less than or equal to 3 months	\$ 7,186	\$
Over 3 months through 6 months	10,924	
Over 6 months through 12 months	25,719	855
Over 12 months	38,217	
	\$ 82,046	\$ 855

Total borrowings were \$219,445,000 as of December 31, 2018, compared to \$91,296,000 on December 31, 2017. During 2018, long-term borrowings decreased from \$65,000,000 to \$45,000,000. The decrease in long-term borrowings in 2018 primarily resulted from the maturity of six individual term notes.

Short-term debt increased from \$26,296,000 in 2017 to \$174,445,000 as of December 31, 2018, due to increased deposit balances. Short-term borrowings are comprised of federal funds purchased, securities sold under agreements to repurchase, Federal Discount Window and short-term borrowings from FHLB. Short-term borrowings from FHLB are commonly used to offset seasonal fluctuations in deposits.

In connection with FHLB borrowings, Federal Discount Window, and securities sold under agreements to repurchase, the Corporation maintains certain eligible assets as collateral.

The following table shows information about the Corporation's short-term borrowings as of December 31, 2018 and 2017.

Table 13 Short-Term Borrowings

(Dollars in thousands)	2018		Maximum	
	Month End Balance	Average Balance	Month End Balance	Average Rate
Federal funds purchased	\$	\$	\$	2.19 %
Securities sold under agreements to repurchase	12,957	15,481	19,225	0.56 %
Federal Discount Window				2.19 %
Federal Home Loan Bank	161,488	96,120	161,487	2.28 %
	\$174,445	\$111,601	\$180,712	2.04 %

(Dollars in thousands)	2017		Maximum	
	Month End	Average	Month End	Average
	Balance	Balance	Balance	Rate
Federal funds purchased	\$	\$	\$	1.82 %
Securities sold under agreements to repurchase	22,844	21,872	23,452	0.41 %
Federal Discount Window		10		1.71 %
Federal Home Loan Bank	3,452	64,830	115,445	1.16 %
	\$26,296	\$86,712	\$ 138,897	0.97 %

CAPITAL STRENGTH

Normal increases in capital are generated by net income, less cash dividends paid out. Also, the gains or losses on investment securities available-for-sale, net of taxes, referred to as accumulated comprehensive (loss) income, may increase or decrease total equity capital. The total net increase was \$37,000 in 2018 after an increase of \$7,034,000 in 2017. The increase in equity capital in 2018 was due to the retention of \$3,017,000 in earnings and the issuance of new shares through the Corporation's Dividend Reinvestment Program ("DRIP") amounting to \$1,153,000. Accumulated other comprehensive income was \$4,133,000 in 2018 as a result of market fluctuations in the investment portfolio.

The Corporation had 231,612 shares of common stock as of December 31, 2018 and December 31, 2017. The cost of \$5,709,000, as treasury stock, authorized and issued but not outstanding.

Return on average equity ("ROE") is computed by dividing net income by average stockholders' equity. The ROE was 8.05% for 2018 and 7.54% for 2017. Refer to Performance Ratios on page 22 — Selected Financial Ratios for a more expanded listing of the ROE.

Adequate capitalization of banks and bank holding companies is required and monitored by regulatory authorities. Table 14 reflects risk-based capital ratios and the leverage ratio for the Bank. The Bank's leverage ratio was 9.01% at December 31, 2018 and 8.84% at December 31, 2017.

The Bank has consistently maintained regulatory capital ratios at or above the "well capitalized" level. To be categorized as "well capitalized", the Bank must maintain minimum tier 1 risk-based capital, common equity tier 1 risk based capital, total risk-based capital and tier 1 leverage ratios of 8.0%, 6.5%, 10.0% and 5.0%, respectively. For additional information on capital ratios, see Note 13 — Regulatory Matters. The

capital calculation assigns various levels of risk to different categories of bank assets, requiring capital for assets with more risk. Also measured in the risk-based capital ratio is credit risk exposure with off-balance sheet contracts and commitments.

Table 14 — Capital Ratios

At December 31, 2018 the Bank met the definition of a “well-capitalized” institution under the framework for prompt corrective action and the minimum capital requirements under Basel III. The following table presents the Bank’s capital ratios as of December 31, 2018 and December 31, 2017:

	December 31, 2018		December 31, 2017	
Tier 1 leverage ratio (to average assets)	9.01	%	8.84	%
Common Equity Tier 1 capital ratio (to risk-weighted assets)	12.88	%	13.06	%
Tier 1 risk-based capital ratio (to risk-weighted assets)	12.88	%	13.06	%
Total risk-based capital ratio	13.87	%	14.21	%

Under the final capital rules that became effective on January 1, 2015, there was a requirement to maintain a common equity tier 1 capital conservation buffer of 2.5% of risk-weighted assets which is in addition to the minimum risk-based capital standards in the rule. Institutions that do not maintain this required buffer will become subject to progressively more stringent limitations on the percentage of earnings that can be paid out in dividends or used for stock repurchases and on the payment of discretionary bonuses to senior management. The capital buffer requirement is being phased in over three years beginning in 2016. The 2016 buffer requirement effectively raises the minimum required common equity tier 1 capital ratio to 8.5%, and the total capital ratio to 10.5% on a fully phased-in basis on January 1, 2017. Management believes that, as of December 31, 2018, the Corporation would meet all capital adequacy requirements under the Basel III Capital Rules on a fully phased-in basis as if all such requirements were currently in effect.

The Corporation's capital ratios are not materially different than those of the Bank.

LIQUIDITY MANAGEMENT

The Corporation's objective is to maintain adequate liquidity to meet funding needs at a reasonable cost, provide contingency plans to meet unanticipated funding needs or a loss of funding sources, which may include interest rate risk. Adequate liquidity is needed to provide the funding requirements of depositors, support loan growth, and other operational needs.

Sources of liquidity are as follows:

- Growth in the core deposit base;
- Proceeds from sales or maturities of investment securities;
- Payments received on loans and mortgage-backed securities;
- Overnight correspondent bank borrowings on various credit lines;
- Borrowing capacity available from correspondent banks: FHLB, Atlantic Community Bankers Association and Federal Reserve Bank;
- Securities sold under agreements to repurchase; and
- Brokered CDs.

At December 31, 2018, the Corporation had \$313,923,000 in available borrowing capacity at FHLB (which takes into account FHLB long-term notes and FHLB short-term borrowings); the maximum borrowing capacity at ACBB was \$15,000,000 and the maximum borrowing capacity of the Federal Discount Window was \$4,741,000.

The Corporation enters into "Repurchase Agreements" in which it agrees to sell securities subject to repurchase the same or similar securities. Because the agreement both entitles and obligates the Corporation to repurchase the assets, the Corporation may transfer legal control of the securities while still retaining control. As a result, the repurchase agreements are accounted for as collateralized financing agreements (which are treated as borrowings) and act as an additional source of liquidity. Securities sold under agreements to repurchase were \$12,957,000 at December 31, 2018.

Asset liquidity is provided by investment securities maturing in one year or less, other short-term securities, federal funds sold, and cash and due from banks. The liquidity is augmented by repayment of loans.

flows from mortgage-backed securities. Liability liquidity is accomplished by maintaining a core of deposits and cash equivalents, which are primarily acquired by attracting new deposits and retaining maturing deposits. Also, short-term borrowing is used to meet liquidity needs.

Net cash flows provided by operating activities were \$14,741,000 and \$12,204,000 at December 31, 2018 and 2017, respectively. Net income amounted to \$9,211,000 for the year ended December 31, 2018 and \$10,111,000 for the year ended December 31, 2017. During the years ended December 31, 2018 and 2017, net cash provided by operating activities exceeded net cash utilized for originations of mortgage loans originated for resale by \$22,000 for the year ended December 31, 2018 and net cash utilized for originations of mortgage loans originated for resale exceeded proceeds (including gains) from sales of mortgage loans originated for resale by \$422,000 for the year ended December 31, 2017. Other assets increased \$203,000 during the year ended December 31, 2018 and decreased \$203,000 during the year ended December 31, 2017. Other liabilities decreased \$17,000 and \$313,000 during the years ended December 31, 2018 and 2017, respectively.

Investing activities used \$29,045,000 and \$6,788,000 during the years ended December 31, 2018 and 2017, respectively. Net activity in the available-for-sale securities portfolio (including proceeds from sales and redemptions net against purchases) provided cash of \$23,964,000 and \$30,734,000 during the years ended December 31, 2018 and 2017, respectively. Net cash used to originate loans amounted to \$48,206,000 and \$36,506,000 during the years ended December 31, 2018 and 2017, respectively.

Financing activities provided cash of \$16,515,000 during the year ended December 31, 2018 and \$5,805,000 during the year ended December 31, 2017. Deposits decreased by \$106,593,000 during the year ended December 31, 2018 and increased by \$52,164,000 during the year ended December 31, 2017. Borrowings increased by \$148,149,000 during the year ended December 31, 2018 and decreased by \$148,149,000 during the year ended December 31, 2017. Repayment of long-term borrowings exceeded proceeds from long-term borrowings by \$20,000,000 during the year ended December 31, 2018 and repayment of long-term borrowings amounted to \$10,116,000 for the year ended December 31, 2017. Dividends paid amounted to \$6,194,000 and \$6,145,000 during the years ended December 31, 2018 and 2017, respectively.

Managing liquidity remains an important segment of asset/liability management. The overall liquidity of the Corporation is maintained by an active asset/liability management committee. The Corporation maintains that its core deposit base is stable even in periods of changing interest rates. Liquidity and funds management are governed by policies and measured on a monthly basis. These measurements indicate that liquidity remains stable and exceeds the Corporation's minimum defined levels of adequacy. Other than the continued competitive pressures and volatile interest rates, there are no known demands, commitments or uncertainties that will result in, or that are reasonably likely to result in, liquidity increasing or decreasing in a material way.

Table 15 represents scheduled maturities of the Corporation's contractual obligations by time to maturity as of December 31, 2018.

Table 15 — Contractual Obligations

(Dollars in thousands)	Less than 1 Year	1 - 3 Years	4 -5 Years	Over 5 Years	Total
December 31, 2018					
Time deposits	\$96,639	\$74,672	\$25,506	\$475	\$197,392
Securities sold under agreement to repurchase	12,957	—	—	—	12,957
Short-term borrowings	161,487	—	—	—	161,487
Long-term borrowings	20,000	20,000	3,000	2,000	45,000
Operating lease obligations	123	205	136	2,326	2,790
	\$291,206	\$94,877	\$28,642	\$4,801	\$419,526

Off-Balance Sheet Arrangements

The Corporation is party to financial instruments with off-balance sheet risk in the normal course of business to meet the financing needs of its customers. These financial instruments include commitments to extend credit and, to a lesser extent, standby letters of credit. At December 31, 2018, the Corporation had unfunded commitments to extend credit of \$107,126,000 and outstanding standby letters of credit of \$3,438,000. Because these commitments generally have fixed expiration dates and many will not be drawn upon, the total commitment level does not necessarily represent future cash requirements. For more information, refer to Note 14 — Financial Instruments with Off-Balance Sheet Risk and Concentrations of Credit Risk in the discussion of the nature, business purpose, and importance of the Corporation's off-balance sheet risk.

MARKET RISK

Market risk is the risk of loss arising from adverse changes in the fair value of financial instruments due to changes in interest rates, exchange rates and equity prices. The Corporation's market risk is composed of interest rate risk. The Corporation's interest rate risk results from timing differences in the recognition of assets and liabilities, off-balance sheet instruments, and changes in relationships between rate indices and the exercise of explicit or embedded options.

Increases in the level of interest rates also may adversely affect the fair value of the Corporation's investments and other earning assets. Generally, the fair value of fixed-rate instruments fluctuates inversely with changes in interest rates. As a result, increases in interest rates could result in decreases in the fair value of interest-earning assets, which could adversely affect the Corporation's results of operations if such assets are classified as available-for-sale. For interest-earning assets classified as available-for-sale, the Corporation's stockholders' equity is affected by changes in unrealized gains and losses. For debt securities classified as available-for-sale, changes in the unrealized gains and losses are reflected in the Corporation's stockholders' equity. The Corporation does not own any trading assets.

Asset/Liability Management

The principal objective of asset/liability management is to manage the sensitivity of the net interest income to potential movements in interest rates and to enhance profitability through returns from managed assets and liabilities. The Corporation actively manages the interest rate sensitivity of its assets and liabilities. Table 16 presents an interest sensitivity analysis of assets and liabilities as of December 31, 2018. Sensitivity is measured using duration. Duration is used for measuring interest rate sensitivity. Interest rate risk arises from the mismatches in the durations of assets and liabilities within a given time period, referred to as a rate sensitivity gap. If more assets mature or reprice within the time frame, the Corporation is asset sensitive. This position would contribute positively to net interest income in a rising rate environment. Conversely, if more liabilities mature or reprice within the time frame, the Corporation is liability sensitive. This position would contribute negatively to net interest income in a rising rate environment.

Limitations of interest rate sensitivity gap analysis as illustrated in Table 16 include: a) assets and liabilities which contractually reprice within the same period may not, in fact, reprice at the same time or to the same extent; b) changes in market interest rates do not affect all assets and liabilities to the same extent; and c) interest rate sensitivity gaps reflect the Corporation's position on a single day (December 31, 2018 in the case of the following schedule) while the Corporation continually adjusts its interest sensitivity over the course of the year. The Corporation's cumulative gap at one year indicates the Corporation is liability sensitive.

Table 16 — Interest Rate Sensitivity Analysis

(Dollars in thousands)

	December 31, 2018				Total
	One Year	1 - 5 Years	Beyond 5 Years	Not Rate Sensitive	
Assets	\$ 130,679	\$ 347,862	\$ 448,981	\$ 84,478	\$ 1,012,000
Liabilities/Stockholders' Equity	353,644	169,100	375,805	113,451	1,012,000
Interest Rate Sensitivity Gap	\$(222,965)	\$ 178,762	\$ 73,176	\$(28,973)	
Cumulative Gap	\$(222,965)	\$(44,203)	\$ 28,973		

Earnings at Risk

The Bank's Asset/Liability Committee ("ALCO") is responsible for reviewing the interest rate risk and establishing policies to monitor and limit exposure to interest rate risk. The guidelines established are reviewed by the Corporation's Board of Directors. The Corporation recognizes that more sophisticated methods exist for measuring the interest rate risk in the balance sheet beyond interest rate sensitivity gap analysis. When the Corporation continues to measure its interest rate sensitivity gap, the Corporation utilizes additional methods for interest rate risk in the overall balance sheet. Earnings at risk and economic values at risk are

Earnings simulation modeling addresses earnings at risk and net present value estimation addresses economic value at risk. While each of these interest rate risk measurements has limitations, taken together they provide a reasonably comprehensive view of the magnitude of interest rate risk to the Corporation.

Earnings Simulation Modeling

The Corporation's net income is affected by changes in the level of interest rates. Net income is also affected by changes in the shape of the yield curve. For example, a flattening of the yield curve would result in decreased earnings due to the compression of earning asset yields and increased liability rates, while a steepening would result in increased earnings as earning asset yields widen.

Earnings simulation modeling is the primary mechanism used in assessing the impact of changes in interest rates on net interest income. The model reflects management's assumptions related to asset yields and liabilities, deposit sensitivity, size and composition of the balance sheet. The assumptions are based on what management believes at that time to be the most likely interest rate environment. Earnings at risk is measured in net interest income from a base case scenario under various scenarios of rate shock increases and decreases in the interest rate earnings simulation model.

Table 17 presents an analysis of the changes in net interest income and net present value of the balance sheet resulting from various increases or decreases in the level of interest rates, such as two percentage points (200 basis points) in the level of interest rates. The calculated estimates of change in net interest income and net present value of the balance sheet are compared to current limits approved by ALCO and the Board of Directors. The earnings simulation model projects net interest income would decrease 11.5%, 22.2% and 31.1% in the 100, 200 and 300 basis point increasing rate scenarios presented. In addition, the earnings simulation model projects net interest income would increase 6.8% and 9.4% in the 100 and 200 basis point decreasing rate scenarios presented. All of these forecasts are within the Corporation's one year policy guidelines, aside from the 300 basis point immediate increase scenario at (22.2)% vs. a policy limit of (20.0)% and the 300 basis point immediate increase scenario at (31.1)% vs. a policy limit of (25.0)%.

The analysis and model used to quantify the sensitivity of net interest income becomes less reliable in a decreasing rate scenario given the current unprecedented low interest rate environment with fed funds trading in the 200 – 250 basis point range. Results of the decreasing basis point declining scenario are mitigated by the fact that many of the Corporation's interest-bearing liabilities are at rates below 1% and therefore are not expected to decline 100 or more basis points. However, the Corporation's interest-sensitive assets are able to benefit from rate declines. For the years ended December 31, 2018 and 2017, the cost of interest-bearing liabilities averaged 1.13% and 0.86%, respectively, and the yield on average interest-earning assets, on a fully taxable equivalent basis, averaged 4.11% and 3.79%, respectively.

Net Present Value Estimation

The net present value measures economic value at risk and is used for helping to determine level of risk at a point in time present in the balance sheet that might not be taken into account in the earnings simulation model. The net present value of the balance sheet is defined as the discounted present value of asset cash flows less the discounted present value of liability cash flows. At December 31, 2018, the 100 and 200 basis point immediate decreases in rates are estimated to affect net present value with a decrease of 7.0% and 13.6%, respectively. Additionally, net present value is projected to decrease 1.0%, 6.3%, and 13.6% in the 100, 200 and 300 basis point immediate increase scenarios, respectively. All scenarios presented are within the Corporation's policy limits.

The computation of the effects of hypothetical interest rate changes are based on many assumptions and should not be relied upon solely as being indicative of actual results, since the computations do not take into account actions management could undertake in response to changes in interest rates.

Table 17 — Effect of Change in Interest Rates

	Projected Change	
Effect on Net Interest Income		
1-Year Net Income Simulation Projection		
+300 bp Shock vs. Stable Rate	(31.1)%
+200 bp Shock vs. Stable Rate	(22.2)%
+100 bp Shock vs. Stable Rate	(11.5)%
Flat rate		
100 bp Shock vs. Stable Rate	6.8	%
200 bp Shock vs. Stable Rate	9.4	%
Effect on Net Present Value of Balance Sheet		
Static Net Present Value Change		
+300 bp Shock vs. Stable Rate	(13.6)%
+200 bp Shock vs. Stable Rate	(6.3)%
+100 bp Shock vs. Stable Rate	(1.0)%
Flat rate		
100 bp Shock vs. Stable Rate	(7.0)%
200 bp Shock vs. Stable Rate	(25.7)%

Table 18 shows the quarterly results of operations for the Corporation for the years ended December 31, 2018 and 2017:

Table 18 — Quarterly Results of Operations (Unaudited)

(Dollars in thousands, except per share data)

2018	Three Months Ended			
	March 31	June 30	September 30	December 31
Interest income	\$8,271	\$8,737	\$ 9,169	\$ 9,396
Interest expense	1,781	1,984	2,284	2,571
Net interest income	6,490	6,753	6,885	6,825
Provision for loan losses	50			150
Non-interest income	1,259	1,470	1,502	1,331
Non-interest expense	5,895	5,676	5,607	5,467
Income before income tax expense	1,804	2,547	2,780	2,539
Income tax expense	27	71	184	177
Net income	\$1,777	\$2,476	\$ 2,596	\$ 2,362
Basic and diluted earnings per share	\$0.31	\$0.43	\$ 0.45	\$ 0.41

(Dollars in thousands, except per share data)

2017	Three Months Ended			
	March 31	June 30	September 30	December 31
Interest income	\$7,897	\$8,010	\$ 8,164	\$ 8,197
Interest expense	1,419	1,627	1,787	1,715
Net interest income	6,478	6,383	6,377	6,482
Provision for loan losses	83		84	100
Non-interest income	1,538	1,495	1,713	1,425
Non-interest expense	5,263	5,666	5,681	4,911
Income before income tax expense	2,670	2,212	2,325	2,896
Income tax expense	384	293	269	509
Net income	\$2,286	\$1,919	\$ 2,056	\$ 2,387
Basic and diluted earnings per share	\$0.40	\$0.34	\$ 0.36	\$ 0.42

Critical Accounting Estimates

The Corporation has chosen accounting policies that it believes are appropriate to accurately and consistently report its operating results and financial position, and the Corporation has applied those policies in a consistent manner.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America require that the Corporation make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. These estimates and assumptions are based on management's best estimates and assumptions based on the information available at the time of the financial statements and other factors believed to be reasonable under the circumstances. The Corporation evaluates these estimates and assumptions on an ongoing basis and may retain outside consultants, lawyers and actuaries to assist in the evaluation. These estimates, assumptions and judgments are based on information available as of the end of the reporting period. Changes in consolidated financial statements; accordingly, as this information changes, the consolidated financial statements could reflect different estimates, assumptions and judgments.

The Corporation considers two accounting policies to be critical because they involve the most significant judgments and estimates used in preparation of its consolidated financial statements. The two policies are the determination of other-than-temporary impairment of securities and the determination of the allowance for loan losses.

Other-Than-Temporary Impairment of Securities. Valuations for the investment portfolio are based on quoted market prices, where available. If quoted market prices are not available, investment valuations are based on pricing models, quotes for similar investment securities, and observable yield curves and spreads. In addition to valuation, management must assess whether there are any declines in value below the carrying amount of investments that should be considered other than temporary or otherwise require an adjustment to the carrying amount and recognition of the loss in the Corporation's Consolidated Statements of Income.

Allowance for Loan Losses. The allowance for loan losses represents management's estimate of the amount of losses inherent in the loan portfolio. Determining the amount of the allowance for loan losses is a critical accounting estimate because it requires significant judgment and the use of estimates related to the amount and timing of expected future cash flows on impaired loans, estimated losses on pools of loans based on historical loss experience, and consideration of current economic trends and conditions that may be susceptible to significant change. The loan portfolio also represents the largest asset on the Corporation's Consolidated Balance Sheets.

ITEM 8. FINANCIAL STATEMENTS AND
SUPPLEMENTARY DATA

Report of Independent Registered Public Accounting Firm

Stockholders and Board of Directors

First Keystone Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheet of First Keystone Corporation as of December 31, 2018, and the related consolidated statements of comprehensive income, changes in stockholders' equity, and cash flows, for the year then ended, and the related consolidated financial statements notes (collectively referred to as the "consolidated financial statements"). We also have 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 American Institute of Certified Public Accountants ("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 the results of its operations and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America. 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 internal 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 audit. We are a registered accounting firm registered with the Public Company Accounting Oversight Board (United States).

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 listing requirements of the NYSE.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether 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 audit 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 to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting policies 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, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit 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 reporting in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, 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 risk. Internal 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 2018.

Williamsport, Pennsylvania
March 18, 2019

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders

First Keystone Corporation

Berwick, Pennsylvania

Opinion of the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of First Keystone Corporation and its subsidiaries (the “Corporation”) as of December 31, 2017, the related consolidated statements of income, comprehensive income, changes in stockholders’ equity, and cash flows for the year then ended, and the related notes to the consolidated financial statements (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Corporation at December 31, 2017, and the results of their operations and their cash flows for the year ended December 31, 2017, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Corporation’s management. Our responsibility is to express an opinion on the Corporation’s consolidated financial statements based on our audit. 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 Corporation in accordance with the federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audit 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.

procedures included examining, on a test basis, evidence regarding the amounts and disclosures consolidated financial statements. Our audit also included evaluating the accounting principles and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ BDO USA, LLP

We served as the Corporations auditor from 2014 to 2018.

Philadelphia, Pennsylvania

March 16, 2018

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FIRST KEYSTONE CORPORATION AND SUBSIDIARY**CONSOLIDATED BALANCE SHEETS**

(Dollars in thousands, except share and per share data)

	Decem 2018
ASSETS	
Cash and due from banks	\$9,822
Interest-bearing deposits in other banks	1,128
Total cash and cash equivalents	10,95
Time deposits with other banks	1,482
Available-for-sale debt securities, at fair value	316,0
Marketable equity securities, at fair value	1,560
Restricted investment in bank stocks	8,681
Loans	606,0
Loans held for sale	365
Allowance for loan losses	(6,74
Net loans	599,6
Premises and equipment, net	19,94
Accrued interest receivable	4,041
Cash surrender value of bank owned life insurance	22,96
Investments in low-income housing partnerships	2,096
Goodwill	19,13
Foreclosed assets held for resale	1,163
Deferred income taxes	1,469
Other assets	2,815
TOTAL ASSETS	\$1,012
LIABILITIES	
Deposits:	
Non-interest bearing	\$126,3
Interest bearing	545,1
Total deposits	671,5
Short-term borrowings	174,4
Long-term borrowings	45,00
Accrued interest payable	785
Other liabilities	3,461
TOTAL LIABILITIES	895,2
STOCKHOLDERS' EQUITY	
Preferred stock, par value \$2.00 per share; authorized 1,000,000 shares as of December 31, 2018 and 2017; issued 0 in 2018 and 2017	

Common stock, par value \$2.00 per share; authorized 20,000,000 shares as of December 31, 2018 and 2017; issued 5,996,322 as of December 31, 2018 and 5,950,951 as of December 31, 2017; outstanding 5,764,710 as of December 31, 2018 and 5,719,339 as of December 31, 2017	11,99
Surplus	37,25
Retained earnings	75,79
Accumulated other comprehensive (loss) income	(2,58
Treasury stock, at cost, 231,612 shares in 2018 and 2017	(5,70
TOTAL STOCKHOLDERS' EQUITY	116,7
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$1,012

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

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**CONSOLIDATED STATEMENTS OF INCOME**

	Years Ended December 31,	
(Dollars in thousands, except per share data)	2018	2017
INTEREST INCOME		
Interest and fees on loans	\$25,886	\$22,615
Interest and dividend income on investment securities:		
Taxable	4,585	4,304
Tax-exempt	4,576	4,979
Dividends	47	47
Dividend income on restricted investment in bank stocks	443	289
Interest on interest-bearing deposits in other banks	36	34
Total interest income	35,573	32,268
INTEREST EXPENSE		
Interest on deposits	5,193	4,232
Interest on short-term borrowings	2,277	844
Interest on long-term borrowings	1,150	1,472
Total interest expense	8,620	6,548
Net interest income	26,953	25,720
Provision for loan losses	200	267
Net interest income after provision for loan losses	26,753	25,453
NON-INTEREST INCOME		
Trust department	943	880
Service charges and fees	2,059	1,803
Bank owned life insurance income	609	636
ATM fees and debit card income	1,567	1,396
Gains on sales of mortgage loans	188	316
Net securities (losses) gains	(65)	938
Other	261	202
Total non-interest income	5,562	6,171
NON-INTEREST EXPENSE		
Salaries and employee benefits	11,770	11,170
Occupancy, net	1,741	1,777
Furniture and equipment	598	569
Computer expense	1,017	1,025
Professional services	1,051	866
Pennsylvania shares tax	780	742
FDIC insurance	311	321
ATM and debit card fees	806	697

Data processing fees	1,032	992
Foreclosed assets held for resale	148	135
Advertising	507	530
Other	2,884	2,697
Total non-interest expense	22,645	21,521
Income before income tax expense	9,670	10,103
Income tax expense	459	1,455
NET INCOME	\$9,211	\$8,648
PER SHARE DATA		
Net income per share:		
Basic	\$1.60	\$1.52
Diluted	1.60	1.52
Dividends per share	1.08	1.08

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

FIRST KEYSTONE CORPORATION AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Dollars in thousands)

	Year Ended December 31, 2019	Year Ended December 31, 2018
Net Income	\$5	\$5
Other comprehensive (loss) income:		
Unrealized net holding (losses) gains on debt securities arising during the period, net of income taxes of \$(1,097) and \$2,002, respectively	(1,097)	2,002
Less reclassification adjustment for net gains included in net income, net of income taxes of \$(1) and \$(324), respectively (a) (b)	(1)	(324)
Total other comprehensive (loss) income	(1,108)	1,678
Total Comprehensive Income	\$5	\$5

(a) Gross amounts are included in net securities (losses) gains on the Consolidated Statements of Comprehensive Income, net of income taxes. (b) Income tax amounts are included in income tax expense on the Consolidated Statements of Comprehensive Income.

(b) Income tax amounts are included in income tax expense on the Consolidated Statements of Comprehensive Income.

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

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY****Years Ended December 31, 2018 and 2017***(Dollars in thousands, except share and per share data)*

	Common Stock			Retained	Accumulated Other Comprehensive (Loss) Income	Treasu Stock
	Shares	Amount	Surplus	Earnings		
Balance at January 1, 2017	5,904,563	\$11,809	\$35,047	\$70,004	\$ (1,419)	\$(5,75
Net Income				8,648		
Other comprehensive income, net of taxes					3,245	
Issuance of common stock under dividend reinvestment plan and exercise of employee stock options	46,388	93	1,146			47
Dividends - \$1.08 per share				(6,145)		
Balance at December 31, 2017	5,950,951	11,902	36,193	72,507	1,826	(5,70
Net Income				9,211		
Other comprehensive loss, net of taxes					(4,133)	
Issuance of common stock under dividend reinvestment plan	45,371	91	1,062			
Impact of adoption of accounting standards ¹				274	(274)	
Dividends - \$1.08 per share				(6,194)		
Balance at December 31, 2018	5,996,322	\$11,993	\$37,255	\$75,798	\$ (2,581)	\$(5,70

¹Represents the impact of adopting Accounting Standard Updates (“ASU”) 2018-02 and ASU 2018-01 January 1, 2018. See Note 1 to the consolidated financial statements for more information.

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

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FIRST KEYSTONE CORPORATION AND SUBSIDIARY**CONSOLIDATED STATEMENTS OF CASH FLOWS**

(Dollars in thousands)

	Years Decem 2018
CASH FLOWS FROM OPERATING ACTIVITIES:	
Net income	\$9,21
Adjustments to reconcile net income to net cash provided by operating activities:	
Provision for loan losses	200
Depreciation and amortization	1,05
Net premium amortization on debt securities	3,34
Deferred income tax expense	566
Gains on sales of mortgage loans	(188
Proceeds from sales of mortgage loans originated for resale	8,94
Originations of mortgage loans originated for resale	(8,9
Net securities losses (gains)	65
Net losses (gains) on sales of foreclosed real estate held for resale, including write-downs	162
Decrease (increase) in accrued interest receivable	196
Earnings on investment in bank owned life insurance	(609
Net (gains) losses on disposals of premises and equipment	(10
(Increase) decrease in other assets	(81
Amortization of investment in low-income housing partnerships	530
Increase in accrued interest payable	295
Decrease in other liabilities	(17
NET CASH PROVIDED BY OPERATING ACTIVITIES	14,7
CASH FLOWS FROM INVESTING ACTIVITIES:	
Proceeds from sales of debt securities available-for-sale	44,1
Proceeds from maturities and redemptions of debt securities available-for-sale	22,0
Purchases of debt securities available-for-sale	(42,
Proceeds from maturities and redemptions of investment securities held-to-maturity	—
Net change in restricted investment in bank stocks	(4,6
Net increase in loans	(48,
Purchase of premises and equipment	(440
Purchase of investment in low-income housing partnerships	—
Proceeds from sales of foreclosed assets held for resale	263
NET CASH USED IN INVESTING ACTIVITIES	(29,
CASH FLOWS FROM FINANCING ACTIVITIES:	
Net (decrease) increase in deposits	(100
Net increase (decrease) in short-term borrowings	148

Proceeds from long-term borrowings	3,00
Repayment of long-term borrowings	(23,
Common stock issued	1,15
Proceeds from exercise of stock options	—
Dividends paid	(6,1
NET CASH PROVIDED BY (USED IN) FINANCING ACTIVITIES	16,5
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	2,21
CASH AND CASH EQUIVALENTS, BEGINNING	8,73
CASH AND CASH EQUIVALENTS, ENDING	\$ 10,9
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION	
Interest paid	\$8,32
Income taxes paid	672
SUPPLEMENTAL DISCLOSURE OF NON-CASH ACTIVITIES	
Loans transferred to foreclosed assets held for resale	517
Loans transferred from held for sale portfolio	(611

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

FIRST KEYSTONE CORPORATION AND SUBSIDIARY

Notes to Consolidated Financial Statements

NOTE 1 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accounting policies of First Keystone Corporation and Subsidiary (the “Corporation”) are in accordance with the accounting principles generally accepted in the United States of America (“GAAP”) and conform to the practices within the banking industry. The more significant accounting policies follow:

Principles of Consolidation

The consolidated financial statements include the accounts of First Keystone Corporation and its wholly-owned subsidiary, First Keystone Community Bank (the “Bank”). All significant inter-company balances and transactions have been eliminated in consolidation.

Nature of Operations

The Corporation, headquartered in Berwick, Pennsylvania, provides a full range of banking, financial and investment services through its wholly-owned Bank subsidiary and is subject to competition from other financial institutions in connection with these services. The Bank serves a customer base which includes individuals, businesses, governments, and public and institutional customers primarily located in the Northeast Region of Pennsylvania. The Bank has 18 full service offices, one loan production office, and 20 Automated Teller Machines located in Columbia, Luzerne, Montour, Monroe, and Northampton counties. The Corporation and Bank must also adhere to certain federal and state banking laws and regulations and are subject to periodic regulatory examinations made by various state and federal agencies.

Segment Reporting

The Corporation's subsidiary acts as an independent community financial services provider, and banking and related financial services to individual, business, government, and public and institutional customers. Through its branch and ATM network, the Bank offers a full array of commercial and consumer services, including the taking of time, savings and demand deposits; the making of commercial, residential, and mortgage loans; and the providing of other financial services. The Bank also performs personal, pension and fiduciary services through its Trust Department.

Management does not separately allocate expenses, including the cost of funding loan demand, commercial, retail, trust and mortgage banking operations of the Corporation. As such, discrete information is not available and segment reporting would not be meaningful.

Significant Concentrations of Credit Risk

The majority of the Corporation's activities involve customers located primarily in Columbia, Lancaster, Monroe, Northampton, and Lehigh counties in Pennsylvania. The types of securities in which the Corporation invests are presented in Note 3 – Securities. Credit risk as it relates to investment activities is managed through the monitoring of ratings and geographic concentrations residing in the portfolio and the observance of minimum rating levels in the investment policy. Note 4 – Loans and Allowance for Loan Losses describes the types of lending in which the Corporation engages. The inherent risks associated with lending are mitigated by adhering to conservative underwriting practices and policies, as well as portfolio diversification and thorough monitoring of the loan portfolio. It is management's opinion that the investment and loan portfolios were well balanced at December 31, 2018, to the extent necessary to avoid any significant concentrations of credit risk.

Use of Estimates

The preparation of these consolidated financial statements, in conformity with accounting principles generally accepted in the United States of America, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the end of the reporting periods and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ from those estimates.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY

Notes to Consolidated Financial Statements

Material estimates that are particularly susceptible to significant changes include the determination of other-than-temporary impairment on securities and the determination of the allowance for loan losses.

Subsequent Events

The Corporation has evaluated events and transactions occurring subsequent to the consolidated balance sheet date of December 31, 2018, for items that should potentially be recognized or disclosed in the consolidated financial statements. The evaluation was conducted through the date these consolidated financial statements were issued.

Cash and Cash Equivalents

For purposes of reporting consolidated cash flows, cash and cash equivalents include cash on hand, cash in banks, interest-bearing deposits in other banks, and federal funds sold. The Corporation considers interest-bearing deposits with other banks as a cash equivalent since they are represented by certificates of deposit, which are essentially on a demand basis and mature within one year. Federal funds are also included as a cash equivalent because they are generally purchased and sold for one-day periods.

Time Deposits with Other Banks

Time deposits with other banks consist of fully insured certificates of deposit in other banks with terms ranging between one and five years.

Securities

The Corporation classifies its securities as either “Held-to-Maturity” or “Available-for-Sale” at Securities are accounted for on a trade date basis. Debt securities are classified as Held-to-Maturity Corporation has the ability and positive intent to hold the securities to maturity. Securities classified as Held-to-Maturity are carried at cost adjusted for amortization of premium and accretion of discount.

Debt securities not classified as Held-to-Maturity are included in the Available-for-Sale category and are stated at fair value. The amount of any unrealized gain or loss, net of the effect of deferred income tax, is included in accumulated other comprehensive (loss) income (AOCI) in the Consolidated Balance Sheets and the Consolidated Statements of Changes in Stockholders’ Equity. Management’s decision to sell Available-for-Sale securities is based on changes in economic conditions controlling the sources and applications of funds, term and yield of alternative investments, interest rate risk and the need for liquidity.

The cost of debt securities classified as Held-to-Maturity or Available-for-Sale is adjusted for amortization of premiums and accretion of discounts to expected maturity. Such amortization and accretion, as well as interest and dividends, are included in interest and dividend income on investment securities. Realized gains and losses are included in net investment securities gains and losses. The cost of investment securities sold before maturity is based on the specific identification method.

Beginning January 1, 2018, upon adoption of ASU 2016-01, equity securities with readily determinable fair values are stated at fair value with realized and unrealized gains and losses reported in income. Prior to January 1, 2018, equity securities were classified as available-for-sale and stated at fair value with realized gains and losses reported as a separate component of AOCI, net of tax. Equity securities without readily determinable fair values are recorded at cost less impairment, if any.

Management evaluates securities for other-than-temporary impairment (“OTTI”) at least on a quarterly basis, and more frequently when economic or market conditions warrant such an evaluation. Securities classified as available-for-sale or held-to-maturity are generally evaluated for OTTI under FASB ASC 320, *Investments—Debt and Equity Securities*. In determining OTTI under the FASB ASC 320 model, management considers various factors, including (1) the length of time and the extent to which the fair value has been less than the cost, (2) the financial condition and near-term prospects of the issuer, (3) whether the market decline was affected by macroeconomic conditions, and (4) whether the entity has the intent to sell the debt security or it is more likely than not will be required to sell the debt security before its anticipated recovery. The assessment of whether an other-than-temporary decline exists involves a high degree of subjectivity and judgment and is based on the information available to management at a point in time.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY

Notes to Consolidated Financial Statements

When other-than-temporary impairment occurs on debt securities, the amount of the other-than-temporary impairment recognized in earnings depends on whether an entity intends to sell the security or more likely than not will be required to sell the security before recovery of its amortized cost basis less any current-period credit loss. If an entity intends to sell or more likely than not will be required to sell the security before recovery of its amortized cost basis less any current-period credit loss, the other-than-temporary impairment shall be recognized in earnings equal to the entire difference between the investment's amortized cost basis and its fair value as of the balance sheet date. If an entity does not intend to sell the security and it is not more likely than not that the entity will be required to sell the security before recovery of its amortized cost basis less any current-period credit loss, other-than-temporary impairment shall be separated into the amount representing the credit loss and the amount related to all other factors. The amount of the total other-than-temporary impairment related to the other factors shall be determined based on the present value of cash flows expected to be collected, and the realized loss shall be recognized as impairment charges on securities on the Consolidated Statements of Income. The amount of the other-than-temporary impairment related to the other factors shall be recognized in other comprehensive income, net of applicable taxes. The previous amortized cost basis less the other-than-temporary impairment recognized in earnings becomes the new amortized cost basis of the investment.

The fair market value of the equity securities tends to fluctuate with the overall equity markets and market trends specific to each institution. The equity securities portfolio is reviewed in a similar manner to the debt securities with greater emphasis placed on the length of time the market value has been less than the carrying value and the financial sector outlook. The Corporation also reviews dividend payment history and the severity of non-performing assets and loan loss reserves. The starting point for the equity analysis is the severity of market value decline. The realized loss is recognized as impairment charges on securities on the Consolidated Statements of Income. The previous cost basis less the other-than-temporary impairment recognized in earnings becomes the new cost basis of the investment.

Restricted Investment in Bank Stocks

The Bank owns restricted stock investments in the Federal Home Loan Bank of Pittsburgh ("FHLB-Pittsburgh") and Atlantic Community Bankers Bank ("ACBB"). These investments do not have a readily determinable fair value because their ownership is restricted and they can be sold back only to the FHLB-Pittsburgh or another member institution. Therefore, these investments are carried at cost. At December 31, 2017, the Corporation held \$8,646,000 in stock of FHLB-Pittsburgh and \$35,000 in stock of ACBB. At December 31, 2017, the Corporation held \$4,023,000 in stock of FHLB-Pittsburgh and \$35,000 in stock of ACBB.

Management evaluates the restricted investment in bank stocks for impairment on an annual basis. The determination of whether these investments are impaired is based on management's assessment of the recoverability of the cost of these investments rather than by recognizing temporary declines in value. The following factors were evaluated to determine the ultimate recoverability of the cost of the Corporation's restricted investment in bank stocks; (i) the significance of the decline in net assets of the correspondent bank compared to the capital stock amount for the correspondent bank and the length of time this situation persisted; (ii) commitments by the correspondent bank to make payments required by law or regulation and the level of such payments in relation to the operating performance of the correspondent bank; (iii) legislative and regulatory changes on the institutions and, accordingly, on the customer base of the correspondent bank; and (iv) the liquidity position of the correspondent bank. Based on the analysis of these factors, management determined that no impairment charge was necessary related to the restricted investment in bank stocks during 2018 or 2017.

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Loans

Net loans are stated at their outstanding recorded investment, net of deferred fees and costs, unearned income, and the allowance for loan losses. Interest on loans is recognized as income over the term of each loan, generally, by the accrual method. Loan origination fees and certain direct loan origination costs are deferred with the net amount amortized using the straight line method or the interest method over the life of the related loans as an interest yield adjustment.

Residential mortgage loans held for sale are carried at the lower of cost or market on an aggregate basis, determined by independent pricing from appropriate federal or state agency investors. These loans are sold without recourse. Loans held for sale amounted to \$365,000 at December 31, 2018 and \$834,000 at December 31, 2017.

The loans receivable portfolio is segmented into commercial, residential and consumer loans. Commercial loans consist of the following classes: Commercial and Industrial and Commercial Real Estate.

Commercial and Industrial Lending

The Corporation originates commercial and industrial loans primarily to businesses located in its market area and surrounding areas. These loans are used for various business purposes, which include working capital and lines of credit to finance machinery and equipment, inventory and accounts receivable. Generally, the maximum term for loans extended on machinery and equipment is based on the projected useful life of the machinery and equipment. Most business lines of credit are written on demand and are reviewed periodically.

Commercial and industrial loans are generally secured with short-term assets; however, in many cases, additional collateral such as real estate is provided as additional security for the loan. Loan-to-value ratios and thresholds have been established by the Corporation and are specific to the type of collateral. Commercial

may be determined using invoices, inventory reports, accounts receivable aging reports, business statements, collateral appraisals, etc. Commercial and industrial loans are typically secured by personal guarantees of the borrower.

In underwriting commercial and industrial loans, an analysis is performed to evaluate the borrower's ability and capacity to repay the loan, the adequacy of the borrower's capital and collateral, as well as trends affecting the borrower. Evaluation of the borrower's past, present and future cash flows is also an important aspect of the Corporation's analysis of the borrower's ability to repay.

Commercial and industrial loans generally present a higher level of risk than other types of loans due to the effect of general economic conditions. Commercial and industrial loans are typically made based on the borrower's ability to make repayment from cash flows from the borrower's primary business. As a result, the availability of funds for the repayment of commercial and industrial loans is dependent on the success of the business itself, which in turn, is likely to be dependent upon the general economic environment.

Commercial Real Estate Lending

The Corporation engages in commercial real estate lending in its primary market area and surrounding areas. The Corporation's commercial real estate portfolio is secured primarily by commercial retail space, office buildings, residential housing and hotels. Generally, commercial real estate loans have terms that do not exceed twenty years, have loan-to-value ratios of up to eighty percent of the value of the collateral, and are typically secured by personal guarantees of the borrowers.

In underwriting these loans, the Corporation performs a thorough analysis of the financial condition of the borrower, the borrower's credit history, and the reliability and predictability of the cash flow generated by the property securing the loan. The value of the property is determined by either independent appraisals or evaluations by Bank officers.

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Commercial real estate loans generally present a higher level of risk than residential real estate loans. Repayment of loans secured by commercial real estate is typically dependent upon the success of the related real estate project and/or the effect of the general economic conditions on income producing properties.

Residential Real Estate Lending (Including Home Equity)

The Corporation's residential real estate portfolio is comprised of one-to-four family residential mortgage originations, home equity term loans and home equity lines of credit. These loans are generated through the Corporation's marketing efforts, its present customers, walk-in customers and referrals. These loans are primarily within or with customers from the Corporation's market area.

The Corporation's one-to-four family residential mortgage originations are secured primarily by properties located in its primary market area and surrounding areas. The Corporation offers fixed-rate mortgage terms up to a maximum of thirty years for both permanent structures and those under construction. Mortgage terms of thirty years are normally held for sale and sold without recourse; most of the residential mortgage loans in the Corporation's residential real estate portfolio have maximum terms of twenty years. Generally, the majority of the Corporation's residential mortgage loans originate with a loan-to-value of eighty percent or those with primary mortgage insurance at ninety-five percent or less. Home equity term loans are secured by the borrower's primary residence and typically have a maximum loan-to-value of eighty percent and a term of fifteen years. In general, home equity lines of credit are secured by the borrower's primary residence with a maximum loan-to-value of eighty percent and a maximum term of twenty years.

In underwriting one-to-four family residential mortgage loans, the Corporation evaluates the borrower's ability to make monthly payments, the borrower's repayment history and the value of the property securing the loan. The borrower's ability and willingness to repay is determined by the borrower's employment history, current financial situation and credit background. A majority of the properties securing residential real estate loans made by the Corporation are appraised by independent appraisers. The Corporation generally requires mortgage borrowers to obtain an attorney's title opinion or title insurance and fire and property insurance, if applicable.

Residential mortgage loans, home equity term loans and home equity lines of credit generally present a lower level of risk than consumer loans because they are secured by the borrower's primary residence. However, when the Corporation is in a subordinate position, especially to another lender, for the loan collateral.

Consumer Lending

The Corporation offers a variety of secured and unsecured consumer loans, including vehicle loans and loans secured by financial institution deposits. These loans originate primarily within or without the market area.

Consumer loan terms vary according to the type and value of collateral and creditworthiness of the borrower. In underwriting personal loans, a thorough analysis is performed regarding the borrower's willingness and ability to repay the loan as agreed. The ability to repay is determined by the borrower's employment, current financial condition and credit background.

Consumer loans may entail greater credit risk than residential real estate loans, particularly in the case of personal loans which are unsecured or are secured by rapidly depreciable assets, such as automobiles and recreational equipment. In such cases, repossessed collateral for a defaulted personal loan may not be an adequate source of repayment of the outstanding loan balance as a result of the greater likelihood of loss or depreciation. In addition, personal loan collections are dependent on the borrower's continued employment and stability and therefore, are more likely to be affected by adverse personal circumstances. Furthermore, the application of various federal and state laws, including bankruptcy and insolvency laws, may limit the amount of collateral which can be recovered on such loans.

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Delinquent Loans

Generally, a loan is considered to be past-due when scheduled loan payments are in arrears 10 days. Delinquent notices are generated automatically when a loan is 10 or 15 days past-due, depending on the loan type. Collection efforts continue on past-due loans that have not been brought current, when it is believed a reasonable chance exists for improvement in the status of the loan. Past-due loans are continually evaluated and a determination for charge-off being made when no reasonable chance remains that the status of the loan will be improved.

Commercial and Industrial and Commercial Real Estate loans are charged off in whole or in part when they become sufficiently delinquent based upon the terms of the underlying loan contract and when a deficiency exists. Because all or part of the contractual cash flows are not expected to be collected, the loans are considered to be impaired, and the Bank estimates the impairment based on its analysis of the collateral and the collateral estimated at fair value less cost to sell.

Residential Real Estate and Consumer loans are charged off when they become sufficiently delinquent based upon the terms of the underlying loan contract and when the value of the underlying collateral is insufficient to support the loan balance and a loss is expected. At that time, the amount of estimated collateral value, if any, is charged off for loans secured by collateral, and all other loans are charged off in full. Loans not secured by collateral are charged down to the estimated fair value of the collateral less cost to sell.

Loans in which the borrower is in bankruptcy are considered on a case by case basis and are either charged off or reaffirmed by the borrower.

Generally, a loan is classified as non-accrual and the accrual of interest on such a loan is discontinued when contractual payment of principal or interest has become 90 days past due or management has serious doubts about further collectability of principal or interest, even though the loan may currently be performing. Loans may remain on accrual status if it is well secured (or supported by a strong guarantee) and in the process of collection. When a loan is placed on non-accrual status, unpaid interest credited to income in the prior period is reversed.

reversed and unpaid interest accrued in prior years is charged against interest income. Certain nonaccrual loans may continue to perform; that is, payments are still being received. Generally, the payments are principal. These loans remain under constant scrutiny, and if performance continues, interest income is recorded on a cash basis based on management's judgment as to collectability of principal.

Allowance for Loan Losses

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

The allowance for loan losses is maintained at a level estimated by management to be adequate to cover potential loan losses. Management's periodic evaluation of the adequacy of the allowance for loan losses is based on the Corporation's past loan loss experience, known and inherent risks in the portfolio, adverse changes in borrowers' ability to repay (including the timing of future payments), the estimated fair value of the underlying collateral, composition of the loan portfolio, current economic conditions, and other factors. This evaluation is inherently subjective as it requires material estimates including the amounts and timing of future cash flows expected to be received on impaired loans that may be susceptible to significant risk.

The allowance consists of specific, general and unallocated components. The specific component includes loans that are individually classified as impaired. Select loans are not aggregated for collective impairment evaluation; as such, all loans are subject to individual impairment evaluation should the facts and circumstances surrounding a particular loan suggest that such evaluation is necessary. Factors considered by management in determining impairment include payment status and the probability of collecting scheduled principal and interest 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 the shortfall in relation to the principal and interest owed. If a loan is impaired, a portion of the allowance is allocated so that the loan is reported, net, at the present value of estimated future cash flows discounted at the existing rate or at the fair value of collateral if repayment is expected solely from collateral. Troubled debt restructurings are separately identified for impairment disclosures and are measured at the present value of estimated future cash flows using the loan's effective rate at inception. If a troubled debt restructuring is considered to be a collateral dependent loan, the loan may be reported, net, at the fair value of the collateral. If troubled debt restructurings that subsequently default, the Corporation determines the amount of impairment in accordance with the accounting policy for the allowance for loan losses.

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The general component covers all other loans not identified as impaired and is based on historical and qualitative factors. The historical loss component of the allowance is determined by losses recognized on the portfolio segment over a time period that management has determined represents the current credit environment. Qualitative factors impacting each portfolio segment may include: delinquency trends, loan volume changes, policy changes, management processes and oversight, economic trends (including change in consumer and business disposable incomes, unemployment and under-employment levels, and other conditions), asset concentrations by industry or product, internal and external loan review processes, collateral value and conditions, and external factors including regulatory issues and competition.

The unallocated component of the allowance is maintained to cover uncertainties that could affect management's estimate of probable losses. The unallocated component of the allowance reflects the margin of safety inherent in the underlying assumptions used in the methodologies for estimating specific and general allowances on the portfolio.

A reserve for unfunded lending commitments is provided for possible credit losses on off-balance sheet exposures. The reserve for unfunded lending commitments represents management's estimate of probable losses on its unfunded loan commitments and, if necessary, is recorded in other liabilities on the Consolidated Balance Sheets. As of December 31, 2018 and 2017 the amount of the reserve for unfunded lending commitments was \$117,000 and \$116,000, respectively.

The Corporation is subject to periodic examination by its federal and state examiners, and may be required to provide such regulators to recognize additions to the allowance for loan losses based on their assessment of the information available to them at the time of their examinations.

A loan is considered impaired when, based on current information and events, it is probable that the borrower will be unable to collect all amounts due according to the contractual terms of the original loan agreement. In accordance with current accounting standards, the allowance for loan losses related to impaired loans is based on the present value of cash flows using the loan's effective interest rate at inception or the fair value of the collateral for collateral dependent loans.

The restructuring of a loan is considered a “troubled debt restructuring” if both the following conditions are met: (i) the borrower is experiencing financial difficulties, and (ii) the Bank has granted a concession. Common concessions granted include one or more modifications to the terms of the debt, such as (a) a reduction in the interest rate for the remaining life of the debt, (b) an extension of the maturity date at an interest rate higher than the current market rate for new debt with similar risk, (c) a temporary period of interest-on-interest, and (d) a reduction in the contractual payment amount for either a short period or remaining term of the debt. A common concession is the forgiveness of a portion of the principal.

The determination of whether a borrower is experiencing financial difficulties takes into account the current financial condition of the borrower, but also the potential financial condition of the borrower if a concession is not granted. Similarly, the determination of whether a concession has been granted is based on the facts and circumstances in nature. For example, simply extending the term of a loan at its original interest rate or even at a higher rate could be interpreted as a concession unless the borrower could readily obtain similar credit from a different lender.

Loans modified in a troubled debt restructuring are considered impaired and may or may not be placed on non-accrual status until the Bank determines the future collection of principal and interest is reasonable. This determination generally requires that the borrower demonstrates a period of performance according to the original terms of six months.

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The Bank utilizes a risk grading matrix as a tool for managing credit risk in the loan portfolio and assigns an asset quality rating (risk grade) to all Commercial and Industrial, Commercial Real Estate, Residential Real Estate and Consumer borrowings. An asset quality rating is assigned using the guidance provided in the Bank's loan policy. Primary responsibility for assigning the asset quality rating rests with the lender. The rating is validated periodically by both an internal and external loan review process.

The commercial loan grading system focuses on a borrower's financial strength and performance, depth of management, primary and secondary sources of repayment, the nature of the business and industry for the particular industry. Primary emphasis is placed on financial condition and trends. The grade is also influenced by current economic and industry conditions; as well as other variables such as liquidity, cash flow, revenue/earnings trends, management strengths or weaknesses, quality of financial information, and repayment history.

The loan grading system for Residential Real Estate and Consumer loans focuses on the borrower's credit history, debt-to-income ratio and income sources, collateral position and loan-to-value ratio, as well as other variables such as current economic conditions, and individual strengths and weaknesses.

Risk grade characteristics are as follows:

Risk Grade 1 – MINIMAL RISK through Risk Grade 6 – MANAGEMENT ATTENTION (Pass C

Risk is evaluated via examination of several attributes including but not limited to financial trends, management weaknesses, likelihood of repayment when considering both cash flow and collateral, sources of income, leverage position, management expertise, and repayment history.

At the low-risk end of the rating scale, a risk grade of 1 - Minimal Risk is the grade reserved for borrowers with exceptional credit fundamentals and virtually no risk of default or loss. Loan grades then progress

escalating ratings of 2 through 6 based upon risk. Risk Grade 2 - Modest Risk are loans with sufficient cash flows; Risk Grade 3 - Average Risk are loans with key balance sheet ratios slightly above the borrower's industry averages; Risk Grade 4 - Acceptable Risk are loans with key balance sheet ratios usually near the borrower's industry averages or more ratios may be higher; and Risk Grade 5 – Marginally Acceptable are loans with strained cash flows, increasing leverage and/or weakening markets. Risk Grade 6 - Management Attention are loans with cash flows resulting from declining performance trends and the borrower's cash flows may be temporarily insufficient. Loans in this category are performing according to terms, but present some type of potential concern.

Risk Grade 7 – SPECIAL MENTION (Non-Pass Category)

Generally, these loans or assets are currently protected, but are “potentially weak.” They constitute an undue credit risk but not to the point of justifying a classification of substandard.

Assets in this category are currently protected but have potential weakness which may, if not corrected, weaken the asset or inadequately protect the Bank's credit position at some future date if principal or interest is envisioned; however, they constitute an undue credit risk that may be minor. Risk is increasing beyond the loan originally would have been granted. Historically, cash flows are inconsistent; financial information shows some deterioration. Liquidity and leverage are above industry averages. Financial information is incomplete or inadequate. A Special Mention asset has potential weaknesses that deserve management attention.

Risk Grade 8 – SUBSTANDARD (Non-Pass Category)

Generally, these assets are inadequately protected by the current sound worth and paying capacity of the collateral pledged, if any. Assets so classified must have “well-defined” weaknesses that threaten the full liquidation of the debt.

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These loans are characterized by the distinct possibility that the Bank will sustain some loss if the amount of substandard assets is not fully covered by the liquidation of the collateral used as security. Substandard loans have a high probability of payment default and require more intensive supervisory management.

Risk Grade 9 – DOUBTFUL (Non-Pass Category)

Generally, loans graded doubtful have all the weaknesses inherent in a substandard loan with the exception that the weaknesses are pronounced to a point whereby the basis of current information, conditions, and trends indicate that collection or liquidation in full is deemed to be highly improbable. The possibility of loss is extended because of certain important and reasonably specific pending factors that may work to strengthen the classification is deferred until, for example, a proposed merger, acquisition, liquidation procedure, stock injection, perfection of liens on additional collateral and/or refinancing plan is completed. Loans are classified as doubtful if they contain weaknesses so serious that collection or liquidation in full is questionable.

Premises and Equipment

Premises, improvements, and equipment are stated at cost less accumulated depreciation computed utilizing the straight-line method over the estimated useful lives of the assets. Long-lived assets are tested for impairment whenever events or changes in business circumstances indicate that the carrying value may not be recoverable. Maintenance and minor repairs are charged to operations as incurred. The cost and accumulated depreciation of the premises and equipment retired or sold are eliminated from the property accounts at retirement or sale, and the resulting gain or loss is reflected in current operations.

Mortgage Servicing Rights

The Corporation originates and sells real estate loans to investors in the secondary mortgage market. Upon the sale of mortgage loans, the Corporation may retain the right to service these loans. The mortgage loans sold and serviced by the Corporation are not included in the Consolidated Balance Sheets. The unpaid principal balances of mortgage loans sold and serviced for others were \$97,201,000 and \$100,179,000 at December 31, 2018 and 2017, respectively. When mortgage loans are sold and servicing is retained, a servicing asset is capitalized based on the relative fair value of the mortgage loans at the date of the sale. Servicing assets are amortized as an offset to other fees in proportion to, and not in excess of, estimated net servicing income. The servicing asset is included in other assets in the Consolidated Balance Sheets and amounted to \$316,000 at December 31, 2018 and \$379,000 at December 31, 2017. Total servicing income earned was \$247,000 and \$246,000 at December 31, 2018 and 2017, respectively. Amortization recognized in relation to mortgage servicing rights was \$129,000 and \$135,000 at December 31, 2018 and 2017, respectively. Both income and amortization are included in service charges and fees in the Consolidated Statements of Income. Gains or losses on sales of mortgage loans are recognized as the difference between the selling price and the carrying value of the related mortgage loans sold.

Bank Owned Life Insurance

The cash surrender value of bank owned life insurance is carried as an asset, and changes in cash surrender value are recorded as non-interest income.

The Bank entered into agreements to provide post-retirement benefits to two retired employees in the form of life insurance payable to the employee's beneficiaries upon their death through endorsement split-dollar insurance arrangements. The Bank's accrued liabilities for this benefit agreement as of December 31, 2018 and 2017 was \$40,000 and \$41,000, respectively. The related expense for this benefit agreement amounted to \$(1,000) for the years ended December 31, 2018 and 2017.

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Investments in Low-Income Housing Partnerships

The Bank is a limited partner in real estate ventures that own and operate affordable residential housing apartment buildings for elderly and mentally challenged adult residents. The investments are recorded for under the cost method. Under the cost method, the Bank recognizes tax credits as they are allocated and amortizes the initial cost of the investment over the period that the tax credits are allocated to the investment. The amount of tax credits allocated to the Bank were \$405,000 in 2018 and \$323,000 in 2017, and the carrying amount of the investments in the limited partnerships were \$530,000 and \$181,000 in 2018 and 2017, respectively. During 2015, the Bank became a limited partner in a real estate venture with an initial investment of \$1,178,000 and additional capital contributions of \$1,178,000 made in 2016 and \$252,000 made in 2017. The investment was completed and the property was occupied in 2017.

Goodwill and Core Deposit Intangibles

Goodwill resulted from the acquisition of the Pocono Community Bank in November 2007 and the acquisition of operating assets acquired and deposit liabilities assumed of the branch of another financial institution in Danville, Pennsylvania, in January 2004. Such goodwill represents the excess cost of the acquisition over the fair value of the net assets to the assets fair value at the dates of acquisition. During the first quarter of 2008, \$152,000 of goodwill related to the Pocono acquisition were recorded as a purchase accounting adjustment resulting in an increase in the excess purchase price. The amount was comprised of the finalization of severance agreements and other employee terminations related to the acquisition. In accordance with current accounting standards, goodwill is not amortized. Management performs an annual evaluation for impairment. Any impairment of goodwill is charged to income. The Corporation periodically assesses whether events or changes in circumstances indicate that the carrying amounts of goodwill and other intangible assets may be impaired. Goodwill is tested for impairment at the reporting unit level and an impairment loss is recorded to the extent that the carrying amount of goodwill exceeds its implied fair value. The Corporation has evaluated the goodwill included in the consolidated balance sheet at September 30, 2018, and has determined there was no impairment. In addition, the Corporation did not identify any impairment in 2017. No assurance can be given that future impairment tests will not result in a charge to earnings.

Intangible assets are comprised of core deposit intangibles and premium discount (negative premium) on certificates of deposit acquired. The core deposit intangible was being amortized over the average life of the deposits acquired as determined by an independent third party. Premium discount (negative premium) on certificates of deposit resulted from the valuation of certificate of deposit accounts by an independent third party. The book value of certificates of deposit acquired was greater than their fair value at the time of acquisition which resulted in a negative premium due to higher cost of the certificates of deposit compared to the cost of similar term financing. The core deposit intangible was subject to impairment testing whenever events or changes in circumstances indicate its carrying amount may not reflect its benefit. As of June 30, 2018, the deposit intangible was fully amortized.

Stock Based Compensation

The Corporation adopted a stock option incentive plan in 1998. Compensation cost is recognized over the requisite service period for options to employees based on the fair value of these awards at the date of grant. A Black-Scholes Pricing Model is utilized to estimate the fair value of stock options. Compensation expense is recorded over the requisite service period. The Plan expired in 2008, and therefore, no stock options are available for grant. After adjustments for the effects of stock dividends, options exercised and options forfeited, there were no exercisable options issued and outstanding as of December 31, 2018.

Foreclosed Assets Held for Resale

Real estate properties acquired through, or in lieu of, loan foreclosure are held for sale and are recorded at fair value less costs to sell on the date of foreclosure establishing a new cost basis. After foreclosure, valuations are periodically performed and if fair value less costs to sell declines subsequent to foreclosure, a valuation allowance is recorded through expense. Revenues derived from and costs to maintain properties held for sale subsequent gains and losses on sales are included in non-interest expense on the Consolidated Statement of Income.

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Income Taxes

The Corporation accounts for income taxes in accordance with income tax accounting guidance Topic 740, *Income Taxes*.

Current income tax accounting guidance results in two components of income tax expense: current and deferred. Current income tax expense reflects taxes to be paid or refunded for the current period by applying the provisions of the enacted tax law to the taxable income or excess of deductions over revenues. The Corporation determines deferred income taxes using the liability (or balance sheet) method. Under this method, a deferred tax asset or liability is based on the tax effects of the differences between the book and tax values of assets and liabilities, and enacted changes in tax rates and laws are recognized in the period in which they occur.

Deferred income tax expense results from changes in deferred tax assets and liabilities between periods. Deferred tax assets are reduced by a valuation allowance if, based on the weight of the evidence, it is more likely than not that some portion or all of a deferred tax asset will not be realized.

The Corporation accounts for uncertain tax positions if it is more likely than not, based on the technical merits, that the tax position will be realized or sustained upon examination. The term more-likely-than-not is defined as a likelihood of more than 50%; the terms examined and upon examination also include resolution through appeals or litigation processes, if any. A tax position that meets the more-likely-than-not recognition threshold is initially and subsequently measured as the largest amount of tax benefit that has a greater than 50% chance of being realized upon settlement with a taxing authority that has full knowledge of all relevant facts and circumstances, including the determination of whether or not a tax position has met the more-likely-than-not recognition threshold, based on the facts, circumstances, and information available at the reporting date and is subject to management judgment.

The Corporation recognizes interest and penalties on income taxes, if any, as a component of income tax expense.

Earnings Per Share

Basic earnings per share (“EPS”) is computed by dividing net income by the weighted average common shares outstanding for the period. Diluted EPS reflects the potential dilution that could occur if all other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock that then shared in the earnings of the Corporation. Potential common shares to be issued by the Corporation relate solely to outstanding stock options and are determined using the treasury stock method. The following table sets forth the computation of basic and diluted earnings per share.

	Year Ended	
	December 31,	
	2018	2017
(In thousands, except earnings per share)		
Net income	\$9,211	\$8,648
Weighted-average common shares outstanding	5,737	5,689
Basic earnings per share	\$1.60	\$1.52
Weighted-average common shares outstanding	5,737	5,689
Common stock equivalents due to effect of stock options	—	—
Total weighted-average common shares and equivalents	5,737	5,689
Diluted earnings per share	\$1.60	\$1.52

Treasury Stock

The purchase of the Corporation’s common stock is recorded at cost. At the date of subsequent sale, the treasury stock account is reduced by the cost of such stock on a first-in-first-out basis.

Trust Assets and Revenues

Property held by the Corporation in a fiduciary or agency capacity for its customers is not included in the accompanying consolidated financial statements since such items are not assets of the Corporation. Trust assets in Trust were \$105,917,000 and \$111,130,000 at December 31, 2018 and 2017, respectively. Trust income is generally recognized on a cash basis and is not materially different than if it were recognized on an accrual basis.

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Comprehensive Income (Loss)

The Corporation is required to present accumulated other comprehensive income (loss) in a full general-purpose financial statements for all periods presented. Accumulated other comprehensive income (loss) is comprised of net unrealized holding gains (losses) on the available-for-sale securities portfolio. The Corporation has elected to report these effects on the Consolidated Statements of Comprehensive Income (Loss).

Advertising Costs

It is the Corporation's policy to expense advertising costs in the period in which they are incurred.

Recent Accounting Standards Updates ("ASU") – Adopted:

Except as disclosed below, there were no new accounting pronouncements affecting the Corporation's financial statements for the year ended December 31, 2018 that were not already adopted by the Corporation in previous periods.

On January 1, 2018, the Corporation adopted ASU 2014-09, *Revenue from Contracts with Customers*, and subsequent amendments to the ASU (collectively "ASC 606"), which (i) creates a single framework for recognizing revenue from contracts with customers that fall within its scope and (ii) revises when and how to recognize a gain (loss) from the transfer of nonfinancial assets, such as OREO. The Corporation's revenue comes from interest income, including loans and securities, which are outside the scope of ASC 606. The Corporation's services that fall within the scope of ASC 606 are presented as interest income on the consolidated statements of income and are recognized as revenue as the Corporation fulfills its obligation to the customer. Services within the scope of ASC 606 include deposit related fees and charges, interchange fees and surcharges, and income from wealth management activities. ASC 606 does not result in a change to the accounting for any in-scope revenue streams; as such, no cumulative effect adjustment was recorded. New disclosures required by the ASU are included in Note 18, "Revenue Recognition".

On January 1, 2018, the Corporation adopted ASU 2016-01, *Financial Instruments-Overall (Topic 815): Recognition and Measurement of Financial Assets and Financial Liabilities*, which amended the classification and measurement of financial instruments. Adoption of ASU 2016-01 resulted in: (1) classification of marketable equity securities previously included in investment securities available for sale on the consolidated balance sheets, (2) changes in the fair value of the equity securities being captured on the consolidated statements of income and (3) an increase in retained earnings and corresponding decrease in accumulated other comprehensive loss of \$634,000 at January 1, 2018 for the after-tax impact of the new accounting for the unrealized gain on the equity securities. Adoption of the standard also resulted in the use of the exit price to determine the fair value of financial instruments not measured at fair value in the consolidated balance sheets. For more information about fair value disclosures, refer to Note 17, "Fair Value Measurements."

In August 2016, the Financial Accounting Standards Board ("FASB") issued ASU 2016-15 – *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (a consensus of the FASB Emerging Issues Task Force)*. ASU No. 2016-15 addresses eight cash flow issues with specific guidance on how cash receipts and cash payments should be presented on the statement of cash flows. ASU No. 2016-15 is effective for annual periods and interim periods within those annual periods beginning after December 15, 2017. The adoption of ASU No. 2016-15 in 2018 had no material effect on the Corporation's cash flows.

In November 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-18 – *Statement of Cash Flows-Restricted Cash (Topic 230)*. The amendments in this Update clarify the inclusion of restricted cash in the cash and cash equivalents beginning-of-period and end-of period reconciliation on the statement of cash flows. For public business entities that are SEC filers, such as the Corporation, the amendments in this Update are effective for fiscal years beginning after December 15, 2017, and for interim periods within those fiscal years. The implementation of this ASU in 2018 had no material effect on the Corporation's cash flows.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY

Notes to Consolidated Financial Statements

In March 2017, the Financial Accounting Standards Board (“FASB”) issued ASU 2017-07, *Corporation Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Postretirement Benefit Cost*. The amendments apply to all entities that offer employees defined pension plans, other postretirement benefit plans, or other types of benefits accounted for under Topic 715, Compensation — Retirement Benefits. The amendments require that an employer report the service cost component in the same line item or items as other compensation costs arising from services rendered to the pertinent employees during the period. The other components of net benefit cost are required to be reported in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. The amendments also allow only the service cost component to be capitalized when applicable (e.g., as a cost of internally manufactured inventory or a self-constructed asset). The ASU is effective for public business entities for annual periods beginning after December 15, 2017, including interim periods within those annual periods. The adoption of this update in 2018 had no material impact on the Corporation’s consolidated financial position or results of operations.

In February 2018, the Financial Accounting Standards Board (“FASB”) issued ASU 2018-02, *Corporation Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (“AOCI”)*. This ASU provides financial statement preparers with an option to reclassify stranded tax effects within AOCI to retained earnings in each period in which the effect of the change in the federal corporate income tax rate in the Tax Cuts and Jobs Act (or portion thereof) are recorded. The amendments apply to organizations for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted. Organizations should apply the amendments either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Cuts and Jobs Act is recognized. The Corporation elected to early adopt this ASU effective January 1, 2018. Adoption resulted in a reclassification between retained earnings and accumulated other comprehensive loss of \$360,000 at January 1, 2018, which is included in the consolidated statement of changes in stockholders’ equity.

Pending ASUs:

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. ASU No. 2016-02 changes the accounting for leases, requiring that lease assets and liabilities arising from operating leases be recognized on the balance sheet. In August 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 opt

method under which comparative periods presented in the financial statements will continue to be reported under Topic 840, Leases, and a practical expedient to not separate non-lease components from the lease component. Topic 842 would not significantly change the recognition, measurement and presentation of lease expenses and cash flows arising from a lease by a lessee from current U.S. GAAP. For leases with terms 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 provision using the optional transition method under ASU 2018-11 as of January 1, 2019. The Corporation estimates that the adoption will result in recognition of right-of-use assets and lease liabilities for operating leases of approximately \$1,465,000 and \$1,556,000, respectively, on its Consolidated Balance Sheets, with a corresponding adjustment to stockholders' equity and no material impact to its consolidated statements of income.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments-Credit Losses (Topic 326) Measurement of Credit Losses on Financial Instruments*. ASU No. 2016-13 requires financial assets measured at amortized cost to be presented at the net amount expected to be collected, through an allowance for credit losses that is deducted from the amortized cost basis. The measurement of expected credit losses is based on all available information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. ASU No. 2016-13 is effective for annual periods and interim periods within those annual periods beginning after December 15, 2019. Early adoption is permitted for annual and interim periods beginning after December 15, 2018. While the Corporation is currently evaluating the provisions of ASU 2016-13 to determine the potential impact of the new standard on the Corporation's Consolidated Financial Statements, it has taken steps to prepare for the standard when it becomes effective, such as: forming an internal committee, gathering pertinent data, consulting with outside professionals, and subscribed to a new software system.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY

Notes to Consolidated Financial Statements

In January 2017, the Financial Accounting Standards Board (“FASB”) issued ASU 2017-04, *Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*. The ASU simplifies the measurement of goodwill by eliminating Step 2 from the goodwill impairment test. Instead, under the amendments, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value with its carrying amount. Additionally, an entity should consider income tax effects from deductible goodwill on the carrying amount when measuring the goodwill impairment loss, if applicable. The update also eliminated the requirements for zero or negative carrying amount to perform a qualitative test, and, if it fails that qualitative test, to perform Step 2 of the goodwill impairment test. The amendments are effective for public business entities for its annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The adoption of this update is not expected to have a material impact on the Corporation’s consolidated financial position or results of operations.

In March 2017, the Financial Accounting Standards Board (“FASB”) issued ASU 2017-08, *Receivables - Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Financial Assets*. The ASU shortens the amortization period for certain callable debt securities held at a discount. Specifically, the amendments require the premium to be amortized to the earliest call date. The amendments do not require an accounting change for securities held at a discount; the discount continues to be amortized to maturity. The amendments are effective for public business entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The amendments should be applied on a retrospective basis, with a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. The Corporation does not expect this adoption to have a material impact on its consolidated financial statements and related disclosures.

In August 2018, The Financial Accounting Standards Board (“FASB”) issued ASU 2018-13, *Fair Value Measurement (Topic 820) – Disclosure Framework – Changes to Disclosure Requirements for Fair Value Measurements*. The amendments in this Update removed required disclosures regarding as follows: 1. The amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, 2. The timing of transfers between levels, 3. The valuation processes for Level 3 fair value measurements. The Update modified the disclosure requirements on fair value measurements in Topic 820: 1. The disclosure of unrealized gains and losses for the period included in other comprehensive income for recurring fair value measurements held at the end of the reporting period and 2. The range and weighted average of unobservable inputs used to develop Level 3 fair value measurements. For certain unobservable inputs, an entity may disclose other quantitative information (such as the median or arithmetic average) in lieu of the weighted average if the entity determines that other quantitative information would be a more reasonable

method to reflect the distribution of unobservable inputs used to develop Level 3 fair value measurements. The amendments in this Update are effective for all entities for fiscal years, and interim periods with reporting periods beginning after December 15, 2019. An entity is permitted to early adopt any removed or modified disclosures upon issuance of this Update and delay adoption of the additional disclosures until the beginning of the next reporting period. The Corporation will be assessing the impact that this guidance will have on its consolidated financial statements and related disclosures.

Transfer of Financial Assets

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

Off-Balance Sheet Financial Instruments

In the ordinary course of business, the Bank has entered into off-balance sheet financial instruments, including letters of credit and commitments to extend credit. Such financial instruments are recorded in the Consolidated Balance Sheets when they are funded.

Reclassifications

Certain amounts previously reported have been reclassified, when necessary, to conform with presentation in the 2018 consolidated financial statements. Such reclassifications have no effect on the Corporation's net income.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements****NOTE 2 — RESTRICTED CASH BALANCES**

The Bank is required to maintain certain average reserve balances as established by the Federal Reserve Bank of Dallas. The amount of those reserve balances for the reserve computation period which included December 31, 2018 and 2017, was \$1,178,000 and \$1,402,000, respectively, which was satisfied through the restriction of restricted cash. In addition, the Bank maintains a clearing balance at the Federal Reserve Bank to offset daily cash management activities and specific charges for services. At December 31, 2018 and 2017, the clearing balance was \$1,118,000 and \$815,000, respectively.

NOTE 3 — SECURITIES

The amortized cost, related estimated fair value, and unrealized gains and losses for debt securities classified as “available-for-sale” were as follows at December 31, 2018 and 2017:

(Dollars in thousands)	Available-for-Sale Debt Securities		
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses
December 31, 2018:			
U.S. Treasury securities	\$5,307	\$ —	\$ (12)
Obligations of U.S. Government Corporations and Agencies:			
Mortgage-backed	66,300	105	(1,521)
Other	18,706	21	(484)
Other mortgage backed securities	4,767	—	(18)
Obligations of state and political subdivisions	182,621	1,678	(2,021)
Asset backed securities	14,323	47	—
Corporate debt securities	27,297	24	(1,071)
Total	\$319,321	\$ 1,875	\$ (5,143)
(Dollars in thousands)			
	Available-for-Sale Debt Securities		
	Gross	Gross	Gross

	Amortized Cost	Unrealized Gains	Unrealized Losses
December 31, 2017:			
U.S. Treasury securities	\$—	\$ —	\$ —
Obligations of U.S. Government Corporations and Agencies:			
Mortgage-backed	82,825	210	(1,170)
Other	22,409	132	(308)
Other mortgage backed debt securities	—	—	—
Obligations of state and political subdivisions	211,743	4,690	(911)
Asset backed securities	—	—	—
Corporate debt securities	29,645	90	(764)
Total	\$346,622	\$ 5,122	\$ (3,153)

Available-for-sale debt securities with an aggregate fair value of \$149,993,000 at December 31, 2018 and \$290,104,000 at December 31, 2017, were pledged to secure public funds, trust funds, securities agreements to repurchase, debtor in possession funds and the Federal Discount Window aggregate of \$112,528,000 at December 31, 2018 and \$224,659,000 at December 31, 2017.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

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

(Dollars in thousands)	Available for Sale Amortized	
	Cost	Fair Value
1 year or less	\$4,268	\$4,264
Over 1 year through 5 years	55,283	54,544
Over 5 years through 10 years	86,076	84,779
Over 10 years	102,627	102,842
Mortgage-backed securities	71,067	69,625
Total	\$319,321	\$316,054

There were no aggregate securities with a single issuer (excluding the U.S. Government and U.S. Agencies and Corporations) which exceeded ten percent of consolidated stockholders' equity at December 31, 2018. The quality rating of the obligations of state and political subdivisions are generally investment grade as rated by Moody's, Standard and Poor's or Fitch. The typical exceptions are local issues which are not investment grade but are secured by the full faith and credit obligations of the communities that issued these securities.

Proceeds from sales of investments in available-for-sale debt securities during 2018 and 2017 were \$1,024,000 and \$81,807,000, respectively. Gross gains realized on these sales were \$122,000 and \$1,024,000, respectively. Gross losses on these sales were \$115,000 and \$86,000, respectively. There were no impairments on available-for-sale debt securities during 2018 or 2017.

At December 31, 2018 and 2017, the Corporation had \$1,560,000 and \$1,632,000, respectively, of equity securities recorded at fair value. Prior to January 1, 2018, equity securities were stated at fair value and unrealized gains and losses reported as a separate component of accumulated other comprehensive income (AOCI), net of tax. At December 31, 2017, net unrealized gains, net of tax, of \$634,000 had been recorded in AOCI. On January 1, 2018, these unrealized gains and losses were reclassified out of AOCI and included in earnings with subsequent changes in fair value being recognized in net income. The following information

unrealized and realized gains and losses recognized in net income on equity securities during 20

(Dollars in thousands)

Net losses recognized during the period on equity securities

Net gains and (losses) recognized during the period on equity securities sold during the period

Net losses recognized during the reporting period on equity securities still held at the reporting

The Corporation and its investment advisors monitor the entire portfolio at least quarterly with particular attention given to securities in a continuous loss position of at least ten percent for over twelve months. Based on the factors described above, management did not consider any securities to be other-than-temporarily impaired as of December 31, 2018 and 2017.

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FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

In accordance with disclosures required by FASB ASC 320-10-50, *Investments - Debt and Equity*, the summary below shows the gross unrealized losses and fair value of the Corporation's debt securities by investment category, of which individual securities have been in a continuous unrealized loss position for more than 12 months or 12 months or more as of December 31, 2018 and 2017:

December 31, 2018

(Dollars in thousands)

	Less Than 12 Months		12 Months or More		Total
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value
Available-for-Sale:					
U.S. Treasury securities	\$5,295	\$ (12)	\$—	\$—	\$5,295
Obligations of U.S. Government Corporations and Agencies:					
Mortgage-backed	3,690	(17)	55,443	(1,512)	59,104
Other	7,553	(66)	7,067	(418)	14,606
Other mortgage backed debt securities	4,749	(18)	—	—	4,749
Obligations of state and political subdivisions	14,453	(75)	66,583	(1,946)	81,015
Asset backed securities	—	—	—	—	—
Corporate debt securities	1,823	(29)	19,477	(1,049)	21,321
Total	\$37,563	\$ (217)	\$148,570	\$ (4,925)	\$186,901

December 31, 2017

(Dollars in thousands)

	Less Than 12 Months		12 Months or More		Total
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value
Available-for-Sale:					
U.S. Treasury securities	\$—	\$—	\$—	\$—	\$—
Obligations of U.S. Government Corporations and Agencies:					

Mortgage-backed	30,555	(300)	33,943	(875)	64,4
Other	2,905	(4)	7,179	(304)	10,0
Other mortgage backed securities	—	—	—	—	—
Obligations of state and political subdivisions	36,149	(329)	22,566	(582)	58,7
Asset backed securities	—	—	—	—	—
Corporate debt securities	6,746	(24)	15,174	(740)	21,9
Total	\$76,355	\$ (657)	\$78,862	\$ (2,501)	\$155

The Corporation invests in various forms of agency debt including mortgage backed securities and municipal securities. The mortgage backed securities are issued by FHLMC (“Federal Home Loan Mortgage Corporation”) or GNMA (“Government National Mortgage Association”) or GNMA (“Government National Mortgage Association”). Municipal securities consist of general obligations and revenue bonds. The fair market value of these securities is influenced by market interest rates, prepayment speeds on mortgage securities, bid-ask spreads in the market place and credit premiums for various types of agency debt. These factors change constantly and therefore the market value of these securities may be higher or lower than the Corporation’s carrying value at the measurement date. Management does not believe any of their 27 debt securities with a less than one year or greater unrealized loss position, or any of their 103 debt securities with a one year or greater unrealized loss position as of December 31, 2018, represent an other-than-temporary impairment, as these unrealized losses are attributable principally to changes in interest rates subsequent to the acquisition of the specific securities.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements****NOTE 4 — LOANS AND ALLOWANCE FOR LOAN LOSSES**

The following table presents the classes of the loan portfolio summarized by risk rating as of December 31, 2018 and 2017:

(Dollars in thousands)	Commercial and Industrial		Commercial Real Estate	
	2018	2017	2018	2017
Grade:				
1-6 Pass	\$90,835	\$97,832	\$329,126	\$276,688
7 Special Mention	6	10	5,249	1,514
8 Substandard	1,219	1,334	13,403	12,210
9 Doubtful	—	—	—	—
Add (deduct): Unearned discount and Net deferred loan fees and costs	160	161	698	564
Total loans	\$92,220	\$99,337	\$348,476	\$290,972
			Residential Real Estate	
			Including Home Equity	Consumer Loans
			2018	2017
Grade:				
1-6 Pass	\$158,755	\$161,405	\$5,854	\$5,997
7 Special Mention	121	124	1	52
8 Substandard	941	1,444	9	24
9 Doubtful	—	—	—	—
Add (deduct): Unearned discount and Net deferred loan fees and costs	(76)	(47)	91	92
Total loans	\$159,741	\$162,925	\$5,955	\$6,165

Total Loans

	2018	2017
Grade:		
1-6 Pass	\$584,570	\$541,916
7 Special Mention	5,377	1,700
8 Substandard	15,572	15,012
9 Doubtful	—	—
Add (deduct): Unearned discount and	—	(1)
Net deferred loan fees and costs	873	770
Total loans	\$606,392	\$559,397

Commercial and Industrial and Commercial Real Estate include loans categorized as tax-free in
\$24,161,000 and \$2,164,000 at December 31, 2018 and \$40,926,000 and \$2,315,000 at Decemb
Loans held for sale amounted to \$365,000 at December 31, 2018 and \$834,000 at December 31

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

The activity in the allowance for loan losses, by loan class, is summarized below for the years in

<i>(Dollars in thousands)</i>	Commercial and Industrial	Commercial Real Estate	Residential Real Estate	Consumer	Unalloca
2018					
Allowance for Loan Losses:					
Beginning balance	\$ 949	\$ 4,067	\$ 1,656	\$ 111	\$ 704
Charge-offs	(18	) (783	) (181	) (57) —
Recoveries	31	60	—	6	—
Provision	(238	) 356	175	57	(150
Ending Balance	\$ 724	\$ 3,700	\$ 1,650	\$ 117	\$ 554
Ending balance: individually evaluated for impairment	\$ —	\$ 1	\$ —	\$ —	\$ —
Ending balance: collectively evaluated for impairment	\$ 724	\$ 3,699	\$ 1,650	\$ 117	\$ 554
Loans Receivable:					
Ending Balance	\$ 92,220	\$ 348,476	\$ 159,741	\$ 5,955	\$ —
Ending balance: individually evaluated for impairment	\$ 1,126	\$ 15,890	\$ 577	\$ —	\$ —
Ending balance: collectively evaluated for impairment	\$ 91,094	\$ 332,586	\$ 159,164	\$ 5,955	\$ —
<i>(Dollars in thousands)</i>	Commercial and Industrial	Commercial Real Estate	Residential Real Estate	Consumer	Unalloca
2017					
Allowance for Loan Losses:					
Beginning balance	\$ 836	\$ 4,421	\$ 1,777	\$ 95	\$ 228
Charge-offs	—	(189	) (62	) (82) —
Recoveries	74	103	9	10	—
Provision	39	(268	) (68	) 88	476
Ending Balance	\$ 949	\$ 4,067	\$ 1,656	\$ 111	\$ 704
Ending balance: individually evaluated for impairment	\$ —	\$ 305	\$ 22	\$ —	\$ —
Ending balance: collectively evaluated for impairment	\$ 949	\$ 3,762	\$ 1,634	\$ 111	\$ 704

Loans Receivable:					
Ending Balance	\$ 99,337	\$ 290,970	\$ 162,925	\$ 6,165	\$ —
Ending balance: individually evaluated for impairment	\$ 1,203	\$ 11,673	\$ 1,050	\$ —	\$ —
Ending balance: collectively evaluated for impairment	\$ 98,134	\$ 279,297	\$ 161,875	\$ 6,165	\$ —

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FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

Of the \$1,163,000 in foreclosed assets held for resale at December 31, 2018, \$268,000 was secured by residential real estate, \$39,000 was secured by land, and \$856,000 was secured by commercial real estate. Of the \$1,071,000 in foreclosed assets held as the result of obtaining physical possession. Of the \$1,071,000 in foreclosed assets held for resale at December 31, 2017, \$15,000 was secured by residential real estate, \$50,000 was secured by land, and \$1,006,000 was secured by commercial real estate. Consumer mortgage loans secured by residential real estate for which the Bank has entered into formal foreclosure proceedings but for which physical possession of the property has yet to be obtained amounted to \$718,000 at December 31, 2018 and \$485,000 at December 31, 2017. These balances were not included in foreclosed assets held for resale at December 31, 2018 and 2017.

From time to time, the Bank may agree to modify the contractual terms of a borrower's loan. In certain circumstances, loan modifications represent a concession to a borrower experiencing financial difficulty, the modification of which is considered a troubled debt restructuring ("TDR").

The outstanding recorded investment of loans categorized as TDRs as of December 31, 2018 and 2017 was \$13,777,000 and \$9,109,000, respectively. The increase in TDRs at December 31, 2018 was attributable to a loan in the amount of \$4,296,000 to a real estate developer specializing in commercial real estate space that was modified as a TDR during the fourth quarter of 2018 to extend the maturity date. There were no unfunded commitments on TDRs at December 31, 2018 and 2017.

For the year ended December 31, 2018, twelve loans with a combined post modification balance of \$1,170,000 were classified as TDRs, as compared to the year ended December 31, 2017 when four loans with a combined post modification balance of \$1,170,000 were classified as TDRs. The loan modifications for the year ended December 31, 2018 consisted of one interest rate modification, three term modifications beyond the original stated term and eight payment modifications. The loan modifications for the year ended December 31, 2017 consisted of one term modification beyond the original stated term and three payment modifications.

The following table presents the outstanding recorded investment of TDRs at the dates indicated below.

(Dollars in thousands)

	December 31, 2018	December 31, 2017
Non-accrual TDRs	\$ 80	\$ 273
Accruing TDRs	13,697	8,836
Total	\$ 13,777	\$ 9,109

At December 31, 2018, nine Commercial Real Estate loans classified as TDRs with a combined investment of \$499,000 and one Commercial and Industrial loan classified as a TDR with a recorded investment of \$6,000 were not in compliance with the terms of their restructure, compared to December 31, 2017 when ten Commercial Real Estate loans classified as TDRs with a combined recorded investment of \$340,000 and one Residential Real Estate loan classified as a TDR with a recorded investment of \$60,000 were not in compliance with the terms of their restructure.

During the year ended December 31, 2018, five Commercial Real Estate loans totaling \$163,000 were modified as TDRs within the twelve months preceding December 31, 2018 had experienced payment defaults compared to the year ended December 31, 2017 when no loans that were modified as TDRs within the twelve months preceding December 31, 2017 had experienced payment defaults.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

The following table presents information regarding the loan modifications categorized as TDRs ended December 31, 2018 and 2017.

(Dollars in thousands)

	Year Ended December 31, 2018		
	Pre-Modification	Post-Modification	Year-End
Number of Contracts	Outstanding Recorded Investment	Outstanding Recorded Investment	Recorded Investment
Commercial and Industrial	3	\$ 751	\$ 771
Commercial Real Estate	8	4,833	4,688
Residential Real Estate	1	26	25
Total	12	\$ 5,610	\$ 5,484

(Dollars in thousands)

	Year Ended December 31, 2017		
	Pre-Modification	Post-Modification	Year-End
Number of Contracts	Outstanding Recorded Investment	Outstanding Recorded Investment	Recorded Investment
Commercial and Industrial	1	\$ 38	\$ 36
Commercial Real Estate	2	1,064	1,069
Residential Real Estate	1	32	60
Total	4	\$ 1,134	\$ 1,165

The following table provides detail regarding the types of loan modifications made for loans categorized as TDRs during the years ended December 31, 2018 and 2017 with the total number of each type of modification performed.

	Year Ended December 31, 2018				Year Ended December 31, 2017		
	Rate Modification	Term Modification	Payment Modification	Number Modified	Rate Modification	Term Modification	Payment Modification
Commercial and Industrial		—	3	3		—	1
Commercial Real Estate	1	2	5	8	—	1	1
Residential Real Estate		1	—	1			1
Total	1	3	8	12	—	1	3

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FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

The recorded investment, unpaid principal balance, and the related allowance of the Corporation are summarized below for the periods ended December 31, 2018 and 2017.

(Dollars in thousands)

	December 31, 2018			December 31, 2017		
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Recorded Investment	Unpaid Principal Balance	Related Allowance
With no related allowance recorded:						
Commercial and Industrial	\$1,126	\$1,126	\$ —	\$1,203	\$1,203	\$ —
Commercial Real Estate	15,807	20,107	—	9,199	11,383	—
Residential Real Estate	577	619	—	878	1,024	—
With an allowance recorded:						
Commercial and Industrial	—	—	—	—	—	—
Commercial Real Estate	83	83	1	2,474	3,889	—
Residential Real Estate	—	—	—	172	172	—
Total	\$17,593	\$21,935	\$ 1	\$13,926	\$17,671	\$ —
Total consists of:						
Commercial and Industrial	\$1,126	\$1,126	\$ —	\$1,203	\$1,203	\$ —
Commercial Real Estate	\$15,890	\$20,190	\$ 1	\$11,673	\$15,272	\$ —
Residential Real Estate	\$577	\$619	\$ —	\$1,050	\$1,196	\$ —

At December 31, 2018 and 2017, \$13,777,000 and \$9,109,000 of loans classified as TDRs were impaired loans with a total allocated allowance of \$1,000 and \$2,000, respectively. The recorded investment represents the loan balance reflected on the Consolidated Balance Sheets net of any charge-offs. The unpaid principal balance is equal to the gross amount due on the loan.

The average recorded investment and interest income recognized for the Corporation's impaired loans are summarized below for the years ended December 31, 2018 and 2017.

(Dollars in thousands)

	For the Year Ended December 31, 2018		For the Year Ended December 31, 2017	
	Average Recorded Investmen	Interest Recognized	Average Recorded Investmen	Interest Recognized
With no related allowance recorded:				
Commercial and Industrial	\$ 1,157	\$ 53	\$ 1,032	\$ 25
Commercial Real Estate	11,575	623	11,140	485
Residential Real Estate	794	11	789	7
With an allowance recorded:				
Commercial and Industrial	—	—	—	—
Commercial Real Estate	662	3	1,630	4
Residential Real Estate	138	—	215	—
Total	\$ 14,326	\$ 690	\$ 14,806	\$ 521
Total consists of:				
Commercial and Industrial	\$ 1,157	\$ 53	\$ 1,032	\$ 25
Commercial Real Estate	\$ 12,237	\$ 626	\$ 12,770	\$ 489
Residential Real Estate	\$ 932	\$ 11	\$ 1,004	\$ 7

Of the \$690,000 and \$521,000 in interest income recognized on impaired loans for the years ended December 31, 2018 and 2017, respectively, \$9,000 and \$20,000 was recognized with respect to non-accrued

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

Total non-performing assets (which includes loans receivable on non-accrual status, foreclosed resale and loans past-due 90 days or more and still accruing interest) as of December 31, 2018 and 2017 are as follows:

(Dollars in thousands)

	December 31, 2018	December 31, 2017
Commercial and Industrial	\$ —	\$ 798
Commercial Real Estate	3,402	3,302
Residential Real Estate	494	990
Total non-accrual loans	3,896	5,090
Foreclosed assets held for resale	1,163	1,071
Loans past-due 90 days or more and still accruing interest	228	70
Total non-performing assets	\$ 5,287	\$ 6,231

If interest on non-accrual loans had been accrued at original contract rates, interest income would have been \$784,000 in 2018 and \$328,000 in 2017.

The following tables present the classes of the loan portfolio summarized by the past-due status as of December 31, 2018 and 2017:

(Dollars in thousands)

90 Days
Or
Greater

	30-59 Days Past Due	60-89 Days Past Due	90 Days or Greater Past Due	Total Past Due	Current	Total Loans	Past Due and Still Accruing Interest
December 31, 2018:							
Commercial and Industrial	\$ 16	\$ 30	\$ —	\$ 46	\$ 92,174	\$ 92,220	\$ —
Commercial Real Estate	1,990	630	3,477	6,097	342,379	348,476	145
Residential Real Estate	1,519	228	456	2,203	157,538	159,741	83
Consumer	12	—	—	12	5,943	5,955	—
Total	\$ 3,537	\$ 888	\$ 3,933	\$ 8,358	\$ 598,034	\$ 606,392	\$ 228

(Dollars in thousands)

	30-59 Days Past Due	60-89 Days Past Due	90 Days or Greater Past Due	Total Past Due	Current	Total Loans	90 Days Or Greater Past Due and Still Accruing Interest
December 31, 2017:							
Commercial and Industrial	\$ 68	\$ 42	\$ —	\$ 110	\$ 99,227	\$ 99,337	\$ —
Commercial Real Estate	603	201	2,606	3,410	287,560	290,970	50
Residential Real Estate	1,952	484	584	3,020	159,905	162,925	20
Consumer	21	2	—	23	6,142	6,165	—
Total	\$ 2,644	\$ 729	\$ 3,190	\$ 6,563	\$ 552,834	\$ 559,397	\$ 70

At December 31, 2018, commitments to lend additional funds with respect to impaired loans consisted of one irrevocable letter of credit in the amount of \$1,249,000 that was associated with a loan to a developer of a residential sub-division. At December 31, 2017, commitments to lend additional funds with respect to impaired loans consisted of three irrevocable letters of credit totaling \$1,268,000. One irrevocable letter of credit in the amount of \$1,249,000 was associated with a loan to a developer of a residential sub-division. Two irrevocable letters of credit totaling \$19,000 were associated with a loan to a non-profit community recreation center.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements****NOTE 5 — PREMISES AND EQUIPMENT**

Premises and equipment at December 31, 2018 and 2017 is as follows:

(Dollars in thousands)

	Estimated Useful Life (in years)	2018	2017
Land	N/A	\$3,744	\$3,744
Buildings	5-40	20,639	20,562
Leasehold improvements	3-20	174	147
Equipment	3-25	8,283	8,331
		32,840	32,784
Less: Accumulated depreciation		12,894	12,161
Total		\$19,946	\$20,623

Depreciation amounted to \$1,141,000 for 2018 and \$1,197,000 for 2017.

The banking subsidiary previously leased land and a bank building in Stroudsburg, Pennsylvania that expired in the fourth quarter of 2017. At the time of lease expiration, the land and bank building were purchased for a total cost of \$2,384,000.

NOTE 6 — DEPOSITS

Major classifications of deposits at December 31, 2018 and 2017 consisted of:

(Dollars in thousands)

	2018	2017
Non-interest bearing demand	\$126,361	\$121,415
Interest bearing demand	180,328	265,379
Savings	167,572	183,724
Time certificates of deposits less than \$250,000	172,550	171,556
Time certificates of deposits \$250,000 or greater	23,597	34,933
Other time	1,145	1,139
Total deposits	\$671,553	\$778,146

The following is a schedule reflecting classification and remaining maturities of time deposits as of December 31, 2018:

(Dollars in thousands)

Year Ending	
2019	\$96,639
2020	41,642
2021	33,030
2022	18,822
2023	6,684
Thereafter	475
	\$197,292

At December 31, 2018, the largest two depositors had aggregate deposits of approximately \$43,107, as follows:

(Dollars in thousands)

School district	\$22,457
School district	20,650
Total	\$43,107

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements****NOTE 7 — SHORT-TERM BORROWINGS**

Short-term borrowings include federal funds purchased, securities sold under agreements to repurchase, Federal Reserve Bank Discount Window, and Federal Home Loan Bank (“FHLB”) advances, which generally represent longer-term than 30-day borrowings.

Short-term borrowings and weighted-average interest rates at and for the years ended December 31, 2018 and 2017 are as follows:

(Dollars in thousands)

	2018		2017		
	Amount	Average Rate	Amount	Average Rate	
Federal funds purchased	\$—	2.19 %	\$—	1.82 %	
Securities sold under agreements to repurchase	12,957	0.56 %	22,844	0.41 %	
Federal Discount Window	—	2.19 %	—	1.71 %	
Federal Home Loan Bank	161,488	2.28 %	3,452	1.16 %	
	\$174,445	2.04 %	\$26,296	0.97 %	

At December 31, 2018, the maximum borrowing capacity of federal funds purchased and the Federal Reserve Bank Discount Window was \$15,000,000 and \$4,741,000, respectively. Please refer to Note 8 – Long-Term Borrowings for the Corporation’s maximum borrowing capacity at FHLB.

Securities Sold Under Agreements to Repurchase (“Repurchase Agreements”)

The Corporation enters into agreements under which it sells securities subject to an obligation to repurchase the same or similar securities. Under these arrangements, the Corporation may transfer legal control

but still retain effective control through an agreement that both entitles and obligates the Corporation to repurchase the assets.

As a result, these repurchase agreements are accounted for as collateralized financing agreements (i.e., secured borrowings) and not as a sale and subsequent repurchase of securities. The obligation to repurchase is reflected as a liability on the Corporation's Consolidated Balance Sheets, while the securities underlying the repurchase agreements remain in the respective investment securities asset accounts. In other words, the Corporation does not offset or net the investment securities assets with the repurchase agreement liabilities. If the Corporation does not enter into reverse repurchase agreements, there is no such offsetting to the repurchase agreements.

The right of setoff for a repurchase agreement resembles a secured borrowing, whereby the collateral is used to settle the fair value of the repurchase agreement should the Corporation be in default (e.g., an interest payment to the counterparty). The collateral is held by a correspondent bank in the Corporation's custodial account. The counterparty has the right to sell or repledge the investment securities.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

The following table presents the short-term borrowings subject to an enforceable master netting repurchase agreements as of December 31, 2018 and 2017.

(Dollars in thousands)

	Gross Amounts of Recognized Liabilities	Gross Amounts Offset in the Consolidated Balance Sheet	Net Amounts of Liabilities Presented in the Consolidated Balance Sheet	Financial Instruments	Cash Collateral Pledge
December 31, 2018					
Repurchase agreements (a)	\$ 12,957	\$	\$ 12,957	\$ (12,957)	\$
December 31, 2017					
Repurchase agreements (a)	\$ 22,844	\$	\$ 22,844	\$ (22,844)	\$

(a) As of December 31, 2018 and 2017, the fair value of securities pledged in connection with repurchase agreements was \$16,970,000 and \$26,023,000, respectively.

The following table presents the remaining contractual maturity of the master netting arrangements as of December 31, 2018.

(Dollars in thousands)

Remaining Contractual Maturity of the Agreements			
Overnight	Up to 30 days	31 to 90 days	Greater than 90 days
and	Up to	30	Greater than
	to	-90	

	Continuous	30 days	Days	90 Days	Total
Repurchase agreements and repurchase-to-maturity transactions:					
U.S. Treasury and/or agency securities	\$12,957	\$	\$	\$	\$12,957
Total	\$12,957	\$	\$	\$	\$12,957

NOTE 8 — LONG-TERM BORROWINGS

Long-term borrowings are comprised of advances from FHLB. Under terms of a blanket agreement for the FHLB loans is certain qualifying assets of the Corporation's banking subsidiary. The qualifying assets include real estate mortgages and certain investment securities.

A schedule of long-term borrowings by maturity as of December 31, 2018 and 2017 follows:

(Dollars in thousands)

	2018	2017
Due 2018, 1.27% to 4.86%	\$—	\$23,000
Due 2019, 1.79% to 2.11%	20,000	20,000
Due 2020, 1.62% to 1.95%	10,000	10,000
Due 2021, 1.42% to 1.58%	10,000	10,000
Due 2023, 2.96%	3,000	—
Due 2028, 5.14%	2,000	2,000
	\$45,000	\$65,000

The Corporation's long-term borrowings consist of notes at fixed interest rates. Upon any default of a master agreement, FHLB may declare all indebtedness of the Corporation immediately due. FHLB shall not be required to fund advances under any outstanding commitments. At December 31, 2018, the Corporation's maximum borrowing capacity at FHLB, which takes into account FHLB long-term and FHLB short-term borrowings, was \$313,923,000.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements****NOTE 9 — INCOME TAXES**

The current and deferred components of the income tax expense consisted of the following:

(Dollars in thousands)

	2018	2017
Federal		
Current	\$(107)	\$1,309
Deferred	566	146
Income tax expense	\$459	\$1,455

The following is a reconciliation between the income tax expense and the amount of income tax that have been provided at the statutory rate of 21% in 2018 and 34% in 2017:

(Dollars in thousands)

	2018		2017	
	Amount	Rate	Amount	Rate
Federal income tax at statutory rate	\$2,031	21.0 %	\$3,435	34.0 %
Tax-exempt income	(1,043)	(10.8)	(1,897)	(18.8)
Low-income housing credits	(405)	(4.2)	(323)	(3.2)
Bank owned life insurance income	(128)	(1.3)	(216)	(2.1)
Effect of tax rate change	—	—	379	3.8
Other	4	—	77	0.7
Income tax expense and rate	\$459	4.7 %	\$1,455	14.4 %

The components of the net deferred tax asset at December 31, 2018 and 2017 are as follows:

(Dollars in thousands)

	2018	2017
Deferred Tax Assets:		
Allowance for loan losses	\$1,417	\$1,572
Provision for unfunded commitments	25	24
Deferred compensation	241	316
Contributions	1	8
Leases	53	66
Limited partnership investments	66	57
Alternative minimum tax credits	7	379
Net unrealized investment securities losses	449	—
Impairment loss on investment securities	4	4
Writedowns on OREO properties	34	5
Capital and net operating loss carry forwards	—	25
Total		2,297
2,456		
Deferred Tax Liabilities:		
Net unrealized investment securities gains	—	670
Loan fees and costs	183	162
Accumulated depreciation	311	332
Accretion	35	77
Mortgage servicing rights	42	38
Intangibles	257	241
Total	828	1,520
Net Deferred Tax Asset	\$1,469	\$936

FIRST KEYSTONE CORPORATION AND SUBSIDIARY

Notes to Consolidated Financial Statements

A valuation allowance for deferred tax assets was recorded at December 31, 2018 and 2017 in the amount of \$70,000 and \$16,000, respectively. The valuation allowance relates to state net operating loss carryforwards, which realizability is uncertain. At December 31, 2018 and 2017, the Corporation had state net operating loss carryforwards, net of a valuation allowance, of \$0 and \$320,000, respectively, which are available to offset future state taxable income, and expire at various dates through 2038.

In 2017, the Corporation recognized a reduction in the carrying value of the net deferred tax assets as a result of the December 2017 enactment of a reduction in the federal corporate income tax rate effective January 1, 2018, from the 34% marginal tax rate in effect throughout 2017. On December 22, 2017, the AICPA staff issued Staff Accounting Bulletin No. 118 (“SAB 118”) which provides guidance on accounting for the effects of the Tax Cuts and Jobs Act. SAB 118 provides a measurement period that should not exceed one year from the Tax Cuts and Jobs Act’s enactment date for companies to complete the accounting for the effects of the Tax Cuts and Jobs Act on their financial statements. The Corporation’s financial results reflect the income tax effects of the Tax Cuts and Jobs Act, which the accounting under ASC Topic 740 is complete.

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Based on the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are expected to be realized and tax planning strategies, management believes it is more likely than not that the Corporation will realize the benefits of these deferred tax assets, net of any valuation allowance at December 31, 2018.

The Corporation did not have any uncertain tax positions at December 31, 2018 and 2017.

The Corporation and its subsidiary file a consolidated federal income tax return. The Corporation and its subsidiary are subject to examination by Federal or State taxing authorities for the years before 2015.

NOTE 10 — EMPLOYEE BENEFIT PLANS AND DEFERRED COMPENSATION AGREEMENTS

The Corporation maintains a 401k Plan which has a combined tax qualified savings feature and feature for the benefit of its employees. Effective January 1, 2014, the plan became a Safe Harbor the savings feature, the Corporation makes safe harbor matching contributions of 100% of the first 2% of compensation an employee contributes to the Plan and 50% of the next 2% of compensation an employee contributes to the Plan. The safe harbor matching contributions amounted to \$296,000 and \$275,000 in 2018 and 2017, respectively. Under the profit sharing feature, contributions, at the discretion of the Board of Directors, are funded currently and amounted to \$304,000 and \$215,000 in 2018 and 2017, respectively.

The Bank also has non-qualified deferred compensation agreements with one of its officers and two other officers. These agreements are essentially unsecured promises by the Bank to make monthly payments to the officers over a twenty year period. Payments begin based upon specific criteria — generally, when the officer retires. To account for the cost of payments yet to be made in the future, the Bank recognizes an expense in years prior to when payments begin based on the present value of those future payments. The liability for these deferred compensation agreements, reported in other liabilities on the consolidated balance sheets, as of December 31, 2018 and 2017, was \$1,109,000 and \$1,464,000, respectively. The expense for these agreements, reported in salaries and employee benefits on the consolidated statements of income, amounted to \$(229,000) and \$117,000 in 2018 and 2017, respectively. In 2018, there was a \$(30,000) expense reversal associated with the resignation of a previously covered officer.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements****NOTE 11 — COMMITMENTS AND CONTINGENCIES**

The Corporation's banking subsidiary currently leases three branch banking facilities, one loan and one parcel of land under operating leases. Rent expense for the years ended December 31, 2019 was \$170,000 and \$155,000, respectively. Minimum rental payments required under these operating leases for the years ended December 31, 2019 - \$123,000, 2020 - \$72,000, 2021 - \$65,000, 2022 - \$68,000, 2023 - \$68,000 and thereafter

In the normal course of business, there are various pending legal actions and proceedings that are reflected in the consolidated financial statements. Management does not believe the outcome of these actions and proceedings will have a material effect on the consolidated financial position of the Corporation.

NOTE 12 — RELATED PARTY TRANSACTIONS

Certain directors, executive officers and immediate family members of First Keystone Corporation and its banking subsidiary, and companies in which they are principal owners (i.e., at least 10% ownership), were related parties of the Corporation at December 31, 2018 and 2017. The loans do not involve more than the normal risk of collectability nor present other unfavorable features.

A summary of the activity on the related party loans consists of the following:

(Dollars in thousands)

	2018	2017
Balance at January 1	\$10,997	\$2,159
Additions	13,642	15,574
Deductions	(4,691)	(6,736)

Balance at December 31 \$19,948 \$10,997

The summary of activity on the related party loans represent funds drawn and outstanding at the consolidated financial statements. Commitments by the Bank to related parties on lines of credit for 2018 and 2017, presented an additional off-balance sheet risk to the extent of undisbursed amounts of \$4,958,000 and \$6,214,000 respectively, on the above loans.

Deposits from certain officers, directors and immediate family members and/or their related companies to the Bank amounted to \$18,696,000 and \$15,180,000 at December 31, 2018 and 2017, respectively.

NOTE 13 — REGULATORY MATTERS

Under Pennsylvania banking law, the Bank is subject to certain restrictions on the amount of dividends that may declare without prior regulatory approval. At December 31, 2018, \$8,776,000 of retained earnings were available for dividends without prior regulatory approval, subject to the regulatory capital requirements discussed below. Regulations also limit the amount of loans and advances from the Bank to the 10% of consolidated net assets.

The Corporation is subject to various regulatory capital requirements administered by the federal banking agencies. Failure to meet minimum capital requirements can initiate certain mandatory — and possibly discretionary — actions by regulators that, if undertaken, could have a direct material effect on the Corporation's consolidated financial statements. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, the Corporation must meet specific capital guidelines that involve quantitative measures of the Corporation's assets, liabilities, and certain off-balance sheet items as calculated under regulatory accounting practices. The Corporation's capital amounts and classification are also subject to qualitative judgments by the regulators about components, risk weightings and other factors. Management believes, as of December 31, 2018 and 2017, that the Corporation and the Bank met all capital adequacy requirements to which they were

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

On July 2, 2013, the Board of Governors of the Federal Reserve System finalized its rule implementing the Basel III regulatory capital framework, which the FDIC adopted on July 9, 2013. Under the rule, requirements increased both the quantity and quality of capital held by banking organizations. Under the Basel III framework, the rule included a new minimum ratio of common equity tier 1 capital to risk-weighted assets of 4.5 percent, and a common equity tier 1 conservation buffer of 2.5 percent of risk-weighted assets. The rule applies to all supervised financial institutions, which is to be phased in over a three year period beginning on January 1, 2016, with the full 2.5 percent required as of January 1, 2019. The rule also raised the minimum ratio of tier 1 capital to risk-weighted assets from 4 percent to 6 percent, and includes a minimum leverage ratio of 3 percent for all banking organizations.

Quantitative measures established by regulation to ensure capital adequacy require the Bank to maintain minimum amounts and ratios (set forth in the table below) of total capital, tier I capital and common equity capital (as defined in the regulations) to risk weighted assets (as defined), and of tier I capital (as defined) to average assets (as defined).

As of December 31, 2018 the most recent notification from the Federal Deposit Insurance Corporation categorized the Bank as Well Capitalized under the regulatory framework for prompt corrective action. If the Bank is categorized as Well Capitalized, the Bank must maintain minimum total risk-based, tier I risk-based, common equity tier 1 risk-based and tier I leverage ratios as set forth in the table. There are no conditions or covenants in the notification that management believes have changed the Bank's category.

(Dollars in thousands)

	Actual		For Capital Adequacy Purposes		Minimum Capital Adequacy with Capital Buffer		Tier I Capital to Average Assets
	Amount	Ratio	Amount	Ratio	Amount	Ratio	
As of December 31, 2018:							
Total Capital (to Risk-Weighted Assets)	\$96,065	13.87%	\$55,395	8.00%	\$68,378	9.88%	\$
	\$89,203	12.88%	\$41,546	6.00%	\$54,529	7.88%	\$

Tier I Capital (to Risk-Weighted Assets)							
Common Equity Tier 1 Capital (to Risk-Weighted Assets)	\$89,203	12.88 %	\$31,160	4.50 %	\$44,143	6.38 %	\$
Tier I Capital (to Average Assets)	\$89,203	9.01 %	\$39,616	4.00 %	\$39,616	4.00 %	\$

(Dollars in thousands)

	Actual		For Capital Adequacy Purposes		Minimum Capital Adequacy with Capital Buffer		T
	Amount	Ratio	Amount	Ratio	Amount	Ratio	C
							U
							C
							A
							P
							A
As of December 31, 2017:							
Total Capital (to Risk-Weighted Assets)	\$93,566	14.21 %	\$52,676	8.00 %	\$60,907	9.25 %	\$
Tier I Capital (to Risk-Weighted Assets)	\$85,963	13.06 %	\$39,507	6.00 %	\$47,738	7.25 %	\$
Common Equity Tier 1 Capital (to Risk-Weighted Assets)	\$85,963	13.06 %	\$29,630	4.50 %	\$37,861	5.75 %	\$
Tier I Capital (to Average Assets)	\$85,963	8.84 %	\$38,901	4.00 %	\$38,901	4.00 %	\$

FIRST KEYSTONE CORPORATION AND SUBSIDIARY

Notes to Consolidated Financial Statements

The capital conservation buffer phase-in began January 1, 2016. The capital conservation buffer was 1.250% in 2017 to 1.875% in 2018.

The Corporation's capital ratios are not materially different from those of the Bank.

NOTE 14 — FINANCIAL INSTRUMENTS WITH OFF-BALANCE SHEET RISK AND CONCENTRATIONS OF CREDIT RISK

Financial Instruments with 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 financing needs of its customers. These financial instruments include commitments to extend credit and standby letters of credit. Those instruments involve, to varying degrees, elements of credit and liquidity risk in excess of the amount recognized in the Consolidated Balance Sheets. The contract or notional amount of those instruments reflect the extent of involvement the Corporation has in particular classes of financial instruments. The Corporation does not engage in trading activities with respect to any of its financial instruments with off-balance sheet risk.

The Corporation's exposure to credit loss in the event of non-performance by the other party to the instrument for commitments to extend credit and standby letters of credit is represented by the notional amount of those instruments.

The Corporation uses the same credit policies in making commitments and conditional obligations as it uses for on-balance sheet instruments.

The Corporation may require collateral or other security to support financial instruments with credit risk.

The contract or notional amounts at December 31, 2018 and 2017 were as follows:

(Dollars in thousands)

	2018	2017
Financial instruments whose contract amounts represent credit risk:		
Commitments to extend credit	\$107,126	\$90,373
Financial standby letters of credit	\$331	\$450
Performance standby letters of credit	\$3,107	\$2,901

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of the conditions established in the contract. Commitments generally have fixed expiration dates or other termination clauses that may require payment of a fee. Since some of the commitments may expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. The Corporation evaluates each customer's creditworthiness on a case-by-case basis. The amount of collateral obtained, if necessary by the Corporation upon extension of credit, is based on management's credit evaluation of the borrower. Collateral held varies but may include accounts receivable, inventory, property, plant and equipment, owner-occupied income-producing commercial properties, and residential real estate.

Standby letters of credit are conditional commitments issued by the Corporation to guarantee the payment of a party when a customer either fails to repay an obligation or fails to perform some non-financial obligation. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loans to customers. The Corporation may hold collateral (similar to the items held as collateral for commitments to extend credit) to support standby letters of credit for which collateral is deemed necessary.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY

Notes to Consolidated Financial Statements

Financial Instruments with Concentrations of Credit Risk

The Corporation originates primarily commercial and residential real estate loans to customers in Pennsylvania. The ability of the majority of the Corporation's customers to honor their contractual obligations is dependent on the economy and real estate market in this area. At December 31, 2018, the Corporation had \$508,217,000 in loans secured by real estate, which represented 83.8% of total loans. The real estate loan portfolio is largely secured by lessors of residential buildings and dwellings, lessors of non-residential buildings, and lessors of hotels/motels. As of December 31, 2018 and 2017, in the Corporation's opinion, there were no concentrations exceeding 10% of total loans with regard to loans to borrowers who were engaged in similar activities that were similarly impacted by economic or other conditions.

As all financial instruments are subject to some level of credit risk, the Corporation requires collateral and guarantees for all loans. Collateral may include, but is not limited to property, plant, and equipment and/or residential real estate property, land, and pledge of securities. In the event of a borrower's default, the collateral supporting the loan may be seized in order to recoup losses associated with the loan. The Corporation also establishes an allowance for loan losses that constitutes the amount available to absorb losses in the loan portfolio that may exist due to deficiencies in collateral values.

NOTE 15 — STOCKHOLDERS' EQUITY

The Corporation also offers to its shareholders a Dividend Reinvestment and Stock Purchase Plan. Participation in this plan by shareholders began in 2001. The plan provides First Keystone shareholders a convenient and economical way to purchase additional shares of common stock by reinvesting dividends. A shareholder may elect full dividend reinvestment or partial dividend reinvestment provided at least 25 shares are purchased under the plan. In addition, plan participants may make additional voluntary cash purchases of common stock under the plan of not less than \$100 per calendar quarter or more than \$2,500 in any calendar quarter.

Shares transferred under this Dividend Reinvestment and Stock Purchase Plan were 45,371 in 2018 and 45,371 in 2017. Remaining shares authorized in the plan were 577,048 as of December 31, 2018.

Shares of First Keystone common stock are purchased for the plan either in the open market by broker on behalf of the plan, directly from First Keystone as original issue shares, or through net share transactions. A combination of the previous methods could also occur.

NOTE 16 — STOCK COMPENSATION PLAN

On February 10, 1998, the Board of Directors adopted the 1998 Employee Stock Option Plan and reserved 100,000 shares of common stock for issuance under the plan for certain employees of the Company. Adjustments for the effects of stock dividends, options exercised and options forfeited, there are 100,000 options issued and outstanding. Under the Plan, options are granted at fair market value and the vesting period during which any option granted may be exercised may not commence before six months or continue to the expiration of ten years after the option is awarded. Upon exercise of the stock options, shares of common stock are issued from Treasury Stock. The Plan expired in 2008, and therefore, no stock options were issued under the Plan.

The fair value of stock options issued to employees is measured on the date of the grant and is recognized as compensation expense over the requisite service period. Expected volatility and dividend yield are based on historical stock prices and dividend amounts over past time periods equal in length to the life of the options. The risk-free interest rate is determined using the U.S. Treasury yield curve in effect at the date of the grant. The expected life of the options is calculated using the average term of the vesting period and the market price of the common stock.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

Information about stock options outstanding at December 31, 2018 and 2017, is summarized as follows:

	2018		2017	
	Stock	Weighted	Stock	Weighted
	Options	Average	Options	Average
		Exercise		Exercise
		Price		Price
Balance at January 1	—	—	1,500	\$ 16.75
Exercised	—	—	(1,500)	16.75
Forfeited/Expired	—	—	—	—
Balance at December 31	—	—	—	—
Exercisable at December 31	—	—	—	—

Under the terms of the Plan, the stock options including amendments as to price and terms were adjusted for the 2006 stock dividend in 2006.

The total intrinsic value of the options exercised during the years ended December 31, 2018 and 2017 was \$0 and \$18,000, respectively. Cash received from stock options exercised for the years ended December 31, 2018 and 2017 was \$0 and \$25,000, respectively.

NOTE 17 — FAIR VALUE MEASUREMENTS

Fair value measurement and disclosure guidance defines fair value as the price that would be received from the sale of an asset or transfer of the liability in an orderly transaction (that is, not a forced liquidation or distress sale) between market participants at the measurement date under current market conditions. This guidance provides information on determining when the volume and level of activity for the asset or liability has significantly decreased. The guidance also includes information on identifying circumstances when a transaction is considered orderly.

Fair value measurement and disclosure guidance provides a list of factors that a reporting entity to determine whether there has been a significant decrease in the volume and level of activity for liability in relation to normal market activity for the asset or liability. When the reporting entity has been a significant decrease in the volume and level of activity for the asset or liability, further information from that market is needed and significant adjustments to the related prices may be estimate fair value in accordance with the fair value measurement and disclosure guidance.

This guidance clarifies that when there has been a significant decrease in the volume and level of asset or liability, some transactions may not be orderly. In those situations, the entity must evaluate the evidence to determine whether the transaction is orderly. The guidance provides a list of circumstances that may indicate that a transaction is not orderly. A transaction price that is not associated with an orderly transaction is given little, if any, weight when estimating fair value.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Inputs to valuation techniques are the assumptions that market participants would use in pricing the asset or liability. Inputs may be observable, meaning those that reflect the assumptions market participants would use in pricing the asset or liability developed based on market data obtained from independent sources, or unobservable, meaning those that reflect the reporting entity's own belief about the assumptions market participants would use in pricing the asset or liability based upon the best information available in the circumstances. Fair value measurement and disclosure guidance establishes a fair value hierarchy for valuation inputs that gives the highest priority to the most active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The hierarchy is as follows:

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

Level 1 Inputs: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2 Inputs: Quoted prices in markets that are not active, or inputs that are observable either directly or indirectly, for substantially the full term of the asset or liability;

Level 3 Inputs: Prices or valuation techniques that require inputs that are both significant to the measurement and unobservable (i.e., supported by little or no market activity).

A description of the valuation methodologies used for instruments measured at fair value, as well as the classification of such instruments pursuant to the valuation hierarchy, is set forth as follows.

Financial Assets Measured at Fair Value on a Recurring Basis

At December 31, 2018 and 2017, securities measured at fair value on a recurring basis and the valuation methods used are as follows:

(Dollars in thousands)

December 31, 2018	Level 1	Level 2	Level 3
Available-for-Sale Debt Securities:			
U.S. Treasury securities	\$—	\$5,295	\$—
Obligations of U.S. Government Corporations and Agencies:			
Mortgaged-backed	—	64,876	—
Other	—	18,243	—
Other mortgage backed debt securities	—	4,749	—
Obligations of state and political subdivisions	—	182,278	—

Asset backed securities	—	14,370	—
Corporate debt securities	—	26,243	—
Total debt securities available-for-sale	—	316,054	—
Marketable equity securities	1,560	—	—
Total	\$1,560	\$316,054	\$ —

(Dollars in thousands)

December 31, 2017	Level 1	Level 2	Level 3
Available-for-Sale Debt Securities:			
U.S. Treasury securities	\$—	\$—	\$ —
Obligations of U.S. Government Corporations and Agencies:			
Mortgaged-backed	—	81,860	—
Other	—	22,233	—
Other mortgage backed debt securities	—	—	—
Obligations of state and political subdivisions	—	215,522	—
Asset backed securities	—	—	—
Corporate debt securities	—	28,971	—
Total debt securities available-for-sale	—	348,586	—
Marketable equity securities	1,632	—	—
Total	\$1,632	\$348,586	\$ —

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FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

The estimated fair values of equity securities classified as Level 1 are derived from quoted market prices in active markets; these assets consist mainly of stocks held in other banks. The estimated fair values of equity securities classified as Level 2 are obtained from nationally-recognized third-party pricing agencies. The estimated fair values are derived primarily from cash flow models, which include assumptions for interest rates, credit losses, and prepayment speeds. The significant inputs utilized in the cash flow models are based on data obtained from sources independent of the Corporation (observable inputs), and are therefore classified as Level 2 within the fair value hierarchy. The Corporation does not have any Level 3 inputs for securities. There were no transfers between Level 1 and Level 2 during 2018 and 2017.

Financial Assets Measured at Fair Value on a Nonrecurring Basis

At December 31, 2018 and 2017, impaired loans measured at fair value on a nonrecurring basis and the valuation methods used are as follows:

(Dollars in thousands)

	Level 1	Level 2	Level 3	Total
Assets at December 31, 2018				
Impaired loans:				
Commercial Real Estate	\$ —	\$ —	\$6,400	\$6,400
Residential Real Estate	—	—	81	81
Total impaired loans	\$ —	\$ —	\$6,481	\$6,481

(Dollars in thousands)

	Level 1	Level 2	Level 3	Total
Assets at December 31, 2017				
Impaired loans:				
Commercial Real Estate	\$ —	\$ —	\$5,498	\$5,498
Residential Real Estate	—	—	254	254
Total impaired loans	\$ —	\$ —	\$5,752	\$5,752

The Bank's impaired loan valuation procedure for any loans greater than \$250,000 requires an appraisal to be obtained and reviewed annually at year end. A quarterly collateral evaluation is performed which includes an onsite visit, property pictures and discussions with realtors and other similar business professionals to determine current values. For impaired loans less than \$250,000 upon classification and annually at year end, the Bank completes a Certificate of Inspection, which includes an onsite inspection, insured values, tax assessments, recent sales comparisons and a review of the previous evaluations. These assets are included as Level 3 fair value measurements, based upon the lowest level that is significant to the fair value measurements. The fair value of the impaired loan balances less the valuation allowance and/or charge-offs. There were no transfers between valuation levels in 2018 and 2017.

Nonfinancial Assets Measured at Fair Value on a Nonrecurring Basis

At December 31, 2018 and 2017, foreclosed assets held for resale measured at fair value on a nonrecurring basis and the valuation methods used are as follows:

(Dollars in thousands)

	Level 1	Level 2	Level 3	Total
Assets at December 31, 2018				
Foreclosed assets held for resale:				
Commercial Real Estate	\$ —	\$ —	\$ 856	\$ 856
Residential Real Estate	—	—	—	—
Total foreclosed assets held for resale	\$ —	\$ —	\$ 856	\$ 856

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

(Dollars in thousands)

	Level 1	Level 2	Level 3	Total
Assets at December 31, 2017				
Foreclosed assets held for resale:				
Commercial Real Estate	\$ —	\$ —	\$ 81	\$ 81
Residential Real Estate	—	—	13	13
Total foreclosed assets held for resale	\$ —	\$ —	\$ 94	\$ 94

The Bank's foreclosed asset valuation procedure requires an appraisal, which considers the sale properties in the proximate vicinity, to be completed periodically with the exception of those cases where the Bank has obtained a sales agreement. These assets are included as Level 3 fair values, based upon the lowest level that is significant to the fair value measurements. There were no transfers between valuation levels during 2018 and 2017.

The following table presents additional quantitative information about assets measured at fair value on a nonrecurring basis and for which the Bank has utilized Level 3 inputs to determine the fair value.

(Dollars in thousands)

	Quantitative Information about Level 3 Fair Value Measurements			
	Fair Value Estimate	Valuation Technique	Unobservable Input	Range of Inputs
December 31, 2018				
Impaired loans	\$3,346	Appraisal of collateral^{1,3}	Appraisal adjustments²	(15%) - (82%)
Impaired loans	\$3,135	Discounted cash flow	Discount rate	(6%) - (16%)
Foreclosed assets held for resale	\$856	Appraisal of collateral^{1,3}	Appraisal adjustments²	(16%) - (35%)
December 31, 2017				
Impaired loans	\$2,495	Appraisal of collateral ^{1,3}	Appraisal adjustments ²	(7%) - (35%)
Impaired loans	\$3,257	Discounted cash flow	Discount rate	(7%) - (16%)
Foreclosed assets held for resale	\$94	Appraisal of collateral ^{1,3}	Appraisal adjustments ²	(35%) - (37%)

¹Fair value is generally determined through independent appraisals of the underlying collateral, Bank regulators.

²Appraisals may be adjusted downward by management for qualitative factors such as economic estimated liquidation expenses. The typical range of appraisal adjustments are presented as a percentage of appraisal value.

³Includes qualitative adjustments by management and estimated liquidation expenses.

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FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements**

Fair Value of Financial Instruments

The estimated fair values, and related carrying amounts, of the Corporation's financial instruments recorded at fair value are as follows:

(Dollars in thousands)	Carrying Amount	Fair Value Measurements 31, 2018		
		Level 1	Level 2	Level 3
FINANCIAL ASSETS:				
Cash and due from banks	\$9,822	\$9,822	\$—	\$—
Interest-bearing deposits in other banks	1,128	—	1,128	—
Time deposits with other banks	1,482	—	1,469	—
Restricted investment in bank stocks	8,681	—	8,681	—
Net loans	599,647	—	—	599,647
Mortgage servicing rights	316	—	—	316
Accrued interest receivable	4,041	—	4,041	—
FINANCIAL LIABILITIES:				
Demand, savings and other deposits	474,261	—	474,261	—
Time deposits	197,292	—	195,136	—
Short-term borrowings	174,445	—	174,491	—
Long-term borrowings	45,000	—	45,077	—
Accrued interest payable	785	—	785	—
OFF-BALANCE SHEET FINANCIAL INSTRUMENTS	—	—	—	—
(Dollars in thousands)	Carrying Amount	Fair Value Measurements 31, 2017		
		Level 1	Level 2	Level 3
FINANCIAL ASSETS:				
Cash and due from banks	\$7,913	\$7,913	\$—	\$—
Interest-bearing deposits in other banks	826	—	826	—
Time deposits with other banks	1,482	—	1,482	—

Restricted investment in bank stocks	4,058	—	4,058	—
Net loans	551,910	—	—	550
Mortgage servicing rights	379	—	—	379
Accrued interest receivable	4,237	—	4,237	—
FINANCIAL LIABILITIES:				
Demand, savings and other deposits	570,518	—	570,518	—
Time deposits	207,628	—	206,299	—
Short-term borrowings	26,296	—	26,296	—
Long-term borrowings	65,000	—	65,336	—
Accrued interest payable	490	—	490	—
OFF-BALANCE SHEET FINANCIAL INSTRUMENTS				
	—	—	—	—

FIRST KEYSTONE CORPORATION AND SUBSIDIARY

Notes to Consolidated Financial Statements

NOTE 18 — REVENUE RECOGNITION

As disclosed in Note 1, as of January 1, 2018, the Corporation adopted ASU 2014-09 *Revenue from Contracts with Customers - Topic 606* and all subsequent ASUs that modified ASC 606. The Corporation applies 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 in prior periods, however, additional disclosures have been added in accordance with the ASU.

The main types of revenue contracts included in non-interest income within the Consolidated Statements of Income which are subject to ASC 606 are as follows:

Deposits related fees and service charges

Service charges and fees on deposits, which are included as liabilities in the consolidated balance sheet, consist of fees related to monthly fees for various retail and business checking accounts, automated teller machine (“ATM”) fees (charged for withdrawals by our deposit customers from other bank ATMs) and non-sufficient funds (“NSF”) fees (which are charged when customers overdraw their accounts beyond available funds). These liabilities are considered to have one-day terms and therefore related fees are recognized in income when the services are provided to the customers. The Corporation elected to adopt practical expedient for the incremental costs of obtaining deposit contracts. As such, any costs associated with acquiring these contracts, except for certificate of deposits (“CDs”) with maturities in excess of one year, are recognized as an expense within the non-interest expense in the consolidated statements of income when incurred as the remaining period of the deposit liabilities that otherwise would have been recognized is one year or less.

Wealth/Asset/Trust Management Fees

Wealth management services are delivered to individuals, corporations and retirement funds located within our geographic markets. The Trust Department of the Corporation conducts the wealth management

operations, which provides a broad range of personal and corporate fiduciary services, including administration of estates.

Assets held in a fiduciary capacity by the Trust Department are not assets of the Corporation and are not included in our Consolidated Financial Statements. Wealth management fees, which are contracted with each customer, are earned each month and recognized on a cash basis based on average fair value of trust assets under management. The services provided under such a contract are considered a single obligation under ASC 606 because they embody a series of distinct goods or services that are substantially the same and have the same pattern of transfer to the customer. Wealth management fees charged by the Trust Department follow a tiered structure based on the type and size of the assets under management. Wealth management fees are included within non-interest income in the consolidated statements of income. As of December 31, 2018 and December 31, 2017, the fair value of trust assets under management was \$111,130,000 and \$111,130,000, respectively. The costs of acquiring asset management customers are incrementally recognized within the non-interest expense of the consolidated statements of income.

Interchange Fees and Surcharges

Interchange fees are related to the acceptance and settlement of debit card transactions, both point-of-sale and ATM, to cover operating costs and risks associated with the approval and settlement of the transactions. Interchange fees vary by type of transaction and each merchant sector. Net income recognized from interchange fees is included in non-interest income on the consolidated statements of income. A surcharge is assessed on the Corporation's ATMs by non-customers. All interchange fees and surcharges are recognized on a daily basis for the prior business day's transactions. All expenses related to the settlement of debit card transactions (both point-of-sale and ATM) are recognized on a monthly basis and included in non-interest expense on the consolidated statements of income.

FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements****NOTE 19 — PARENT COMPANY FINANCIAL INFORMATION**

Condensed financial information for First Keystone Corporation (parent company only) was as

BALANCE SHEETS (Dollars in thousands)	December 31,	
	2018	2017
ASSETS		
Cash	\$9,988	\$8,984
Investment in banking subsidiary	105,755	106,64
Marketable equity securities	1,560	1,632
Prepaid expenses and other assets	232	30
TOTAL ASSETS	\$117,535	\$117,29
LIABILITIES		
Advances from banking subsidiary	\$536	\$325
Accrued expenses and other liabilities	243	249
TOTAL LIABILITIES	779	574
STOCKHOLDERS' EQUITY		
Common stock	11,993	11,902
Surplus	37,255	36,193
Retained earnings	75,798	72,507
Accumulated other comprehensive (loss) income	(2,581)	1,826
Treasury stock, at cost	(5,709)	(5,709
TOTAL STOCKHOLDERS' EQUITY	116,756	116,71
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$117,535	\$117,29

STATEMENTS OF INCOME

(Dollars in thousands)

INCOME

Dividends from subsidiary bank

Years E
Decem
2018

\$6,102

Net securities (losses) gains	(72)
Other income	76
TOTAL INCOME	6,106
OPERATING EXPENSES	176
	5,930
INCOME TAX BENEFIT	(41)
	5,971
EQUITY IN UNDISTRIBUTED EARNINGS OF BANKING SUBSIDIARY	3,240
NET INCOME	\$9,211

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FIRST KEYSTONE CORPORATION AND SUBSIDIARY**Notes to Consolidated Financial Statements****STATEMENTS OF COMPREHENSIVE INCOME**

(Dollars in thousands)

	Years Decem 2018
Net Income	\$9
Other comprehensive (loss) income:	
Unrealized net holding gains on available-for-sale investment securities arising during the period, net of income taxes of \$0 and \$55, respectively	—
Less reclassification adjustment for net gains included in net income, net of income taxes of \$0 and \$(30), respectively	—
Equity in other comprehensive (loss) income of banking subsidiary	(
Total other comprehensive (loss) income	(
Total Comprehensive Income	\$5

STATEMENTS OF CASH FLOWS

(Dollars in thousands)

	Years Decem 2018
CASH FLOWS FROM OPERATING ACTIVITIES:	
Net income	\$9,21
Adjustments to reconcile net income to net cash provided by operating activities:	
Losses (gains) on securities	72
Deferred income tax expense (benefit)	5
Equity in undistributed earnings of banking subsidiary	(3,24
Increase in prepaid/acrued expenses and other assets/liabilities	(214
Increase in advances from banking subsidiary	211
NET CASH PROVIDED BY OPERATING ACTIVITIES	6,045
CASH FLOWS FROM INVESTING ACTIVITIES:	
Proceeds from sales of investment securities available-for-sale	—
NET CASH PROVIDED BY INVESTING ACTIVITIES	—
CASH FLOWS FROM FINANCING ACTIVITIES:	

Proceeds from issuance of common stock	1,153
Proceeds from exercise of stock options	—
Dividends paid	(6,19)
NET CASH USED IN FINANCING ACTIVITIES	(5,04)
INCREASE IN CASH AND CASH EQUIVALENTS	1,004
CASH AND CASH EQUIVALENTS, BEGINNING	8,984
CASH AND CASH EQUIVALENTS, ENDING	\$9,988

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

As previously reported by the Corporation on a Form 8-K filed March 19, 2018, the Corporation engaged Baker Tilly Virchow Krause, LLP (“Baker Tilly”) as the Corporation’s new independent registered accounting firm for and with respect to the year ending December 31, 2018, and dismissed BDO (“BDO”) from that role.

During the Corporation’s most recent fiscal year and the subsequent interim period preceding B there were: (i) no disagreements with BDO on any matter of accounting principles or practices, statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the BDO, would have caused it to make reference to the subject matter of the disagreements in its consolidated financial statements for the Corporation; and, (ii) no “reportable events”, as such term is defined in Item 304(a)(1)(v) of Regulation S-K.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

First Keystone Corporation maintains disclosure controls and procedures (as defined in Rule 13a-15 under the Securities Exchange Act of 1934, as amended) designed to ensure that information required to be disclosed in the reports that the Corporation files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission. Based upon their evaluation of those disclosure controls and procedures performed as of the end of the period covered by this report, the Chief Executive Officer and Chief Financial Officer of the Corporation concluded that the Corporation’s disclosure controls and procedures were effective as of December 31, 2018.

Management’s Report on Internal Control Over Financial Reporting

The management of First Keystone Corporation is responsible for establishing and maintaining internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities and Exchange Act of 1934). The Corporation’s internal control system was designed to provide reasonable assurance to the management and Board of Directors regarding the preparation and fair presentation of published financial statements.

The management of First Keystone Corporation, along with participation of the Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of the Corporation's internal control over financial reporting as of December 31, 2018. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in the *Internal Control — Integrated Framework* (2013). Based on our assessment we believe that, as of December 31, 2018, the Corporation's internal control over financial reporting is effective based on those criteria.

First Keystone Corporation's independent registered public accounting firm that audited the Corporation's financial statements has issued an audit report on the effectiveness of the Corporation's internal control over financial reporting as of December 31, 2018. This report can be found in Item 8 of this Form 10-K.

Changes in Internal Control over Financial Reporting

Other than the changes described above, there were no changes in the Corporation's internal control over financial reporting during the fiscal quarter ended December 31, 2018, that materially affected, or are reasonably likely to materially affect, the Corporation's internal control over financial reporting.

ITEM 9B.

OTHER INFORMATION

There was no information required on Form 8-K during this quarter that was not reported.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information under the captions “Information As To Directors and Nominees,” “Principal Officers and the Corporation,” “Committees of the Board of Directors” and “Section 16(A) Beneficial Ownership Compliance” are incorporated here by reference from First Keystone Corporation’s definitive proxy statement.

CODE OF ETHICS

The Corporation has adopted a Directors and Senior Management Code of Ethics, which applies to all members of the Board of Directors and to senior officers of the Corporation. It can be found on the Investor Relations section of our website at www.firstkeystonecorporation.com.

ITEM 11. EXECUTIVE COMPENSATION

The information under the captions “Executive Compensation”, “Compensation Discussion and Analysis”, “Compensation Committee Interlocks and Insider Participation”, and “Compensation Committee Report” are incorporated here by reference from First Keystone Corporation’s definitive proxy statement.

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

The information under the caption “Share Ownership” is incorporated here by reference from First Keystone Corporation’s definitive proxy statement.

Equity Compensation Plan Information

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	rem for und con exc refl (a) (c)
Equity compensation plans approved by shareholders	—	\$ —	
Equity compensation plans not approved by shareholders	—	—	
Total	—	\$ —	

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

The information under the captions “Related Person Transactions” and “Governance of the Company” is incorporated here by reference from First Keystone Corporation’s definitive proxy statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information under the captions “Report of the Audit Committee” and “Proposal No. 2: Ratification of the Independent Registered Public Accounting Firm” are incorporated here by reference from First Keystone Corporation’s definitive proxy statement.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) 1. Financial Statements

The following consolidated financial statements are included in Part II, Item 8, of this Report:

First Keystone Corporation and Subsidiary.

<u>Reports of Independent Registered Public Accounting Firm</u>	<u>47</u>
<u>Consolidated Balance Sheets</u>	<u>50</u>
<u>Consolidated Statements of Income</u>	<u>51</u>
<u>Consolidated Statements of Comprehensive Income</u>	<u>52</u>
<u>Consolidated Statements of Changes in Stockholders’ Equity</u>	<u>53</u>
<u>Consolidated Statements of Cash Flows</u>	<u>54</u>
<u>Notes to Consolidated Financial Statements</u>	<u>55</u>

2. Financial Statement Schedules

Financial statements schedules are omitted because the required information is either not applicable, not required, or is shown in the financial statements or in their notes.

ITEM 16. FORM 10-K SUMMARY

None.

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3. Exhibits

Exhibits required by Item 601 of Regulation S-K:

Exhibit Number Referred to Item 601 of Regulation S-K	Description of Exhibit
<u>3i</u>	<u>Articles of Incorporation, as amended (Incorporated by reference to the Registrant's Report on Form 8-K dated August 28, 2013).</u> *
<u>3ii</u>	<u>By-Laws, as amended and restated (Incorporated by reference to the Registrant's Report on Form 8-K dated August 28, 2013).</u> *
<u>10.1(a)</u>	<u>Supplemental Employee Retirement Plan – J. Gerald Bazewil (Incorporated by reference to Exhibit 10 to Registrant's Annual Report on Form 10-Q for the year ended December 31, 2013).</u> *
<u>10.1(b)</u>	<u>Supplemental Employee Retirement Plan – David R. Saracino (Incorporated by reference to Exhibit 10 to Registrant's Annual Report on Form 10-Q for the year ended December 31, 2013).</u> *
<u>10.1(c)</u>	<u>Supplemental Employee Retirement Plan – Matthew P. Prosser (Incorporated by reference to Exhibit 10 to Registrant's Annual Report on Form 10-Q for the year ended December 31, 2013).</u> *
<u>10.1(d)</u>	<u>Supplemental Employee Retirement Plan – Elaine Woodland (Incorporated by reference to Exhibit 10 to Registrant's Annual Report on Form 10-Q for the year ended December 31, 2013).</u> *
<u>10.2</u>	<u>Management Incentive Compensation Plan</u>
<u>10.4</u>	<u>First Keystone Corporation 1998 Stock Incentive Plan (Incorporated by reference to Exhibit 10 to Registrant's Report on Form 10-Q for the year ended September 30, 2006).</u> *
<u>14</u>	<u>First Keystone Corporation Directors and Senior Management Incentive Compensation Plan (Incorporated by reference to Exhibit 99.1 to Registrant's Report on Form 10-K dated August 27, 2013).</u>
<u>21</u>	<u>List of Subsidiaries of the Issuer, filed with this annual report on Form 10-K.</u> **

<u>23.1</u>	<u>Consent of Baker Tilly Virchow Krause, LLP.**</u>
<u>23.2</u>	<u>Consent of BDO USA, LLP.**</u>
<u>31.1</u>	<u>Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer.**</u>
<u>31.2</u>	<u>Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer.**</u>
<u>32.1</u>	<u>Section 1350 Certification of Chief Executive Officer.**</u>
<u>32.2</u>	<u>Section 1350 Certification of Chief Financial Officer.**</u>
101.INS	XBRL Instance Document.**
101.SCH	XBRL Taxonomy Extension Schema Document.**
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.**
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

*Denotes a compensatory plan.

**Filed herewith.

The Corporation will provide a copy of any exhibit upon receipt of a written request for the part exhibits desired. All requests should be addressed to the Corporation's principal executive officer.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the undersigned has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

FIRST KEYSTONE CORPORATION

/s/ Elaine A. Woodland
Elaine A. Woodland
President and Chief Executive Officer
(Principal Executive Officer)

Date: March 18, 2019

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

/s/ John E. Arndt	March 18, 2019
John E. Arndt, Vice Chairman/Director	Date

/s/ Don E. Bower	March 18, 2019
Don E. Bower, Director	Date

/s/ Robert A. Bull	March 18, 2019
Robert A. Bull, Chairman/Director	Date

/s/ Robert E. Bull	March 18, 2019
Robert E. Bull, Director	Date

/s/ Joseph B. Conahan, Jr.	March 18, 2019
Joseph B. Conahan, Jr., Director	Date

/s/ Michael L. Jezewski	March 18, 2019
Michael L. Jezewski, Director	Date

/s/ Nancy J. Marr	March 18, 2019
Nancy J. Marr, Director	Date

/s/ William E. Rinehart
William E. Rinehart, Director

March 18, 2019
Date

/s/ Diane C.A. Rosler
Diane C.A. Rosler, Chief Financial Officer
(Principal Financial Officer)

March 18, 2019
Date

/s/ David R. Saracino
David R. Saracino, Secretary/Director

March 18, 2019
Date

/s/ Elaine A. Woodland
Elaine A. Woodland, President/
Chief Executive Officer/Director

March 18, 2019
Date