AMERICAN AXLE & MANUFACTURING HOLDINGS INC
Form 10-K
February 15, 2019

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

/X/ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018

or

/ / TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _______ to _______

Commission file number 1-14303

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.
(Exact name of registrant as specified in its charter)

DELAWARE	38-3161171
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
ONE DAUCH DRIVE, DETROIT, MICHIGAN	48211-1198
(Address of principal executive offices)	(Zip Code)

313-758-2000
(Registrant's telephone number, including area code)
Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
COMMON STOCK, PAR VALUE $0.01 PER SHARE	NEW YORK STOCK EXCHANGE
PREFERRED SHARE PURCHASE RIGHTS, PAR VALUE $0.01 PER SHARE	NEW YORK STOCK EXCHANGE

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

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

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

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

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

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

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

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

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

The closing price of the Common Stock on June 30, 2018 as reported on the New York Stock Exchange was $15.56 per share and the aggregate market value of the registrant's Common Stock held by non-affiliates was approximately $1,727.8 million. As of February 12, 2019, the number of shares of the registrant's Common Stock, $0.01 par value, outstanding was 111,732,271 shares.

Documents Incorporated by Reference
Portions of the registrant's Annual Report to Stockholders for the year ended December 31, 2018 and Proxy Statement for use in connection with its Annual Meeting of Stockholders to be held on May 2, 2019, to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after December 31, 2018, are incorporated by reference in Part I (Items 1, 1A, 1B, 2, 3 and 4), Part II (Items 5, 6, 7, 7A, 8, 9, 9A and 9B), Part III (Items 10, 11, 12, 13 and 14) and Part IV (Item 15) of this Report.

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Part I

Item 1. Business

As used in this report, except as otherwise indicated in information incorporated by reference, references to “our Company,” "we," "our," "us" or “AAM” mean American Axle & Manufacturing Holdings, Inc. (Holdings) and its subsidiaries and predecessors, collectively.

General Development of Business

Holdings, a Delaware corporation, is a successor to American Axle & Manufacturing of Michigan, Inc., a Michigan corporation, pursuant to a migratory merger between these entities in 1999.

In 2017, Alpha SPV I, Inc., a wholly-owned subsidiary of Holdings, merged with and into Metaldyne Performance Group, Inc. (MPG), with MPG as the surviving corporation in the merger. Upon completion of the merger, MPG became a wholly-owned subsidiary of Holdings.

Narrative Description of Business

Company Overview

We are a global Tier I supplier to the automotive, commercial and industrial markets. We design, engineer, validate and manufacture driveline, metal forming, powertrain and casting products, employing over 25,000 associates, operating at nearly 90 facilities in 17 countries, to support our customers on global and regional platforms with a continued focus on delivering operational excellence, technology leadership and quality.

We are a primary supplier of driveline components to General Motors Company (GM) for its full-size rear-wheel drive (RWD) light trucks and sport utility vehicles (SUV) manufactured in North America, supplying a significant portion of GM's rear axle and four-wheel drive and all-wheel drive (4WD/AWD) axle requirements for these vehicle platforms. We also supply GM with various products from each of our Metal Forming, Powertrain and Casting segments. Sales to GM were approximately 41% of our consolidated net sales in 2018, 47% in 2017, and 67% in 2016.

We also supply driveline system products to FCA US LLC (FCA) for heavy-duty Ram full-size pickup trucks and its derivatives, the AWD Jeep Cherokee, and a passenger car driveshaft program. In addition we sell various products to FCA from each of our Metal Forming, Powertrain and Casting segments. Sales to FCA were approximately 13% of our consolidated net sales in 2018, 14% in 2017 and 18% in 2016.

Business Strategy

We have aligned our business strategy to build value for our key stakeholders. We accomplish our strategic objectives by capitalizing on our competitive strengths and continuing to diversify our customer, product and geographic sales mix, while providing exceptional value to our customers.

Competitive Strengths

We achieve our strategic objectives by emphasizing a commitment to:

Sustaining our operational excellence and focus on cost management.

- AAM received the 2017 and 2016 GM Supplier of the Year Award, which is awarded to suppliers that consistently exceed GM's expectations, create outstanding value or bring new innovations to GM.
- We also received Jaguar Land Rover's (JLR) Supplier Excellence award for AAM's contribution to their business, cost transformation and operational delivery during 2017.
- During 2018, we launched more than 50 programs across our four business units, supporting a variety of customers including Ford, JLR and Mercedes-AMG. In 2019, we expect to launch approximately 50 new and replacement programs across our business units.
- We continue to focus on cost management through the implementation of the AAM Operating System to improve quality, eliminate waste and reduce lead time and total costs globally.
- We have established a cost competitive, operationally flexible global manufacturing, engineering and sourcing footprint to increase our presence in global growth markets, support global product development initiatives and establish regional cost competitiveness.
- Our business is vertically integrated to reduce cost and mitigate risk in the supply chain. Our acquisitions of MPG and USM Mexico Manufacturing LLC (USM Mexico) in 2017 furthered our efforts to vertically integrate the supply chain and helped ensure continuity of supply for certain parts to our largest manufacturing facility.

Maintaining our high quality standards, which are the foundation of our product durability and reliability.

- In 2018, we had five facilities in the United States, one facility in China and one facility in South Korea awarded the GM Supplier Quality Excellence Award for outstanding quality performance during the 2017 performance year. For our Changshu Manufacturing Facility in China, it was the fourth consecutive year that they earned this award.
- Our Fraser and Royal Oak, Michigan facilities were awarded the FCA Outstanding Quality Award in 2018 for the 2017 performance year.
- Also in 2018, our Suzhou Manufacturing Facility in China was recognized with Ford's Q1 Award, which recognizes suppliers who consistently deliver exceptional quality and Chery International's 2017 Excellent Quality Performance Supplier Award.
- Several other facilities were recognized for outstanding quality performance by OEMs such as Daimler, Honda and JLR.
- AAM has an enhanced internal quality assurance system that drives continuous improvement to meet and exceed the growing expectations of our OEM customers.

Achieving technology leadership by delivering innovative products which improve the diversification of our product portfolio while increasing our total global served market.

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In our Driveline segment, AAM's significant investment in research and development (R&D) has resulted in the development of advanced technology products designed to assist our customers in meeting the market demands for improved fuel efficiency; lower emissions; enhanced power density; advanced, sophisticated electronic controls; improved safety, ride and handling performance; and enhanced reliability and durability.

- e-AAM was created to design and commercialize battery electric and hybrid driveline systems designed to improve fuel efficiency, reduce CO_2 emissions and provide AWD capability. To date, e-AAM has secured two driveline systems contracts featuring patented e-AAM™ hybrid and electric driveline systems technology. One of these programs launched in 2018, and the other is expected to launch in 2020.

- AAM's EcoTrac® Disconnecting AWD system is a fuel-efficient driveline system that provides OEMs the option of an all-wheel-drive system that disconnects when not needed to improve fuel efficiency and reduce CO_2 emissions compared to conventional AWD systems. In 2018, AAM launched the next generation of our EcoTrac® Disconnecting AWD system (EcoTrac® Gen II), which is smaller, lighter in weight and more efficient. This technology is featured on several significant global crossover platforms, including GM's Chevrolet Equinox and GMC Terrain, FCA's AWD Jeep Cherokee and its derivatives, as well as the Cadillac XT4 and the Ford Edge.

- AAM has established a high-efficiency product portfolio that is designed to improve axle efficiency and fuel economy through innovative product design technologies. Our high-efficiency axles are featured on several premium OEM vehicles, including Mercedes-Benz and Jaguar Land Rover. As our customers focus on reducing weight through the use of aluminum and other lightweighting alternatives, AAM is well positioned to offer innovative, industry leading solutions. Our portfolio includes high-efficiency axles, aluminum axles and AWD applications for hybrid electric vehicles to full-electric vehicles. AAM's Quantum™ lightweight axle technology features a revolutionary design, which offers significant mass reduction and increased fuel economy and efficiency that is scalable across multiple applications without loss of performance or power. During 2018, AAM's Quantum™ lightweight axle technology received multiple awards, including the inaugural Future of Lightweighting Altair Enlighten Award and the inaugural Society of Automotive Analysts' Lightweighting Innovation Award.

- In our Powertrain segment, we have identified opportunities to apply our high strength connecting rod technology and refined vibration control systems to support hybrid powertrain systems and power dense four cylinder and three cylinder engines that are smaller in size. Also in our Powertrain segment, our Subiaco Manufacturing Facility has been recognized by the Metal Powder Industries Federation with a 2018 Powder Metallurgy Design Award of Distinction.

- In our Metal Forming segment, we have developed forged axle tubes, which deliver significant weight and cost reductions as compared to the traditional welded axle tubes. These forged axle tubes are expected to enter production on a program for a major OEM customer in 2019.

- Our Casting segment has developed patented high strength ductile iron called Ductile - ITE,™ which provides the potential to reduce mass by up to 20% while providing greater overall strength. Also in our Casting segment, we have identified an opportunity to begin utilizing three-dimensional printed sand cores in our production process, which has the potential to reduce costs and floor space requirements.

- AAM's Advanced Technology Development Center (ATDC) at our Detroit campus, allows us to accelerate technological advancements. This state-of-the-art facility is our center for technology benchmarking, prototype development, advanced technology development, supplier collaboration, customer showcasing and associate training on our future products, processes, and systems.

Diversification of Customer, Product and Geographic Sales Mix

Another element of building value for our key stakeholders is the diversification of our business through the growth of new and existing customer relationships and expansion of our product portfolio.

- In addition to maintaining and building upon our longstanding relationships with GM and FCA, we are focused on generating profitable growth with new and existing global customers. New business launches in 2018 included key customers such as Ford, JLR and Mercedes-AMG.

- We are working on approximately $1.5 billion in quoted and emerging new business opportunities. These opportunities would allow us to continue the diversification and expansion of our customer base, product portfolio and global footprint.

- We continue to evaluate and consider strategic opportunities that will complement our core strengths and supplement our diversification strategies while providing future, profitable growth prospects. Our

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acquisition of MPG in 2017 was a key step in achieving our goals of customer, product and geographic diversification.

We are focused on increasing our presence in global markets to support our customers' platforms.

- As our customers design their products for global markets, they will continue to require global support from their suppliers. For this reason, it is critical that we maintain a global presence in these markets in order to remain competitive for new contracts. As a result of our acquisition of MPG, we have expanded our global presence, primarily in Asia and Europe.

- In 2018, we entered into a new joint venture (JV) with Liuzhou Wuling Automobile Industry Co., Ltd. (Liuzhou Wuling), a subsidiary of Guangxi Automotive Group Co., Ltd. This is in addition to our existing JV with Hefei Automobile Axle Co., Ltd. (HAAC), a subsidiary of the JAC Group (Anhui Jianghuai Automotive Group Co., Ltd.), which includes 100% of HAAC's light commercial axle business. Liuzhou Wuling manufactures independent rear axles and driveheads to be used on crossovers, including SUVs, minivans and multi-purposes vehicles and HAAC supplies front and rear beam axles to several leading Chinese light truck manufacturers, including JAC and Foton (Beiqi Foton Motor Co., Ltd.). These joint ventures continue to be a strong advantage for building relationships with leading Chinese manufacturers.

Competition

We compete with a variety of independent suppliers and distributors, as well as with the in-house operations of certain vertically integrated OEMs. Technology, design, quality and cost are the primary elements of competition in our industry segments. In addition to traditional competitors in the automotive sector, the trend towards advanced electronic integration has increased the level of new market entrants, including technology companies.

Industry Trends

See Item 7, “Management's Discussion and Analysis - Industry Trends.”

Productive Materials

We believe that we have adequate sources of supply of productive materials and components for our manufacturing needs. Most raw materials (such as steel) and semi-processed or finished items are available within the geographical regions of our operating facilities from qualified sources in quantities sufficient for our needs. We currently have contracts with our steel suppliers that ensure continuity of supply to our principal operating facilities. We also have validation and testing capabilities that enable us to strategically qualify steel sources on a global basis. As we continue to expand our global manufacturing footprint, we may need to rely on suppliers in local markets that have not yet proven their ability to meet our requirements.

Backlog

We typically enter into agreements to provide our products for the life of our customers' vehicle programs. Our new and incremental business includes awarded programs and incremental content and volume including customer requested engineering changes. Our backlog may be impacted by various assumptions, many of which are provided by our customers based on their long range production plans. These assumptions include future production volume estimates, changes in program launch timing and fluctuation in foreign currency exchange rates.

Our gross new and incremental business backlog is approximately $1.25 billion for programs launching from 2019 to 2021. In 2017, our gross new and incremental business backlog was approximately $1.5 billion for programs launching from 2018 to 2020.

Of this $1.25 billion gross new and incremental business backlog, approximately 45% is for end-use markets outside of North America, approximately 70% relates to light trucks, including crossover vehicles and SUVs, and approximately 10% relates to our e-AAM™ hybrid and electric driveline systems technology.

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Patents and Trademarks

We maintain and have pending various U.S. and foreign patents, trademarks and other rights to intellectual property relating to our business, which we believe are appropriate to protect our interest in existing products, new inventions, manufacturing processes and product developments. We do not believe that any single patent or trademark is material to our business, nor would expiration or invalidity of any patent or trademark have a material adverse effect on our business or our ability to compete.

Cyclicality and Seasonality

Our operations are cyclical because they are directly related to worldwide automotive production, which is itself cyclical and dependent on general economic conditions and other factors. Our business is moderately seasonal as our major OEM customers historically have an extended shutdown of operations (typically 1-2 weeks) in conjunction with their model year changeover and an approximate one-week shutdown in December. Our major OEM customers also occasionally have longer shutdowns of operations (up to 6 weeks) for program changeovers. Accordingly, our quarterly results may reflect these trends.

Litigation and Environmental Matters

We are involved in various legal proceedings incidental to our business. Although the outcome of these matters cannot be predicted with certainty, we do not believe that any of these matters, individually or in the aggregate, will have a material adverse effect on our financial condition, results of operations or cash flows.

We are subject to various federal, state, local and foreign environmental and occupational safety and health laws, regulations and ordinances, including those regulating air emissions, water discharge, waste management and environmental cleanup. We will continue to closely monitor our environmental conditions to ensure that we are in compliance with all laws, regulations and ordinances. We have made, and anticipate continuing to make, capital and other expenditures (including recurring administrative costs) to comply with environmental requirements. Such expenditures were not significant in 2018, 2017 and 2016.

Associates

We employ over 25,000 associates on a global basis (including our joint venture affiliates) of which approximately 11,500 are employed in the U.S. and approximately 13,500 are employed at our foreign locations. Approximately 5,000 are salaried associates and approximately 20,000 are hourly associates. Of the 20,000 hourly associates, approximately 60% are covered under collective bargaining agreements with various labor unions.

Executive Officers of the Registrant

Name	Age	Position
David C. Dauch	54	Chairman of the Board & Chief Executive Officer
Michael K. Simonte	55	President
David E. Barnes	60	Vice President & General Counsel
Timothy E. Bowes	55	President - Casting
David M. Buckley	54	President - Europe
Gregory Deveson	57	President - Driveline
Terri M. Kemp	53	Vice President - Human Resources
Michael J. Lynch	54	Vice President - Finance & Controller
Christopher J. May	49	Vice President & Chief Financial Officer
Tolga Oal	47	Senior Vice President - Global Procurement & Supplier Quality Engineering
Alberto L. Satine	62	Senior Vice President - Special Projects
James Voeffray	53	Senior Vice President - Global Sales & Product Management
Norman Willemse	62	President - Metal Forming

David C. Dauch, age 54, has been AAM's Chief Executive Officer since September 2012. Mr. Dauch has served on AAM's Board of Directors since April 2009 and was appointed Chairman of the Board in August 2013. From September 2012 through August 2015, Mr. Dauch served as AAM’s President & CEO. Prior to that, Mr. Dauch served as President & Chief Operating Officer (2008 - 2012) and held several other positions of increasing responsibility from the time he joined AAM in 1995. Presently, he serves on the boards of Business Leaders for Michigan, the Detroit Economic Club, the Detroit Regional Chamber, the Great Lakes Council Boy Scouts of America, the Boys & Girls Club of Southeast Michigan, the National Association of Manufacturers (NAM), the Original Equipment Suppliers Association (OESA), Amerisure Mutual Holdings, Inc. and the Amerisure Companies (since December 2014). Mr. Dauch also serves on the Miami University Business Advisory Council, the General Motors Supplier Council and the FCA NAFTA Supplier Advisory Council.

Michael K. Simonte, age 55, has been President since August 2015. Mr. Simonte previously served as Executive Vice President & Chief Financial Officer (since December 2011); Executive Vice President - Finance & Chief Financial Officer (since February 2009); Group Vice President - Finance & Chief Financial Officer (since December 2007); Vice President - Finance & Chief Financial Officer (since January 2006); Vice President & Treasurer (since May 2004); and Treasurer (since September 2002). Mr. Simonte joined AAM in December 1998 as Director, Corporate Finance. Prior to joining our Company, Mr. Simonte served as Senior Manager at the Detroit office of Ernst & Young LLP. Mr. Simonte is a certified public accountant.

David E. Barnes, age 60, has been General Counsel and Corporate Secretary since joining AAM in 2012, and became a Vice President in 2017. In addition to his responsibilities as General Counsel and Corporate Secretary, he also serves as the Chief Compliance Officer of the Company. Prior to joining AAM, Mr. Barnes served as Executive Vice President, General Counsel and Secretary for Atlas Oil Company. He has held various positions during his career at Ford Motor Company, Dykema Gossett and Venture Holdings LLC, after beginning his career at Honigman, Miller, Schwartz and Cohn. Mr. Barnes holds a juris doctor degree.

Timothy E. Bowes, age 55, has been President - Casting since August 2017. Mr. Bowes previously served as Senior Vice President - Strategic & Business Development (since April 2016) and Senior Vice President - Corporate Planning (since December 2015). Prior to joining AAM, Mr. Bowes served as Chief Executive Officer & President of Transtar Corporation, since 2013. Prior to Transtar, Mr. Bowes served as Executive Officer & President - Commercial Truck at Meritor Inc., which he joined in 2005. He has held various leadership positions during his 25-year automotive and industrial career, managing business operations, strategic opportunities and sales & marketing for multiple organizations. In addition to Transtar and Meritor, Mr. Bowes' career also includes working at Hilite International, Wescast Industries, Intermet Corporation and ITT Automotive.

David Buckley, age 54, has been President - Europe since January 2019. He joined AAM in November 2017 as Vice President - Strategic and Business Development. Prior to joining AAM, Mr. Buckley served as President and Chief Executive Officer for Vexos, Inc from 2014 to 2017. Before joining Vexos, Mr. Buckley gained extensive global leadership experience as Chief Executive Officer of Cross Match Technologies, Vectronix and Modtech. Earlier in his career, Mr. Buckley led successful business units at General Electric and PricewaterhouseCoopers consulting. Mr. Buckley is a certified LEAN expert. Mr. Buckley is also a veteran of the U.S. Navy, and serves on the U.S. Naval Academy admissions board, and as a member of the U.S. Naval Academy Foundation Board.

Gregory Deveson, age 57, has been President - Driveline since January 2019. Prior to that, he served as President - Powertrain since joining AAM in April 2017. Prior to joining AAM, Mr. Deveson served as Senior Vice President of the Driveline Systems Group at Magna Powertrain from 2008 to 2016. Over his 25-year automotive and manufacturing career, Mr. Deveson has managed business operations, strategic opportunities, product engineering, purchasing and quality for multiple organizations.

Terri M. Kemp, age 53, has been Vice President - Human Resources since September 2012. Prior to that, she served as Executive Director - Human Resources & Labor Relations (since November 2010), Executive Director - Human Resources (since September 2009), Director - Human Resources Operations (since October 2008), and served in various plant and program management roles since joining the Company in July 1996. Prior to joining our Company, Mrs. Kemp served for nine years at Corning Incorporated, where she progressed through a series of manufacturing positions with increasing responsibility, including Industrial Engineer, Department Head and Operations Manager.

Michael J. Lynch, age 54, has been Vice President and Controller since February 2017. Prior to that, he served as Vice President - Driveline Business Performance & Cost Management (since May 2015); Vice President - Finance & Controller (since September 2012); Executive Director & Controller (since October 2008); Director - Commercial Analysis (since July 2006); Director - Finance, Driveline Americas (since March 2006); Director - Investment & Commercial Analysis (since November 2005); Director - Finance, Driveline (since October 2005); Director - Finance Operations, U.S. (since April 2005); Manager - Finance (since June 2003); Manager - Finance, Forge Division (since September 2001); Finance Manager - Albion Automotive (since October 1998); Supervisor - Cost Estimating (since February 1998) and Financial Analyst at the Detroit Manufacturing Facility since joining AAM in September 1996. Prior to joining our Company, Mr. Lynch served at Stellar Engineering for nine years in various capacities.

Christopher J. May, age 49, has been Vice President & Chief Financial Officer since August 2015. Prior to that, he served as Treasurer (since December 2011); Assistant Treasurer (since September 2008); Director of Internal Audit (since September 2005); Divisional Finance Manager - Metal Formed Products (since June 2003); Finance Manager - Three Rivers Manufacturing Facility (since August 2000); Manager, Financial Reporting (since November 1998) and Financial Analyst since joining AAM in 1994. Prior to joining AAM, Mr. May served as a Senior Accountant for Ernst & Young. Mr. May is a certified public accountant.

Tolga Oal, age 47, has been Senior Vice President - Global Procurement and Supplier Quality Engineering since January 2019. Prior to that he was President - Driveline (since September 2018), and Senior Vice President - AAM and President - AAM North America since joining our Company in September 2015. Prior to joining AAM, Mr. Oal served as Vice President of Global Electronics for TRW Automotive, since 2012. Before that, Mr. Oal served in various manufacturing and management positions of increasing responsibility within TRW for Global Electronics, including Director of Operations and as Director of Finance. Prior to joining TRW, Mr. Oal held various leadership positions in engineering, sales, purchasing, and finance at Siemens VDO Automotive/Continental.

Alberto L. Satine, age 62, has been Senior Vice President - Special Projects since January 2019. Prior to that, he served as President - Electrification (since September 2018); President - AAM Driveline (since August 2015); Senior Vice President - Global Driveline Operations (since January 2014); Group Vice President - Global Sales & Business Development (since December 2011); Vice President - Strategic & Business Development (since November 2005);

Vice President - Procurement (since January 2005); Executive Director, Global Procurement Direct Materials (since January 2004); General Manager, Latin American Driveline Sales and Operations (since August 2003) and General Manager of International Operations (since joining our Company in May 2001). Prior to joining our Company, Mr. Satine held several management positions at Dana Corporation, including the position of Regional President of Dana's Andean Operations in South America from 1997 to 2000 and General Manager of the Spicer Transmission Division in Toledo, Ohio from 1994 to 1997.

James Voeffray, age 53, has been Senior Vice President - Global Sales since joining AAM in September 2018. Prior to joining AAM, Mr. Voeffray served as Senior Vice President - Sales, Marketing & Program Management for GKN's Automotive Driveline Division from 2016 to 2018. During his 20 year career with GKN, Mr. Voeffray held a number of global leadership roles in the United States and United Kingdom, including the role of Senior Vice President - eDrive Systems. Mr. Voeffray also held various roles at Magna Powertrain Division and Ford Motor Company.

Norman Willemse, age 62, has been President - Metal Forming since August 2015. Prior to that, he served as Vice President - Metal Formed Product Business Unit (since December 2011); Vice President - Global Metal Formed Product Business Unit (since October 2008); Vice President - Global Metal Formed Product Operations (since December 2007); General Manager - Metal Formed Products Division (since July 2006) and Managing Director - Albion Automotive (since joining our Company in August 2001). Prior to joining our Company, Mr. Willemse served at AS Transmissions & Steering (ASTAS) for seven years as Executive Director Engineering Group Manager Projects and Engineering and John Deere for over 17 years in various engineering positions of increasing responsibility. Mr. Willemse is a professional certified mechanical engineer.

Internet Website Access to Reports

The website for American Axle & Manufacturing Holdings, Inc. is www.aam.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to section 13(a) or 15(d) of the Securities Exchange Act of 1934 are available free of charge through our website as soon as reasonably practicable after they are electronically filed with, or furnished to, the Securities and Exchange Commission (SEC). The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The information contained in the Company's website is not included, or incorporated by reference, in this Annual Report on Form 10-K.

Item 1A. Risk Factors

The following risk factors and other information included in this Annual Report on Form 10-K should be considered as our business, financial condition, operating results and cash flows could be materially adversely affected if any of the following risks occur.

Our business is significantly dependent on sales to GM and FCA.

We are a primary supplier of driveline components to GM for its full-size RWD light trucks and SUVs manufactured in North America, supplying a significant portion of GM's rear axle and 4WD/AWD axle requirements for these vehicle platforms. We also supply GM with various products from each of our Metal Forming, Powertrain and Casting segments. Sales to GM were approximately 41% of our consolidated net sales in 2018, 47% in 2017, and 67% in 2016. A reduction in our sales to GM or a reduction by GM of its production of RWD light trucks or SUVs, as a result of market share losses of GM or otherwise, could have a material adverse effect on our results of operations and financial condition.

We also supply driveline system products for FCA's heavy-duty Ram full-size pickup trucks and its derivatives, the AWD Jeep Cherokee and a passenger car driveshaft program. In addition, we sell various products to FCA from each of our Metal Forming, Powertrain and Casting segments. Sales to FCA accounted for approximately 13% of our consolidated net sales in 2018, 14% in 2017 and 18% in 2016. A reduction in our sales to FCA or a reduction by FCA of its production of the programs we support, as a result of market share losses of FCA or otherwise, could have a material adverse effect on our results of operations and financial condition.

Our business may also be adversely affected by reduced demand for the product programs we currently support, or anticipate supporting in the future, or if we do not obtain sales orders for successor programs that replace our current product programs.

We are under continuing pressure from our customers to reduce our prices.

Annual price reductions are a common practice in the automotive industry. Many of our contracts require us to reduce our prices in subsequent years and most of our contracts allow us to adjust prices for engineering changes requested by our customers. If we accommodate a customer's demand for higher annual price reductions and are unable to offset the impact of any such price reductions through continued technology improvements, cost reductions or other productivity initiatives, our results of operations and financial condition could be adversely affected.

Our business faces substantial competition.

The markets in which we compete are highly competitive. Our competitors include manufacturing facilities controlled by OEMs, as well as many other domestic and foreign companies possessing the capability to produce some or all of the products we supply. In addition to traditional competitors in the automotive sector, the trend towards advanced electronic integration has increased the level of new market entrants, including technology companies. Some of our competitors are affiliated with OEMs and others could have economic advantages as compared to our business, such as patents, existing underutilized capacity and lower wage and benefit costs. Technology, design, quality and cost are the primary elements of competition in our markets. As a result of these competitive pressures and other industry trends, OEMs and suppliers are developing strategies to reduce costs. These strategies include supply base consolidation, OEM in-sourcing and global sourcing. Our business may be adversely affected by increased competition from suppliers benefiting from OEM affiliate relationships or financial and other resources that we do not possess. Our business may also be adversely affected if we do not sustain our ability to meet customer requirements relative to technology, design, quality, delivery and cost.

Our company or our customers may not be able to successfully and efficiently manage the timing and costs of new product program launches.

Certain of our customers are preparing to launch new product programs for which we will supply newly developed products and related components. There can be no assurance that we will successfully complete the transition of our manufacturing facilities and resources to support these new product programs or other future product programs on a timely and cost efficient basis. Accordingly, the launch of new product programs may adversely affect production rates or other operational efficiency and profitability measures at our facilities. We may also experience difficulties with the performance of our supply chain on program launches, which could result in our inability to meet our contractual obligations to key customers. Production shortfalls or production delays, if any, could result in our failure to effectively manage our material and freight costs relating to these program launches. In addition, our customers may delay the launch or fail to successfully execute the launch of these new product programs, or any additional future product program for which we will supply products. Our revenues, operating results and financial condition could be adversely impacted if our customers fail to timely launch such programs or if we are unable to manage the timing requirements and costs of new product program launches.

If we are unable to respond timely to changes in regulation, technology, and market innovation, we risk not being able to develop our intellectual property into commercially viable products.

Our results of operations and financial condition are impacted, in part, by our competitive advantage in developing, engineering, and manufacturing innovative products. In the future, our ability to anticipate changes in technology, successfully develop, engineer, and bring to market new and innovative proprietary products, or successfully respond to evolving business models, in particular, autonomous and electric vehicle advances, may have a significant impact on our market competitiveness. If we are unable to maintain our competitive advantage through innovation, there could be a material adverse effect on our results of operations and financial condition.

Our company's global operations are subject to risks and uncertainties.

We have business and technical offices and manufacturing facilities in multiple countries outside the United States. International operations are subject to certain risks inherent in conducting business outside the U.S., such as changes in currency exchange rates, tax laws, price and currency exchange controls, tariffs or import restrictions, nationalization, immigration policies, expropriation and other governmental action. Our global operations also may be adversely affected by political events, domestic or international terrorist events and hostilities, natural disasters and significant weather events, or disruptions in the global financial markets.

Certain events, such as the United Kingdom's continued efforts to exit the European Union and tax reform, create a level of uncertainty for multi-national companies. As U.S. companies continue to expand globally, increased complexity exists due to recent changes to the U.S. corporate tax code, potential revisions to international tax law treaties, and renegotiated trade agreements, including the potential ratification of the United States-Mexico-Canada trade agreement (USMCA) or other potential changes to the North American Free Trade Agreement (NAFTA). These uncertainties could have a material adverse effect on our business and our results of operations and financial condition. As we continue to expand our business globally, our success will depend, in part, on our ability to anticipate and effectively manage these and other risks.

Our business is dependent on the rear-wheel drive light truck and SUV market segments in North America.

A substantial portion of our revenue is derived from products supporting RWD light truck and SUV platforms in North America. Sales and production levels of light trucks and SUVs can be affected by many factors, including changes in consumer demand; product mix shifts favoring other types of light vehicles, such as front-wheel drive based crossover vehicles and passenger cars; fuel prices; and government regulations. A reduction in the market segments we currently supply could have a material adverse impact on our results of operations and financial condition.

Our goodwill, other intangible assets, and long-lived assets are at risk of impairment if our business or market conditions indicate that the carrying value of those assets exceeds their fair value.

Accounting principles generally accepted in the United States of America (GAAP) require that companies evaluate the carrying value of goodwill, other intangible assets, and long-lived assets routinely in order to assess whether any indication of asset impairment exists. Goodwill and other indefinite-lived intangible assets are required to be evaluated on an annual basis, while finite-lived intangible assets and long-lived assets should be evaluated only when events and circumstances exist that indicate an asset or group of assets may be impaired.

Our acquisitions of MPG and USM Mexico in 2017 significantly increased the value of our goodwill and other intangible assets, and resulted in a change to our organizational structure from one reporting unit to multiple reporting units. As such, the threshold for analyzing impairment of goodwill has been reduced from an evaluation of the carrying value of our consolidated operations and its related fair value, to an analysis performed across multiple reporting units. This could potentially provide greater risk that goodwill becomes impaired in future operating periods. Further, the increase to goodwill and other intangible asset balances in connection with these acquisitions provides a greater chance that an impairment of these assets would have a material adverse effect on our results of operations and financial condition.

Our business is dependent on our Guanajuato Manufacturing Complex.

A high concentration of our global business is supported by our Guanajuato Manufacturing Complex (GMC) in Mexico. In 2018, GMC represented a significant portion of our net sales, profitability and cash flow from operations. We expect GMC to continue to represent a substantial portion of these metrics for the foreseeable future. A significant disruption to our GMC operations as a result of changes in trade agreements between Mexico and the U.S. (including USMCA or NAFTA), tariffs, natural disaster or otherwise could have a material adverse impact on our results of operations and financial condition.

We may incur material losses and costs as a result of product recall or field action, product liability and warranty claims, litigation and other disputes and claims.

We are exposed to warranty, product recall or field action and product liability claims in the event that our products fail to perform as expected, and we may be required to participate in a recall of such products. We are not responsible for certain warranty claims that may be incurred by our customers, which include returned components for which no defect was found upon inspection, discretionary acts of dealer goodwill, defects related to certain directed buy components, and build-to-print design issues. We review warranty claim activity in detail, and we may have disagreements with our customers as to responsibility for these types of costs incurred by our customers. In addition, as we continue to diversify our customer base, we expect our obligation to share in the cost of providing warranties as part of our agreements with new customers will increase. Costs and expenses associated with warranties, field actions, product recalls and product liability claims could have a material adverse impact on our results of operations and financial condition and may differ materially from the estimated liabilities that we have recorded in our consolidated financial statements.

In addition to warranty claims relating directly to products we produce, potential product recalls for our customers and their other suppliers, and the potential reputational harm that may result from such product recalls, could have a material adverse impact on our results of operations and financial condition.

We are also involved in various legal proceedings incidental to our business. Although we believe that none of these matters are likely to have a material adverse effect on our results of operations or financial condition, there can be no assurance as to the ultimate outcome of any such legal proceeding or any future legal proceedings.

A failure of our information technology (IT) networks and systems, or a failure to successfully integrate the IT systems of acquired companies, could adversely impact our business and operations.

We rely upon information technology networks and systems to process, transmit and store electronic information, and to manage or support a variety of business processes or activities. Additionally, we and certain of our third-party vendors collect and store personal information in connection with human resources operations and other aspects of our business. The secure operation of these information technology networks and systems and the proper processing and maintenance of this information are critical to our business operations. We cannot be certain that the security measures we have in place to protect these systems and data will be successful or sufficient to protect our IT systems from current and emerging technology threats and damage from computer viruses, unauthorized access, cyber attack and other similar disruptions. The occurrence of any of these events could compromise our networks, and the information stored there could be accessed, publicly disclosed or lost. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability or regulatory penalties under laws protecting the

privacy of personal information, the disruption of our operations or damage to our reputation. We may be required to incur significant costs to protect against damage caused by these disruptions or security breaches in the future.
In connection with our acquisition of MPG, we are integrating our IT systems and infrastructure, however, there is no assurance we will be able to successfully complete this integration on a timely basis, which could have a material adverse effect on our results of operations and financial condition.

Our business could be adversely affected by the cyclical nature of the automotive industry.

Our operations are cyclical because they are directly related to worldwide automotive production, which is itself cyclical and dependent on general economic conditions and other factors, such as credit availability, interest rates, fuel prices and consumer confidence. Our business may be adversely affected by an economic decline or fiscal crisis that results in a reduction of automotive production and sales by our largest customers.

Negative or unexpected tax consequences, as well as possible changes in foreign and domestic tax laws could adversely affect our results of operations and financial condition.

In 2017, the Tax Cuts and Jobs Act (the 2017 Act) was signed into law in the United States and has resulted in significant changes to tax regulations in the U.S. In addition, there have been recent global proposals brought forward by the Organisation for Economic Co-operation and Development (OECD) alongside the Group of Twenty (G-20), for tax jurisdictions to evaluate the potential reform of longstanding corporate tax law principles and treaties that could adversely affect multi-national companies. Although the OECD does not enact tax law, proposals like this or others that lead to substantial changes in enacted tax laws and treaties could have a material adverse impact on our results of operations and financial condition.

We file income tax returns in the U.S. federal jurisdiction, as well as various states and foreign jurisdictions. We are also subject to examinations of these income tax returns by the relevant tax authorities. Based on the status of these audits and the protocol of finalizing audits by the relevant tax authorities, it is not possible to estimate the impact of changes, if any, to previously recorded uncertain tax positions. Any negative or unexpected outcomes of these examinations and audits could have a material adverse impact on our results of operations and financial condition.

Our business could be adversely affected by disruptions in our supply chain and our customers' supply chain.

We depend on a limited number of suppliers for certain key components and materials needed for our products. We rely upon, and expect to continue to rely upon, certain suppliers for critical components and materials that are not readily available in sufficient volume from other sources. As we continue to expand our global manufacturing footprint, we may need to rely on suppliers in local markets that have not yet proven their ability to meet our requirements. These supply chain characteristics make us susceptible to supply shortages and price increases. If production volumes increase rapidly, there can be no assurance that the suppliers of critical components and materials will be able or willing to meet our future needs on a timely basis.

Our supply chain, as well as our customers' supply chain, is also at risk of unanticipated events such as natural disasters or changes in governmental regulations and trade agreements (including USMCA or NAFTA), that could cause a disruption in the supply of critical components to us and our customers. A significant disruption in the supply of these materials could have a material adverse effect on our results of operations and financial condition.

Our restructuring initiatives may not achieve their intended outcomes.

We have initiated restructuring actions in recent years to reduce cost and realign certain areas of our business and plan to initiate further restructuring actions in future periods. There can be no assurance that such restructuring initiatives will successfully achieve the intended outcomes, or that the charges related to such initiatives will not have a material adverse effect on our results of operations and financial condition.

As part of our strategic initiatives, we are actively assessing our product portfolio and may pursue plans to divest certain operations in future periods. Our results of operations or financial condition could be adversely affected if we initiate a divestiture and it is not completed in accordance with our expected timeline, or at all, or if we do not realize the expected benefits of the divestiture.

Our company may not realize all of the revenue expected from our new and incremental business backlog.

The realization of incremental revenues from awarded business is inherently subject to a number of risks and uncertainties, including the accuracy of customer estimates relating to the number of vehicles to be produced in new and existing product programs and the timing of such production, as well as the fluctuation in exchange rates for programs sourced in currencies other than our reporting currency. It is also possible that our customers may delay or cancel a product program that has been awarded to us. Our revenues, operating results and financial condition could be adversely affected relative to our current financial plans if we do not realize substantially all the revenue from our new and incremental business backlog.

Exchange rate fluctuations could adversely affect our company's global results of operations and financial condition.

As a result of our international operations, we are exposed to foreign currency risks that arise from our normal business operations, including risks associated with transactions that are denominated in currencies other than our local functional currencies. Gains and losses resulting from the remeasurement of assets and liabilities in a currency other than the functional currency of our foreign subsidiaries are reported in current period income. In the future, unfavorable changes in exchange rate relationships between the functional currencies of our subsidiaries and their non-functional currency denominated assets and liabilities could have an adverse impact on our results of operations and financial condition. While we use, from time to time, foreign currency forward contracts to help mitigate certain of these risks and reduce the effects of fluctuations in exchange rates, our efforts to manage these risks may not be successful.

We are also subject to currency translation risk as we are required to translate the financial statements of our foreign subsidiaries to U.S. dollars. We report the effect of translation for our foreign subsidiaries with a functional currency other than the U.S. dollar as a separate component of stockholders' equity. Unfavorable changes in the exchange rate relationship between the U.S. dollar and the functional currencies of our foreign subsidiaries could have an adverse impact on our results of operations and financial condition.

Our business could be adversely affected by volatility in the price of raw materials.

Worldwide commodity market conditions in recent years have resulted in volatility in the cost of steel and other metallic materials we use in production. During periods of general economic improvement and increases in customer demands, we have seen the cost of steel and metallic materials needed for our products increase. If we are unable to pass such cost increases on to our customers, this could have a material adverse effect on our results of operations and financial condition.

Our business could be adversely affected if we fail to maintain satisfactory labor relations.

A significant portion of our hourly associates worldwide are members of industrial trade unions employed under the terms of collective bargaining agreements. There can be no assurance that future negotiations with our labor unions will be resolved favorably or that we will not experience a work stoppage or disruption that could have a material adverse impact on our results of operations and financial condition. In addition, there can be no assurance that such future negotiations will not result in labor cost increases or other terms and conditions that could adversely affect our results of operations and financial condition or our ability to compete for future business.

We may be unable to consummate and successfully integrate acquisitions and joint ventures.

Engaging in acquisitions and joint ventures involves potential risks, including financial risks and failure to successfully integrate and fully realize the expected benefits of such acquisitions and joint ventures. In 2017, AAM completed our acquisition of 100% of the equity interests of MPG. Failure to successfully integrate our acquisition of

MPG, or to fully realize the expected benefits and efficiencies of the acquisition, may have a material adverse impact on our results of operations and financial condition. Integrating acquired operations is a significant challenge and there is no assurance that we will be able to manage the integrations successfully.

As we continue to expand globally and accelerate our diversification efforts, we may pursue strategic growth initiatives with greater frequency. An inability to successfully achieve the levels of organic and inorganic growth from our strategic initiatives could adversely impact our results of operations and financial condition.

We use important intellectual property in our business. If we are unable to protect our intellectual property, or if a third party makes assertions against us or our customers relating to intellectual property rights, our business could be adversely affected.

We own important intellectual property, including patents, trademarks, copyrights and trade secrets. Our intellectual property plays an important role in maintaining our competitive position in a number of the markets that we serve. Our competitors may develop technologies that are similar to our proprietary technologies or design around the patents we own or license. Further, as we expand our operations in jurisdictions where the protection of intellectual property rights is less robust, the risk of others duplicating our proprietary technologies increases, despite efforts we undertake to protect them. Developments or assertions by or against us relating to intellectual property rights, and any inability to protect these rights, could materially adversely affect our business and our competitive position.

Our company's ability to operate effectively could be impaired if we lose key personnel.

Our success depends, in part, on the efforts of our executive officers and other key associates, such as engineers and global operational leadership. In addition, our future success will depend on, among other factors, our ability to continue to attract and retain qualified personnel, particularly engineers and other employees with critical expertise and skills that support key customers and products. The loss of the services of our executive officers or other key associates, unexpected turnover, or the failure to attract or retain associates, could have a material adverse effect on our results of operations and financial condition.

We have incurred substantial indebtedness.

We have incurred substantial indebtedness and related debt service obligations, which could have important consequences, including:

- reduced flexibility in planning for, or reacting to, changes in our business, the competitive environment and the markets in which we operate, and to technological and other changes;
- reduced access to capital and increasing borrowing costs generally or for any additional indebtedness to finance future operating and capital expenses and for general corporate purposes;
- lowered credit ratings;
- reduced funds available for operations, capital expenditures and other activities; and
- competitive disadvantages relative to other companies with lower debt levels.

Our Senior Secured Credit Facilities, comprised of our Revolving Credit Facility, as well as our Term Loan A Facility and Term Loan B Facility (secured on a first priority basis by all or substantially all of the assets of AAM, Inc., the assets of Holdings and each guarantor's assets), and our senior unsecured notes, contain customary affirmative and negative covenants. Some, or with respect to certain covenants, all of these agreements include financial covenants based on total net leverage and cash interest expense coverage ratios and limitations on Holdings, AAM Inc, and their restricted subsidiaries to make certain investments, declare or pay dividends or distributions on capital stock, redeem or repurchase capital stock and certain debt obligations, incur liens, incur indebtedness, or merge, make certain acquisitions or sales of assets. A violation of any of these covenants or agreements could result in a default under these contracts, which could permit the lenders or note holders, as applicable, to accelerate repayment of any borrowings or notes outstanding at that time and levy on the collateral granted in connection with the senior secured credit facilities. A default or acceleration under the senior secured credit facilities or the indentures governing the senior unsecured notes may result in increased capital costs and defaults under our other debt agreements and may adversely affect our ability to operate our business, our subsidiaries' and guarantors' ability to operate their respective businesses and our results of operations and financial condition.

The available capacity under our Revolving Credit Facility could be limited by our total net leverage ratio under certain conditions. An increase in net leverage ratio, as a result of decreased earnings or otherwise, could result in reduced access to capital under our Revolving Credit Facility.

The interest rates included in the agreements that govern our Senior Secured Credit Facilities are based primarily on the London Interbank Offered Rate (LIBOR). In the future, use of LIBOR may be discontinued and we cannot be certain how long LIBOR will continue to be a viable benchmark interest rate. Use of alternative interest rates could result in increased borrowing costs associated with our Senior Secured Credit Facilities.

Our company faces substantial pension and other postretirement benefit obligations.

We have significant pension and other postretirement benefit obligations to certain of our associates and retirees. Our ability to satisfy the funding requirements associated with these obligations will depend on our cash flow from operations and our ability to access credit and the capital markets. The funding requirements of these benefit plans, and the related expense reflected in our financial statements, are affected by several factors that are subject to an inherent degree of uncertainty and volatility, including governmental regulation. Key assumptions used to value these benefit obligations and the cost of providing such benefits, funding requirements and expense recognition include the discount rate, the expected long-term rate of return on pension assets, mortality rates and the health care cost trend rate. If the actual trends in these factors are less favorable than our assumptions, this could have an adverse effect on our results of operations and financial condition.

Our business is subject to costs associated with environmental, health and safety regulations.

Our operations are subject to various federal, state, local and foreign laws and regulations governing, among other things, emissions to air, discharge to waters and the generation, handling, storage, transportation, treatment and disposal of waste and other materials. We believe that our current and former operations and facilities have been, and are being, operated in compliance, in all material respects, with such laws and regulations, many of which provide for substantial fines and criminal sanctions for violations. The operation of our manufacturing facilities entails risks in these areas, however, and there can be no assurance that we will not incur material costs or liabilities. In addition, potentially significant expenditures could be required in order to comply with evolving environmental, health and safety laws, regulations or other pertinent requirements that may be adopted or imposed in the future by governmental authorities.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

The table below summarizes our global manufacturing locations and key administrative locations:

North America		Europe	Asia	South America
United States		Czech Republic	China	Brazil
Brewton, AL (d)	Oxford, MI (b)	Oslavany (b)	Changshu (a)	Araucária (a)
Columbiana, AL (d)	Rochester Hills, MI (e)	Zbysov (b)	Hefei (JV) (a)	Indaiatuba (c)
Paris, AR (c)	Royal Oak, MI (b)	England	Huzhou City (JV) (b)	
Subiaco, AR (c)	Southfield, MI (e)	Halifax (c)	Shanghai (e)	
Bolingbrook, IL (b)	Three Rivers, MI (a)	France	Suzhou (c)	
Chicago, IL (b)	Troy, MI (b)	Decines (c)	India	
Bluffton, IN (c)	Warren, MI (c)	Lyon (c)	Chennai (a)	
Columbus, IN (b)	St. Cloud, MN (d)	Germany	Jamshedpur (JV) (c)	
Fort Wayne, IN (b)	Biscoe, NC (d)	Bad Homburg (e)	Pune (a), (e)	
Fremont, IN (c)	Malvern, OH (b)	Nurnberg (b)	Japan	
New Castle, IN (d)	Minerva, OH (b)	Zell (b)	Tokyo (e)	
North Vernon, IN (c)	Twinsburg, OH (c)	Luxembourg	South Korea	
Remington, IN (b)	Ridgway, PA (c)	Steinfort (e)	Pyeongtaek (c)	
Rochester, IN (a)	St. Mary's, PA (c)	Poland	Thailand	
Auburn Hills, MI (b)	Charleston, SC (a)	Swidnica (a)	Rayong (a)	
Detroit, MI (e)	Browntown, WI (d)	Scotland		
Fraser, MI (b)	Menomonee Falls, WI (d)	Glasgow (a)		
Kingsford, MI (d)	Reedsburg, WI (d)	Spain		
Litchfield, MI (c)	Wauwatosa, WI (d)	Barcelona (c)		
Mexico		Valencia (c)		
El Carmen (d)	Silao (a), (b)	Sweden		
Ramos Arizpe (c)		Arjeplog (e)		
		Trollhättan (a), (e)		

(a) Location supports the Driveline segment. (b) Location supports the Metal Forming segment. (c) Location supports the Powertrain segment. (d) Location supports the Casting segment. (e) Administrative, engineering or technical location.

We believe that our property and equipment is properly maintained and in good operating condition. We will continue to evaluate capacity requirements in light of current and projected market conditions. We also intend to continue redeploying assets in order to increase our capacity utilization and reduce future capital expenditures to support program launches.

Item 3. Legal Proceedings

We are involved in various legal proceedings incidental to our business. Although the outcome of these matters cannot be predicted with certainty, we do not believe that any of these matters, individually or in the aggregate, will have a material effect on our financial condition, results of operations or cash flows.

We are subject to various federal, state, local and foreign environmental and occupational safety and health laws, regulations and ordinances, including those regulating air emissions, water discharge, waste management and environmental cleanup. We closely monitor our environmental conditions to ensure that we are in compliance with applicable laws, regulations and ordinances. We have made, and anticipate continuing to make, capital and other expenditures to comply with environmental requirements, including recurring administrative costs. Such expenditures were not significant in 2018, 2017 and 2016.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock, par value $0.01 per share, is listed for trading on the New York Stock Exchange (NYSE) under the symbol “AXL.” We had approximately 202 stockholders of record as of February 12, 2019.

Dividends

We did not declare or pay any cash dividends on our common stock in 2018. Our Credit Agreement associated with our Senior Secured Credit Facilities that was entered into in connection with our acquisition of MPG, limits our ability to declare or pay dividends or distributions on capital stock.

Issuer Purchases of Equity Securities

In 2016, AAM's Board of Directors authorized a share repurchase program of up to $100 million of AAM's common shares as part of AAM's overall capital allocation strategy. The program expired on December 31, 2018. We repurchased a total of $1.5 million of shares under the share repurchase program and there were no share repurchases under the program during 2018.

Securities Authorized for Issuance under Equity Compensation Plans

The information regarding our securities authorized for issuance under equity compensation plans is incorporated by reference from our Proxy Statement.

Item 6. Selected Financial Data

FIVE YEAR CONSOLIDATED FINANCIAL SUMMARY
Year Ended December 31,

	2018		2017		2016		2015		2014	
	(in millions, except per share data)									
Statement of operations data										
Net sales	$7,270.4		$6,266.0		$3,948.0		$3,903.1		$3,696.0	
Gross profit	1,140.4		1,119.1		726.1		635.4		522.8	
Selling, general and administrative expenses	385.7		390.1		314.2		274.1		255.2	
Amortization of intangibles	99.4		75.3		5.0		3.2		0.4	
Goodwill impairment	485.5	(a)	—		—		—		—	
Restructuring and acquisition-related costs	78.9		110.7		26.2		—		—	
Gain on sale of business	15.5	(b)	—		—		—		—	
Operating income	106.4		543.0		380.7		358.1		267.6	
Net interest expense	214.3		192.7		90.5		96.6		97.8	
Gain on settlement of capital lease	15.6	(c)	—		—		—		—	
Net income (loss)	(56.8)	(d)(e)	337.5	(d)(e)	240.7	(d)	235.6	(e)	143.0	(f)
Net income (loss) attributable to AAM	(57.5)	(d)(e)	337.1	(d)(e)	240.7	(d)	235.6	(e)	143.0	(f)
Diluted earnings (loss) per share	$(0.51)		$3.21		$3.06		$3.02		$1.85	
Balance sheet data										
Cash and cash equivalents	$476.4		$376.8		$481.2		$282.5		$249.2	
Total assets	7,510.7		7,882.8		3,422.3	(g)	3,176.9	(g)	3,214.6	(g)
Total long-term debt, net	3,686.8		3,969.3		1,400.9		1,375.7		1,504.6	
Total AAM stockholders' equity	1,483.9		1,536.0		504.2	(g)	275.7	(g)	87.6	(g)
Dividends declared per share	—		—		—		—		—	
Statement of cash flows data										
Cash provided by operating activities	$771.5		$647.0		$407.6		$377.6		$318.4	
Cash used in investing activities	(478.2)		(1,378.1)		(227.7)		(188.1)		(195.3)	
Cash provided by (used in) financing activities	(184.5)		615.6		18.4		(143.6)		(21.4)	
Other data										
Depreciation and amortization	$528.8		$428.5		$201.8		$198.4		$199.9	
Capital expenditures	524.7		477.7		223.0		193.5		206.5	
Proceeds from sale of business, net	47.1	(b)	5.9		—		—		—	
Acquisition of business, net of cash acquired	1.3		895.5		5.6		—		—	
Purchase buyouts of leased equipment	0.5		13.3		4.6		—		—	

(a) We recorded a goodwill impairment charge in 2018 associated with the annual goodwill impairment test for our Powertrain and Casting segments.

(b) In 2018, we completed the sale of the aftermarket business associated with our Powertrain segment for approximately $50 million, of which we received net proceeds of $47.1 million. As a result of the sale, we recorded a $15.5 million pre-tax gain.

(c) In 2018, we reached a settlement agreement related to a capital lease obligation that we had recognized as a result of the acquisition of MPG. This settlement resulted in a pre-tax gain of $15.6 million, including accrued interest.

(d) For 2018, these amounts include goodwill impairment charges of $400.3 million, net of tax, acquisition and integration related charges of $27.5 million, net ight">

CITIZENS & NORTHERN CORPORATION – FORM 10-Q

(In Thousands)	December 31, 2015 Quoted Prices in Active Markets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)	Total Fair Value
Recurring fair value measurements				
AVAILABLE-FOR-SALE SECURITIES:				
Obligations of U.S. Government agencies	$ 0	$ 10,483	$ 0	$ 10,483
Obligations of states and political subdivisions:				
Tax-exempt	0	107,757	0	107,757
Taxable	0	34,597	0	34,597
Mortgage-backed securities	0	73,343	0	73,343
Collateralized mortgage obligations, Issued by U.S. Government agencies	0	191,715	0	191,715
Collateralized debt obligations	0	9	0	9
Total debt securities	0	417,904	0	417,904
Marketable equity securities	2,386	0	0	2,386
Total available-for-sale securities	2,386	417,904	0	420,290
Servicing rights	0	0	1,296	1,296
Total recurring fair value measurements	$ 2,386	$ 417,904	$ 1,296	$ 421,586
Nonrecurring fair value measurements				
Impaired loans with a valuation allowance	$ 0	$ 0	$ 1,933	$ 1,933
Valuation allowance	0	0	(820)	(820)
Impaired loans, net	0	0	1,113	1,113
Foreclosed assets held for sale	0	0	1,260	1,260
Total nonrecurring fair value measurements	$ 0	$ 0	$ 2,373	$ 2,373

Management’s evaluation and selection of valuation techniques and the unobservable inputs used in determining the fair values of assets valued using Level 3 methodologies include sensitive assumptions. Other market participants might use substantially different assumptions, which could result in calculations of fair values that would be substantially different than the amount calculated by management.

At June 30, 2016 and December 31, 2015, quantitative information regarding significant techniques and inputs used for assets measured on a recurring basis using unobservable inputs (Level 3 methodologies) are as follows:

Asset	Fair Value at 6/30/16 (In Thousands)	Valuation Technique	Unobservable Input(s)	Method or Value As of 6/30/16

Servicing rights	$ 1,224	Discounted cash flow	Discount rate	10.00	%	Rate used through modeling period
			Loan prepayment speeds	181.00	%	Weighted-average PSA
			Servicing fees	0.25	%	of loan balances
				4.00	%	of payments are late
				5.00	%	late fees assessed
				$1.94		Miscellaneous fees per account per month
			Servicing costs	$6.00		Monthly servicing cost per account
				$24.00		Additional monthly servicing cost per loan on loans more than 30 days delinquent
				1.50	%	of loans more than 30 days delinquent
				3.00	%	annual increase in servicing costs

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CITIZENS & NORTHERN CORPORATION – FORM 10-Q

Asset	Fair Value at 12/31/15 (In Thousands)	Valuation Technique	Unobservable Input(s)		Method or Value As of 12/31/15
Servicing rights	$ 1,296	Discounted cash flow	Discount rate	10.00 %	Rate used through modeling period
			Loan prepayment speeds	146.00 %	Weighted-average PSA
			Servicing fees	0.25 %	of loan balances
				4.00 %	of payments are late
				5.00 %	late fees assessed
				$1.94	Miscellaneous fees per account per month
			Servicing costs	$6.00	Monthly servicing cost per account
				$24.00	Additional monthly servicing cost per loan on loans more than 30 days delinquent
				1.50 %	of loans more than 30 days delinquent
				3.00 %	annual increase in servicing costs

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

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

(In Thousands)	Three Months Ended		Six Months Ended	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
Servicing rights balance, beginning of period	$ 1,261	$ 1,195	$ 1,296	$ 1,281
Issuances of servicing rights	71	47	107	78
Unrealized losses included in earnings	(108)	(33)	(179)	(150)
Servicing rights balance, end of period	$ 1,224	$ 1,209	$ 1,224	$ 1,209

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

At June 30, 2016 and December 31, 2015, quantitative information regarding significant techniques and inputs used for nonrecurring fair value measurements using unobservable inputs (Level 3 methodologies) are as follows:

(In Thousands, Except Percentages) Asset	Balance at 6/30/16	Valuation Allowance at 6/30/16	Fair Value at 6/30/16	Valuation Technique	Unobservable Inputs	Value at 6/30/16 (Weighted Average)
Impaired loans:						
Commercial:						
Commercial loans secured by real estate	$ 413	$ 125	$ 288	Sales comparison	Discount to appraised value	44 %
Commercial and industrial	354	77	277	Sales comparison	Discount to appraised value	54 %
Loans secured by farmland	508	51	457	Sales comparison	Discount to appraised value	55 %
Total impaired loans	$ 1,275	$ 253	$ 1,022			
Foreclosed assets held for sale - real estate:						
Residential (1-4 family)	$ 1,005	$ 0	$ 1,005	Sales comparison	Discount to appraised value	34 %
Land	1,047	0	1,047	Sales comparison	Discount to appraised value	39 %
Total foreclosed assets held for sale	$ 2,052	$ 0	$ 2,052			

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(In Thousands, Except Percentages) Asset	Balance at 12/31/15	Valuation Allowance at 12/31/15	Fair Value at 12/31/15	Valuation Technique	Unobservable Inputs	Value at 12/31/15 (Weighted Average)
Impaired loans:						
Residential mortgage loans - first liens	$ 42	$ 1	$ 41	Sales comparison	Discount to appraised value	31 %
Commercial:						
Commercial loans secured by real estate	317	97	220	Sales comparison	Discount to appraised value	46 %
Commercial and industrial	75	75	0	Sales comparison	Discount to appraised value	31 %
Loans secured by farmland	512	52	460	Sales comparison	Discount to appraised value	49 %
Multi-family (5 or more) residential	987	595	392	Sales comparison	Discount to appraised value	41 %
Total impaired loans	$ 1,933	$ 820	$ 1,113			
Foreclosed assets held for sale -real estate:						
Residential (1-4 family)	$ 556	$ 0	$ 556	Sales comparison	Discount to appraised value	32 %
Land	704	0	704	Sales comparison	Discount to appraised value	29 %
Total foreclosed assets held for sale	$ 1,260	$ 0	$ 1,260			

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

The Corporation used the following methods and assumptions in estimating fair value disclosures for financial instruments:

CASH AND CASH EQUIVALENTS - The carrying amounts of cash and short-term instruments approximate fair values.

CERTIFICATES OF DEPOSIT - Fair values for certificates of deposit, included in cash and due from banks in the consolidated balance sheet, are based on quoted market prices for certificates of similar remaining maturities.

SECURITIES - Fair values for securities, excluding restricted equity securities, are based on quoted market prices or other methods as described above. The carrying value of restricted equity securities approximates fair value based on applicable redemption provisions.

LOANS HELD FOR SALE - Fair values of loans held for sale are determined based on applicable sale prices available under the Federal Home Loan Banks' MPF Xtra and MPF Original programs.

LOANS - Fair values are estimated for portfolios of loans with similar financial characteristics. Loans are segregated by type such as commercial, commercial real estate, residential mortgage and other consumer. Each loan category is further segmented into fixed and adjustable rate interest terms and by performing and nonperforming categories. The fair value of performing loans is calculated by discounting contractual cash flows, adjusted for estimated prepayments based on historical experience, using estimated market discount rates that reflect the credit and interest rate risk inherent in the loans. Fair value of nonperforming loans is based on recent appraisals or estimates prepared by the Corporation's lending officers.

SERVICING RIGHTS - The fair value of servicing rights, included in other assets in the consolidated balance sheet, is determined through a discounted cash flow valuation. Significant inputs include expected net servicing income, the discount rate and the expected prepayment speeds of the underlying loans.

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DEPOSITS - The fair value of deposits with no stated maturity, such as noninterest-bearing demand deposits, savings, money market and interest checking accounts, is (by definition) equal to the amount payable on demand at June 30, 2016 and December 31, 2015. The fair value of time deposits, such as certificates of deposit and Individual Retirement Accounts, is based on the discounted value of contractual cash flows. The discount rate is estimated using the rates currently offered

for deposits of similar remaining maturities. The fair value estimates of deposits do not include the benefit that results from the low-cost funding provided by the deposit liabilities compared to the cost of borrowing funds in the market, commonly referred to as the core deposit intangible.

BORROWED FUNDS - The fair value of borrowings is estimated using discounted cash flow analyses based on rates currently available to the Corporation for similar types of borrowing arrangements.

ACCRUED INTEREST - The carrying amounts of accrued interest receivable and payable approximate fair values.

OFF-BALANCE SHEET COMMITMENTS - The Corporation has commitments to extend credit and has issued standby letters of credit. Standby letters of credit are conditional guarantees of performance by a customer to a third party. Estimates of the fair value of these off-balance sheet items were not made because of the short-term nature of these arrangements and the credit standing of the counterparties.

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

(In Thousands)	Valuation Method(s) Used	June 30, 2016 Carrying Amount	June 30, 2016 Fair Value	December 31, 2015 Carrying Amount	December 31, 2015 Fair Value
Financial assets:					
Cash and cash equivalents	Level 1	$23,968	$23,968	$33,313	$33,313
Certificates of deposit	Level 2	3,468	3,500	2,748	2,752
Available-for-sale securities	See Above	417,205	417,205	420,290	420,290
Restricted equity securities (included in Other Assets)	Level 2	3,615	3,615	4,657	4,657
Loans held for sale	Level 2	381	381	280	280
Loans, net	Level 3	719,913	720,987	696,991	685,552
Accrued interest receivable	Level 2	3,837	3,837	3,768	3,768
Servicing rights	Level 3	1,224	1,224	1,296	1,296
Financial liabilities:					
Deposits with no stated maturity	Level 2	737,817	737,817	713,931	713,931

Time deposits	Level 2	230,134	230,555	221,684	221,891
Short-term borrowings	Level 2	25,702	25,615	53,496	53,398
Long-term borrowings	Level 2	38,615	40,017	38,767	40,166
Accrued interest payable	Level 2	73	73	70	70

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6. SECURITIES

Amortized cost and fair value of available-for-sale securities at June 30, 2016 and December 31, 2015 are summarized as follows:

(In Thousands)	June 30, 2016 Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Fair Value
Obligations of U.S. Government agencies	$9,664	$117	$ 0	$9,781
Obligations of states and political subdivisions:				
Tax-exempt	110,702	5,374	(20)	116,056
Taxable	34,015	1,117	0	35,132
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:				
Residential pass-through securities	64,108	1,299	0	65,407
Residential collateralized mortgage obligations	175,889	2,354	(263)	177,980
Commercial mortgage-backed securities	11,120	119	0	11,239
Collateralized debt obligations	1	0	0	1
Total debt securities	405,499	10,380	(283)	415,596
Marketable equity securities	1,171	438	0	1,609
Total	$406,670	$10,818	$ (283)	$417,205

(In Thousands)	December 31, 2015 Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Fair Value
Obligations of U.S. Government agencies	$10,663	$12	$ (192)	$10,483
Obligations of states and political subdivisions:				
Tax-exempt	103,414	4,365	(22)	107,757
Taxable	34,317	381	(101)	34,597
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:				
Residential pass-through securities	73,227	486	(370)	73,343
Residential collateralized mortgage obligations	193,145	623	(2,053)	191,715
Collateralized debt obligations:	9	0	0	9
Total debt securities	414,775	5,867	(2,738)	417,904
Marketable equity securities	1,680	706	0	2,386

Total	$ 416,455	$ 6,573	$ (2,738)	$ 420,290

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The following table presents gross unrealized losses and fair value of available-for-sale securities with unrealized loss positions that are not deemed to be other-than-temporarily impaired, aggregated by length of time that individual securities have been in a continuous unrealized loss position at June 30, 2016 and December 31, 2015:

June 30, 2016 (In Thousands)	Less Than 12 Months		12 Months or More		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Obligations of states and political subdivisions, Tax-exempt	$ 2,875	$ (6)	$ 1,002	$ (14)	$ 3,877	$ (20)
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies,						
Residential collateralized mortgage obligations	2,773	(73)	25,995	(190)	28,768	(263)
Total temporarily impaired available-for-sale securities	$ 5,648	$ (79)	$ 26,997	$ (204)	$ 32,645	$ (283)

December 31, 2015 (In Thousands)	Less Than 12 Months		12 Months or More		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Obligations of U.S. Government agencies	$ 0	$ 0	$ 7,850	$ (192)	$ 7,850	$ (192)
Obligations of states and political subdivisions:						
Tax-exempt	5,200	(19)	216	(3)	5,416	(22)
Taxable	10,605	(60)	2,910	(41)	13,515	(101)
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored Agencies:						
Residential pass-through securities	38,764	(295)	3,503	(75)	42,267	(370)
Residential collateralized mortgage obligations	88,355	(648)	49,273	(1,405)	137,628	(2,053)
Total temporarily impaired available-for-sale securities	$ 142,924	$ (1,022)	$ 63,752	$ (1,716)	$ 206,676	$ (2,738)

Gross realized gains and losses from available-for-sale securities were as follows:

(In Thousands)	3 Months Ended		6 Months Ended	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015

Gross realized gains from sales	$ 123	$ 932	$ 506	$ 1,006
Gross realized losses from sales	(1)	0	(1)	0
Net realized gains	$ 122	$ 932	$ 505	$ 1,006

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The amortized cost and fair value of available-for-sale debt securities by contractual maturity are shown in the following table as of June 30, 2016. Actual maturities may differ from contractual maturities because counterparties may have the right to call or prepay obligations with or without call or prepayment penalties.

(In Thousands)	Amortized Cost	Fair Value
Due in one year or less	$ 11,792	$ 11,899
Due from one year through five years	73,657	76,144
Due from five years through ten years	44,270	46,349
Due after ten years	24,663	26,578
Sub-total	154,382	160,970
Mortgage-backed securities issued or guaranteed by U.S. Government agencies or sponsored agencies:		
Residential pass-through securities	64,108	65,407
Residential collateralized mortgage obligations	175,889	177,980
Commercial mortgage-backed securities	11,120	11,239
Total	$ 405,499	$ 415,596

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

Investment securities carried at $203,791,000 at June 30, 2016 and $228,616,000 at December 31, 2015 were pledged as collateral for public deposits, trusts and certain other deposits as provided by law. See Note 8 for information concerning securities pledged to secure borrowing arrangements.

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 evaluation. Consideration is given to (1) the length of time and the extent to which the fair value has been less than cost, (2) the financial condition and near-term prospects of the issuer, and (3) whether the Corporation intends to sell the security or more likely than not will be required to sell the security before its anticipated recovery.

A summary of information management considered in evaluating debt and equity securities for OTTI at June 30, 2016 is provided below.

Debt Securities

At June 30, 2016, management performed an assessment for possible OTTI of the Corporation's debt securities on an issue-by-issue basis, relying on information obtained from various sources, including publicly available financial data, ratings by external agencies, brokers and other sources. The extent of individual analysis applied to each security depended on the size of the Corporation's investment, as well as management's perception of the credit risk associated with each security. Based on the results of the assessment, management believes impairment of debt securities at June 30, 2016 to be temporary.

Equity Securities

The Corporation's marketable equity securities at June 30, 2016 and December 31, 2015 consisted exclusively of stocks of banking companies. At June 30, 2016, the Corporation held no stocks with an unrealized loss.

The Corporation realized gains from sales of bank stocks totaling $28,000 in the three-month period ended June 30, 2016 and $277,000 during the first six months of 2016. Realized gains from sales of bank stocks totaled $476,000 in the three-month and six-month periods ended June 30, 2015.

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C&N Bank is a member of the Federal Home Loan Bank of Pittsburgh (FHLB-Pittsburgh), which is one of 11 regional Federal Home Loan Banks. As a member, C&N Bank is required to purchase and maintain stock in FHLB-Pittsburgh. There is no active market for FHLB-Pittsburgh stock, and it must ordinarily be redeemed by FHLB-Pittsburgh in order to be liquidated. C&N Bank's investment in FHLB-Pittsburgh stock, included in Other Assets in the consolidated balance sheet, was $3,485,000 at June 30, 2016 and $4,527,000 at December 31, 2015. The Corporation evaluated its holding of FHLB-Pittsburgh stock for impairment and deemed the stock to not be impaired at June 30, 2016 and December 31, 2015. In making this determination, management concluded that recovery of total outstanding par value, which equals the carrying value, is expected. The decision was based on review of financial information that FHLB-Pittsburgh has made publicly available.

7. LOANS

The loans receivable portfolio is segmented into residential mortgage, commercial and consumer loans. Loans outstanding at June 30, 2016 and December 31, 2015 are summarized by segment, and by classes within each segment, as follows:

Summary of Loans by Type (In Thousands)	June 30, 2016	Dec. 31, 2015
Residential mortgage:		
Residential mortgage loans - first liens	$315,191	$304,783
Residential mortgage loans - junior liens	22,159	21,146
Home equity lines of credit	39,054	39,040
1-4 Family residential construction	22,241	21,121
Total residential mortgage	398,645	386,090
Commercial:		
Commercial loans secured by real estate	153,070	154,779
Commercial and industrial	82,390	75,196
Political subdivisions	41,026	40,007
Commercial construction and land	9,193	5,122
Loans secured by farmland	6,615	7,019
Multi-family (5 or more) residential	8,173	9,188
Agricultural loans	4,692	4,671
Other commercial loans	11,904	12,152
Total commercial	317,063	308,134
Consumer	12,134	10,656
Total	727,842	704,880
Less: allowance for loan losses	(7,929)	(7,889)
Loans, net	$719,913	$696,991

The Corporation grants loans to individuals as well as commercial and tax-exempt entities. Commercial, residential and personal loans are made to customers geographically concentrated in the Pennsylvania and New York counties that comprise the market serviced by Citizens & Northern Bank. Although the Corporation has a diversified loan portfolio, a significant portion of its debtors' ability to honor their contracts is dependent on the local economic conditions within the region. There is no concentration of loans to borrowers engaged in similar businesses or activities that exceed 10% of total loans at either June 30, 2016 or December 31, 2015.

The Corporation maintains an allowance for loan losses that represents management's estimate of the losses inherent in the loan portfolio as of the balance sheet date and recorded as a reduction of the investment in loans. The allowance for loan losses is maintained at a level considered adequate to provide for losses that can be reasonably anticipated. Management performs a quarterly evaluation of the adequacy of the allowance. The allowance is based on the Corporation's past loan loss experience, known and inherent risks in the portfolio, adverse situations that may affect the borrower's ability to repay, the estimated value of any underlying collateral, composition of the loan portfolio, current economic conditions and other relevant factors. This evaluation is inherently subjective as it requires material estimates that may be susceptible to significant revision as more information becomes available. In the process of evaluating the loan portfolio, management also considers the Corporation's exposure to losses from unfunded loan commitments. As of June 30, 2016 and December 31, 2015, management determined that no allowance for credit losses related to unfunded loan commitments was required.

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Transactions within the allowance for loan losses, summarized by segment and class, for the three-month and six-month periods ended June 30, 2016 and 2015 were as follows:

Three Months Ended June 30, 2016 (In Thousands)	March 31, 2016 Balance	Charge-offs	Recoveries	Provision (Credit)	June 30, 2016 Balance
Allowance for Loan Losses:					
Residential mortgage:					
Residential mortgage loans - first liens	$ 2,722	$ (42)	$ 0	$ 150	$ 2,830
Residential mortgage loans - junior liens	228	0	0	11	239
Home equity lines of credit	351	0	0	8	359
1-4 Family residential construction	200	0	0	22	222
Total residential mortgage	3,501	(42)	0	191	3,650
Commercial:					
Commercial loans secured by real estate	2,027	0	1	55	2,083
Commercial and industrial	976	0	0	62	1,038
Commercial construction and land	84	0	0	21	105
Loans secured by farmland	108	0	0	(5)	103
Multi-family (5 or more) residential	256	0	0	(8)	248
Agricultural loans	44	0	0	3	47
Other commercial loans	112	0	0	7	119
Total commercial	3,607	0	1	135	3,743
Consumer	126	(21)	12	21	138
Unallocated	427	0	0	(29)	398
Total Allowance for Loan Losses	$ 7,661	$ (63)	$ 13	$ 318	$ 7,929

Three Months Ended June 30, 2015 (In Thousands)	March 31, 2015 Balance	Charge-offs	Recoveries	Provision (Credit)	June 30, 2015 Balance
Allowance for Loan Losses:					
Residential mortgage:					
Residential mortgage loans - first liens	$ 2,774	$ (58)	$ 0	$ 59	$ 2,775
Residential mortgage loans - junior liens	200	0	0	10	210
Home equity lines of credit	322	0	0	22	344
1-4 Family residential construction	207	0	0	50	257
Total residential mortgage	3,503	(58)	0	141	3,586
Commercial:					
Commercial loans secured by real estate	1,736	0	0	(44)	1,692
Commercial and industrial	684	0	3	113	800
Commercial construction and land	286	0	0	10	296
Loans secured by farmland	159	0	0	(4)	155
Multi-family (5 or more) residential	81	0	0	(1)	80
Agricultural loans	29	0	0	11	40
Other commercial loans	123	0	0	(3)	120

Total commercial	3,098	0	3	82	3,183
Consumer	139	(19)	19	(4)	135
Unallocated	394	0	0	2	396
Total Allowance for Loan Losses	$ 7,134	$ (77)	$ 22	$ 221	$ 7,300

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Six Months Ended June 30, 2016 (In Thousands)	Dec. 31, 2015 Balance	Charge-offs	Recoveries	Provision (Credit)	June 30, 2016 Balance
Allowance for Loan Losses:					
Residential mortgage:					
Residential mortgage loans - first liens	$ 2,645	$ (42)	$ 0	$ 227	$ 2,830
Residential mortgage loans - junior liens	219	0	0	20	239
Home equity lines of credit	347	0	0	12	359
1-4 Family residential construction	207	0	0	15	222
Total residential mortgage	3,418	(42)	0	274	3,650
Commercial:					
Commercial loans secured by real estate	1,939	0	2	142	2,083
Commercial and industrial	981	0	1	56	1,038
Commercial construction and land	58	0	0	47	105
Loans secured by farmland	106	0	0	(3)	103
Multi-family (5 or more) residential	675	(595)	0	168	248
Agricultural loans	45	0	0	2	47
Other commercial loans	118	0	0	1	119
Total commercial	3,922	(595)	3	413	3,743
Consumer	122	(39)	27	28	138
Unallocated	427	0	0	(29)	398
Total Allowance for Loan Losses	$ 7,889	$ (676)	$ 30	$ 686	$ 7,929

Six Months Ended June 30, 2015 (In Thousands)	Dec. 31, 2014 Balance	Charge-offs	Recoveries	Provision (Credit)	June 30, 2015 Balance
Allowance for Loan Losses:					
Residential mortgage:					
Residential mortgage loans - first liens	$ 2,941	$ (137)	$ 1	$ (30)	$ 2,775
Residential mortgage loans - junior liens	176	0	0	34	210
Home equity lines of credit	322	0	0	22	344
1-4 Family residential construction	214	0	0	43	257
Total residential mortgage	3,653	(137)	1	69	3,586
Commercial:					
Commercial loans secured by real estate	1,758	(115)	0	49	1,692
Commercial and industrial	688	(10)	4	118	800
Commercial construction and land	283	0	0	13	296
Loans secured by farmland	165	0	0	(10)	155
Multi-family (5 or more) residential	87	0	0	(7)	80
Agricultural loans	31	0	0	9	40
Other commercial loans	131	0	0	(11)	120
Total commercial	3,143	(125)	4	161	3,183
Consumer	145	(37)	34	(7)	135
Unallocated	395	0	0	1	396
Total Allowance for Loan Losses	$ 7,336	$ (299)	$ 39	$ 224	$ 7,300

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

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

The following tables summarize the aggregate credit quality classification of outstanding loans by risk rating as of June 30, 2016 and December 31, 2015:

June 30, 2016 (In Thousands)	Pass	Special Mention	Substandard	Doubtful	Total
Residential Mortgage:					
Residential mortgage loans - first liens	$304,713	$562	$ 9,852	$ 64	$315,191
Residential mortgage loans - junior liens	21,591	154	414	0	22,159
Home equity lines of credit	38,030	423	601	0	39,054
1-4 Family residential construction	22,225	16	0	0	22,241
Total residential mortgage	386,559	1,155	10,867	64	398,645
Commercial:					
Commercial loans secured by real estate	135,738	5,941	11,391	0	153,070
Commercial and Industrial	77,197	3,509	1,558	126	82,390
Political subdivisions	41,026	0	0	0	41,026
Commercial construction and land	9,096	60	37	0	9,193
Loans secured by farmland	4,911	169	1,517	18	6,615
Multi-family (5 or more) residential	7,538	0	635	0	8,173
Agricultural loans	3,862	817	13	0	4,692

Other commercial loans	11,828	0	76	0	11,904
Total commercial	291,196	10,496	15,227	144	317,063
Consumer	11,922	1	211	0	12,134
Totals	$689,677	$11,652	$ 26,305	$ 208	$727,842

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December 31, 2015 (In Thousands)	Pass	Special Mention	Substandard	Doubtful	Total
Residential Mortgage:					
Residential mortgage loans - first liens	$295,302	$ 407	$ 9,007	$ 67	$304,783
Residential mortgage loans - junior liens	20,558	185	403	0	21,146
Home equity lines of credit	38,071	543	426	0	39,040
1-4 Family residential construction	21,104	17	0	0	21,121
Total residential mortgage	375,035	1,152	9,836	67	386,090
Commercial:					
Commercial loans secured by real estate	140,381	5,862	8,536	0	154,779
Commercial and Industrial	71,225	2,106	1,737	128	75,196
Political subdivisions	40,007	0	0	0	40,007
Commercial construction and land	4,957	60	105	0	5,122
Loans secured by farmland	5,084	483	1,432	20	7,019
Multi-family (5 or more) residential	7,943	0	1,245	0	9,188
Agricultural loans	4,655	0	16	0	4,671
Other commercial loans	12,073	0	79	0	12,152
Total commercial	286,325	8,511	13,150	148	308,134
Consumer	10,490	21	145	0	10,656
Totals	$671,850	$9,684	$ 23,131	$ 215	$704,880

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

The qualitative factors used in the general component calculations are designed to address credit risk characteristics associated with each segment. The Corporation’s credit risk associated with all of the segments is significantly impacted by these factors, which include economic conditions within its market area, the Corporation’s lending policies, changes or trends in the portfolio, risk profile, competition, regulatory requirements and other factors. Further, the residential mortgage segment is significantly affected by the values of residential real estate that provide collateral for the loans. The majority of the Corporation’s commercial segment loans (approximately 56% at June 30, 2016) is secured by real estate, and accordingly, the Corporation’s risk for the commercial segment is significantly affected by commercial real estate values. The consumer segment includes a wide mix of loans for different purposes, primarily secured loans, including loans secured by motor vehicles, manufactured housing and other types of collateral.

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

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The scope of loans evaluated individually for impairment include all loan relationships greater than $200,000 for which there is at least one extension of credit graded Special Mention, Substandard or Doubtful. Also, all loans classified as troubled debt restructurings (discussed in more detail below) and all loan relationships less than $200,000 in the aggregate, but with an estimated loss of $100,000 or more, are individually evaluated for impairment. Loans that are individually evaluated for impairment, but which are not determined to be impaired, are combined with all remaining loans that are not reviewed on a specific basis, and such loans are included within larger pools of loans based on similar risk and loss characteristics for purposes of determining the general component of the allowance. The loans that have been individually evaluated, but which have not been determined to be impaired, are included in the “Collectively Evaluated” column in the tables summarizing the allowance and associated loan balances as of June 30, 2016 and December 31, 2015.

The following tables present a summary of loan balances and the related allowance for loan losses summarized by portfolio segment and class for each impairment method used as of June 30, 2016 and December 31, 2015:

June 30, 2016 (In Thousands)	Loans:			Allowance for Loan Losses:		
	Individually Evaluated	Collectively Evaluated	Totals	Individually Evaluated	Collectively Evaluated	Totals
Residential mortgage:						
Residential mortgage loans - first liens	$824	$ 314,367	$315,191	$ 0	$ 2,830	$ 2,830
Residential mortgage loans - junior liens	71	22,088	22,159	0	239	239
Home equity lines of credit	0	39,054	39,054	0	359	359
1-4 Family residential construction	0	22,241	22,241	0	222	222
Total residential mortgage	895	397,750	398,645	0	3,650	3,650
Commercial:						
Commercial loans secured by real estate	5,856	147,214	153,070	125	1,958	2,083
Commercial and industrial	766	81,624	82,390	77	961	1,038
Political subdivisions	0	41,026	41,026	0	0	0
Commercial construction and land	0	9,193	9,193	0	105	105
Loans secured by farmland	1,408	5,207	6,615	51	52	103
Multi-family (5 or more) residential	392	7,781	8,173	0	248	248
Agricultural loans	13	4,679	4,692	0	47	47
Other commercial loans	0	11,904	11,904	0	119	119
Total commercial	8,435	308,628	317,063	253	3,490	3,743
Consumer	0	12,134	12,134	0	138	138
Unallocated						398
Total	$9,330	$ 718,512	$727,842	$ 253	$ 7,278	$ 7,929

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December 31, 2015 (In Thousands)	Loans:			Allowance for Loan Losses:		
	Individually Evaluated	Collectively Evaluated	Totals	Individually Evaluated	Collectively Evaluated	Totals
Residential mortgage:						
Residential mortgage loans - first liens	$884	$ 303,899	$304,783	$ 1	$ 2,644	$ 2,645
Residential mortgage loans - junior liens	74	21,072	21,146	0	219	219
Home equity lines of credit	0	39,040	39,040	0	347	347
1-4 Family residential construction	0	21,121	21,121	0	207	207
Total residential mortgage	958	385,132	386,090	1	3,417	3,418
Commercial:						
Commercial loans secured by real estate	6,262	148,517	154,779	97	1,842	1,939
Commercial and industrial	324	74,872	75,196	75	906	981
Political subdivisions	0	40,007	40,007	0	0	0
Commercial construction and land	0	5,122	5,122	0	58	58
Loans secured by farmland	1,427	5,592	7,019	52	54	106
Multi-family (5 or more) residential	987	8,201	9,188	595	80	675
Agricultural loans	16	4,655	4,671	0	45	45
Other commercial loans	0	12,152	12,152	0	118	118
Total commercial	9,016	299,118	308,134	819	3,103	3,922
Consumer	0	10,656	10,656	0	122	122
Unallocated						427
Total	$9,974	$ 694,906	$704,880	$ 820	$ 6,642	$ 7,889

Summary information related to impaired loans at June 30, 2016 and December 31, 2015 is as follows:

(In Thousands)	June 30, 2016			December 31, 2015		
	Unpaid Principal Balance	Recorded Investment	Related Allowance	Unpaid Principal Balance	Recorded Investment	Related Allowance
With no related allowance recorded:						
Residential mortgage loans - first liens	$824	$ 824	$ 0	$842	$ 842	$ 0
Residential mortgage loans - junior liens	71	71	0	74	74	0
Commercial loans secured by real estate	7,127	5,443	0	7,580	5,945	0
Commercial and industrial	412	412	0	249	249	0
Loans secured by farmland	900	900	0	915	915	0
Multi-family (5 or more) residential	987	392	0	0	0	0
Agricultural loans	13	13	0	16	16	0
Total with no related allowance recorded	10,334	8,055	0	9,676	8,041	0
With a related allowance recorded:						
Residential mortgage loans - first liens	0	0	0	42	42	1
Commercial loans secured by real estate	413	413	125	317	317	97

Commercial and industrial	354	354	77	75	75	75
Loans secured by farmland	508	508	51	512	512	52
Multi-family (5 or more) residential	0	0	0	987	987	595
Total with a related allowance recorded	1,275	1,275	253	1,933	1,933	820
Total	$11,609	$ 9,330	$ 253	$11,609	$ 9,974	$ 820

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

	Average Investment in Impaired Loans				Interest Income Recognized on Impaired Loans on a Cash Basis			
(In Thousands)	3 Months Ended		6 Months Ended		3 Months Ended		6 Months Ended	
	June 30,		June 30,		June 30,		June 30,	
	2016	2015	2016	2015	2016	2015	2016	2015
Residential mortgage:								
Residential mortgage loans - first lien	$ 833	$ 3,701	$ 847	$ 3,819	$ 12	$ 20	$ 22	$ 58
Residential mortgage loans - junior lien	71	66	72	57	1	1	2	2
Total residential mortgage	904	3,767	919	3,876	13	21	24	60
Commercial:								
Commercial loans secured by real estate	5,892	6,286	6,026	6,437	81	90	191	203
Commercial and industrial	754	423	661	513	7	5	10	12
Commercial construction and land	0	41	0	58	0	0	0	0
Loans secured by farmland	1,413	1,447	1,418	1,468	17	26	38	52
Multi-family (5 or more) residential	490	0	590	0	0	0	0	0
Agricultural loans	15	46	15	23	0	2	1	2
Total commercial	8,564	8,243	8,710	8,499	105	123	240	269
Consumer	18	0	15	0	0	0	0	0
Total	$ 9,486	$ 12,010	$ 9,644	$ 12,375	$ 118	$ 144	$ 264	$ 329

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

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

(In Thousands)	June 30, 2016	December 31, 2015
	Past	Past
	Due	Due

	90+ Days and Accruing	Nonaccrual	90+ Days and Accruing	Nonaccrual
Residential mortgage:				
Residential mortgage loans - first liens	$ 3,663	$ 2,739	$ 2,381	$ 3,044
Residential mortgage loans - junior liens	44	0	79	0
Home equity lines of credit	285	12	130	0
Total residential mortgage	3,992	2,751	2,590	3,044
Commercial:				
Commercial loans secured by real estate	135	5,592	503	5,730
Commercial and industrial	313	310	65	313
Loans secured by farmland	102	1,408	0	1,427
Multi-family (5 or more) residential	0	392	0	987
Agricultural loans	76	13	0	16
Total commercial	626	7,715	568	8,473
Consumer	36	38	71	0
Totals	$ 4,654	$ 10,504	$ 3,229	$ 11,517

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

The table below presents a summary of the contractual aging of loans as of June 30, 2016 and December 31, 2015:

(In Thousands)	As of June 30, 2016 Current & Past Due Less than 30 Days	Past Due 30-89 Days	Past Due 90+ Days	Total	As of December 31, 2015 Current & Past Due Less than 30 Days	Past Due 30-89 Days	Past Due 90+ Days	Total
Residential mortgage:								
Residential mortgage loans - first liens	$306,697	$ 3,852	$ 4,642	$315,191	$294,703	$ 6,156	$ 3,924	$304,783
Residential mortgage loans - junior liens	21,826	289	44	22,159	20,816	251	79	21,146
Home equity lines of credit	38,527	242	285	39,054	38,581	329	130	39,040
1-4 Family residential construction	22,241	0	0	22,241	21,121	0	0	21,121
Total residential mortgage	389,291	4,383	4,971	398,645	375,221	6,736	4,133	386,090
Commercial:								
Commercial loans secured by real estate	149,599	2,762	709	153,070	153,427	108	1,244	154,779
Commercial and industrial	81,927	139	324	82,390	75,002	118	76	75,196
Political subdivisions	41,026	0	0	41,026	40,007	0	0	40,007
Commercial construction and land	9,193	0	0	9,193	5,018	104	0	5,122
Loans secured by farmland	5,413	284	918	6,615	5,970	223	826	7,019
Multi-family (5 or more) residential	7,713	68	392	8,173	8,201	0	987	9,188
Agricultural loans	4,560	43	89	4,692	4,642	13	16	4,671
Other commercial loans	11,904	0	0	11,904	12,152	0	0	12,152
Total commercial	311,335	3,296	2,432	317,063	304,419	566	3,149	308,134
Consumer	11,979	81	74	12,134	10,537	48	71	10,656
Totals	$712,605	$ 7,760	$ 7,477	$727,842	$690,177	$ 7,350	$ 7,353	$704,880

Nonaccrual loans are included in the contractual aging in the immediately preceding table. A summary of the contractual aging of nonaccrual loans at June 30, 2016 and December 31, 2015 is as follows:

(In Thousands)	Current & Past Due Less than 30 Days	Past Due 30-89 Days	Past Due 90+ Days	Total
June 30, 2016 Nonaccrual Totals	$ 6,866	$ 815	$ 2,823	$10,504
December 31, 2015 Nonaccrual Totals	$ 7,100	$ 293	$ 4,124	$11,517

Loans whose terms are modified are classified as Troubled Debt Restructurings (TDRs) if the Corporation grants such borrowers concessions, and it is deemed that those borrowers are experiencing financial difficulty. Loans classified as TDRs are designated as impaired. The outstanding balance of loans subject to TDRs, as well as contractual aging information at June 30, 2016 and December 31, 2015 is as follows:

(In Thousands)	Current & Past Due Less than 30 Days	Past Due 30-89 Days	Past Due 90+ Days	Nonaccrual	Total
June 30, 2016 Totals	$ 989	$ 58	$ 81	$ 5,021	$6,149
December 31, 2015 Totals	$ 1,186	$ 0	$ 81	$ 5,097	$6,364

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The TDR that occurred during the three-month period ended June 30, 2016 is as follows:

Three Months Ended June 30, 2016 (Balances in Thousands)	Number of Contracts	Pre-Modification Outstanding Recorded Investment	Post-Modification Outstanding Recorded Investment
Commercial,			
Commercial and industrial	1	$ 102	$ 102

There were no TDRs that occurred during the three-month period ended June 30, 2015.

The TDR in the three-month period ended June 30, 2016 resulted from an extension of a final maturity date and a lowered interest rate. There was a $30,000 allowance for loan losses on this loan at June 30, 2016 as compared to no allowance for loan losses on the loan prior to the second quarter 2016.

TDRs that occurred during the six-month periods ended June 30, 2016 and 2015 were as follows:

Six Months Ended June 30, 2016 (Balances in Thousands)	Number of Contracts	Pre-Modification Outstanding Recorded Investment	Post-Modification Outstanding Recorded Investment
Commercial,			
Commercial and industrial	2	$ 107	$ 107

Six Months Ended June 30, 2015 (Balances in Thousands)	Number of Contracts	Pre-Modification Outstanding Recorded Investment	Post-Modification Outstanding Recorded Investment
Residential mortgage:			
Residential mortgage loans - first liens	1	$ 56	$ 56
Residential mortgage loans - junior liens	1	32	32
Consumer	1	30	30

The TDRs in the six-month period ended June 30, 2016 included an extension of a final maturity date and a lowered interest rate on one contract and an extension of a final maturity date on one contract. There was a $30,000 allowance for loan losses on the commercial and industrial loan that included an extension of a final maturity date and a lowered interest rate at June 30, 2016 as compared to no allowance for loan losses on the loan at December 31, 2015. There was no allowance for loan losses at June 30, 2016 on the other commercial and industrial loan (TDR), and no change in the allowance for loan losses resulting from that TDR in the six-month period ended June 30, 2016.

The TDRs in the six-month period ended June 30, 2015 included an extended maturity date and a reduction in interest rate on a residential mortgage – first lien, a lowered interest rate and reduced payment amount on a residential mortgage – junior lien and a lowered interest rate and reduced payment amount on the consumer loan. There was no allowance for loan losses on these loans at June 30, 2015, and no change in the allowance for loan losses resulting from these TDRs.

In the three-month period ended June 30, 2016, defaults on loans for which modifications considered to be TDRs were entered into within the previous 12 months were as follows:

	Number of Contracts	Recorded Investment
Three Months Ended June 30, 2016		
(Balances in Thousands)		
Residential mortgage:		
Residential mortgage loans - first liens	1	$ 242
Residential mortgage loans - junior liens	1	30
Consumer	1	28

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There were no defaults on loans for which modification considered to be TDRs were entered into within the previous 12 months in the three-month period ended June 30, 2015.

In the six-month period ended June 30, 2016, the events of default in the table listed above resulted from a borrower's failure to pay in a timely manner after reduced payment amounts for six months expired on the Residential mortgage – first lien and a borrower's failure to pay in a timely manner after lowered interest rates and reduced payment amounts on the Residential mortgage – junior lien and on the Consumer loan. There was no allowance for loan losses recorded on these loans at June 30, 2016.

In the six-month periods ended June 30, 2016 and 2015, defaults on loans for which modifications considered to be TDRs were entered into within the previous 12 months were as follows:

	Number of Contracts	Recorded Investment
Six Months Ended June 30, 2016		
(Balances in Thousands)		
Residential mortgage:		
Residential mortgage loans - first liens	2	$ 273
Residential mortgage loans - junior liens	1	30
Commercial,		
Commercial and industrial	1	5
Consumer	1	28

	Number of Contracts	Recorded Investment
Six Months Ended June 30, 2015		
(Balances in Thousands)		
Residential mortgage,		
Residential mortgage loans - first liens	2	$ 115
Commercial:		
Commercial loans secured by real estate	1	407
Commercial construction and land	1	25

In the six-month period ended June 30, 2016, the events of default in the table listed above resulted from the borrowers' failure to make timely payments under the following circumstances: (1) for one customer relationship included in the Residential first lien mortgage class, timely payment was missed after payment amounts were reduced for six months; (2) for the other customer relationship in the Residential first lien mortgage class, payment was missed after the monthly payment amount was reduced for six months; (3) for the customer relationships in the Residential junior lien mortgage class and the consumer class, timely payments were missed after interest rates and payment amounts were reduced on both loans; and (4) for the Commercial and industrial loan, the borrower failed to pay off the loan at the extended maturity date.

In the six-month period ended June 30, 2015, the events of default in the table listed above resulted from the borrowers' failure to make timely payments under the following circumstances: (1) for one customer relationship included in the Residential first lien mortgage class, payment was missed after the interest rate and monthly payment amount had been reduced; (2) for the other customer relationship included in the Residential first lien class, monthly payments were missed after reducing the monthly payments to interest only payments; (3) for the Commercial loan secured by real estate, monthly payments were missed after reducing the monthly payments to interest only; and (4) for the Commercial construction and land loan, monthly payments were missed after extending the term of maturity. There were no allowances for loan losses recorded on these loans at June 30, 2015.

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

(In Thousands)	June 30, 2016	Dec. 31, 2015
Foreclosed residential real estate	$ 1,005	$ 556

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

(In Thousands)	June 30, 2016	Dec. 31, 2015
Residential real estate in process of foreclosure	$ 1,598	$ 1,173

8. BORROWED FUNDS

Short-term borrowings include the following:

(In Thousands)	June 30, 2016	Dec. 31, 2015
FHLB-Pittsburgh borrowings	$20,041	$48,581
Customer repurchase agreements	5,661	4,915
Total short-term borrowings	$25,702	$53,496

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

(In Thousands)	June 30, 2016	Dec. 31 2015
Overnight borrowing	$7,500	$23,500
Other short-term advances	12,541	25,081
Total short-term FHLB-Pittsburgh borrowings	$20,041	$48,581

The FHLB-Pittsburgh loan facilities are collateralized by qualifying loans secured by real estate with a book value totaling $454,935,000 at June 30, 2016 and $450,883,000 at December 31, 2015. Also, the FHLB-Pittsburgh loan facilities require the Corporation to invest in established amounts of FHLB-Pittsburgh stock. The carrying values of the Corporation's holdings of FHLB-Pittsburgh stock (included in Other Assets) were $3,485,000 at June 30, 2016 and $4,527,000 at December 31, 2015.

At June 30, 2016, short-term borrowings from the FHLB-Pittsburgh include 6 advances of approximately $2,090,000 each, maturing monthly throughout the remainder of the year ending December 31, 2016, with a weighted average interest rate of 0.99% and rates ranging from 0.92% to 1.052%. In the first six months 2016, the Corporation repaid six advances of approximately $2,090,000 each, with a weighted average rate of 0.72%.

The Corporation engages in repurchase agreements with certain commercial customers. These agreements provide that the Corporation sells specified investment securities to the customers on an overnight basis and repurchases them on the following business day. The weighted average interest rate paid by the Corporation on customer repurchase agreements was 0.10% at June 30, 2016 and December 31, 2015. The carrying value of the underlying securities was $17,218,000 at June 30, 2016 and $12,613,000 at December 31, 2015.

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Long-term borrowings are as follows:

(In Thousands)	June 30, 2016	Dec. 31, 2015
FHLB-Pittsburgh borrowings	$11,615	$11,767
Repurchase agreement	27,000	27,000
Total long-term borrowings	$38,615	$38,767

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

(In Thousands)	June 30, 2016	Dec. 31, 2015
Loan maturing in 2016 with a rate of 6.86%	$32	$57
Loan maturing in 2017 with a rate of 6.83%	7	10
Loan maturing in 2017 with a rate of 3.81%	10,000	10,000
Loan maturing in 2020 with a rate of 4.79%	734	821
Loan maturing in 2025 with a rate of 4.91%	842	879
Total long-term FHLB-Pittsburgh borrowings	$11,615	$11,767

The repurchase agreement included in long-term borrowings has an interest rate of 3.595% and an effective maturity date in December 2017.

The “Repurchase Date,” as defined in the Master Repurchase Agreement between the Corporation and the broker-dealer, occurs quarterly on or about the 20th of each March, June, September and December until the “Final Repurchase Date” (as defined) on December 20, 2017. The Corporation pays interest, and the borrowing is putable by the issuer, on each Repurchase Date. The Final Repurchase Date is the effective maturity date of the borrowing.

Securities sold under repurchase agreements were delivered to the broker-dealer who is the counter-party to the transactions. The broker-dealer may have sold, loaned or otherwise disposed of such securities to other parties in the normal course of their operations, and has agreed to resell to the Corporation substantially identical securities at the maturities of the agreements. The Master Repurchase Agreement provides that the Agreement constitutes a “netting contract,” as defined; however, the Corporation and the broker-dealer have no other obligations to one another and accordingly, no netting has occurred.

The carrying value of the underlying securities was $36,117,000 at June 30, 2016 and $33,780,000 at December 31, 2015, detailed in the following table:

(In Thousands)	June 30, 2016	Dec. 31, 2015
Mortgage-backed securities	$20,116	$15,772
Collateralized mortgage obligations, Issued by U.S. Government agencies	16,001	18,008
Total	$36,117	$33,780

Two of the more significant risks associated with the repurchase agreement with the broker-dealer are as follows:

- The borrowings are putable at quarterly intervals by the issuer. Accordingly, if interest rates were to rise to a sufficient level, the issuer would be expected to require the Corporation to pay off the borrowing. In this circumstance, the Corporation would be required to obtain a new borrowing at a higher interest rate than the existing repurchase agreement or utilize cash from other sources to pay off the borrowing. If sales of available-for-sale securities were used to generate cash to pay off the borrowing, the value of such securities would be expected to have fallen, which could result in the Corporation recognizing a loss.

- As principal pay-downs of mortgage backed securities and CMOs occur, the Corporation must have available, unencumbered assets or purchase a sufficient amount of assets with credit quality suitable to the broker-dealer to replace the amounts being paid off. Since pre-payments of mortgages typically increase as interest rates fall, the Corporation may be required to purchase additional assets at times when market rates are lower than the rates paid on the borrowing.

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The Corporation manages these risks by maintaining sufficient available assets of acceptable credit quality, as well as maintaining other borrowing facilities, to meet ongoing collateral maintenance requirements or pay off the borrowing if required. In particular, the Corporation had unused borrowing capacity available from the FHLB-Pittsburgh of $294,373,000 at June 30, 2016.

9. DEFINED BENEFIT PLANS

The Corporation sponsors a defined benefit health care plan that provides postretirement medical benefits and life insurance to employees who meet certain age and length of service requirements. Full-time employees no longer accrue service time toward the Corporation-subsidized portion of the medical benefits. This plan contains a cost-sharing feature, which causes participants to pay for all future increases in costs related to benefit coverage. Accordingly, actuarial assumptions related to health care cost trend rates do not significantly affect the liability balance at June 30, 2016 and December 31, 2015, and are not expected to significantly affect the Corporation's future expenses. The Corporation uses a December 31 measurement date for the postretirement plan.

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

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

Defined Benefit Plans				
(In Thousands)	Pension		Postretirement	
	Six Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Service cost	$ 0	$ 0	$ 18	$ 19
Interest cost	13	18	31	28
Expected return on plan assets	(13)	(23)	0	0
Amortization of prior service cost	0	0	(15)	(15)
Recognized net actuarial loss	5	7	0	0
Net periodic benefit cost	$ 5	$ 2	$ 34	$ 32

(In Thousands)	Pension	Postretirement

	Three Months Ended June 30,		Three Months Ended June 30,	
	2016	2015	2016	2015
Service cost	$ 0	$ 0	$ 9	$ 9
Interest cost	6	9	15	15
Expected return on plan assets	(6)	(12)	0	0
Amortization of prior service cost	0	0	(7)	(8)
Recognized net actuarial loss	2	3	0	0
Net periodic benefit cost	$ 2	$ 0	$ 17	$ 16

In the first six months of 2016, the Corporation funded postretirement contributions totaling $31,000, with estimated annual postretirement contributions of $68,000 expected in 2016 for the full year. Based upon the related actuarial reports, no defined benefit pension contributions are required in 2016, though the Corporation may make discretionary contributions.

10. STOCK-BASED COMPENSATION PLANS

The Corporation has a Stock Incentive Plan for a selected group of officers and an Independent Directors Stock Incentive Plan. In the three-month periods ended March 31, 2016 and 2015, the Corporation issued restricted stock under each of the Plans.

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In the first quarter 2016, the Corporation awarded a total of 34,199 shares of restricted stock under the Stock Incentive and Independent Directors Stock Incentive Plans. Restricted stock awards in the first quarter 2016 included the following: (1) a total of 17,289 shares to employees, vesting over a three-year term, with vesting contingent upon the Corporation meeting an annual return on average equity ("ROAE") performance ratio, as defined; (2) a total of 10,304 shares to employees, vesting over a three-year term, with vesting dependent on satisfactory performance; and (3) a total of 6,606 shares under the Independent Directors Incentive Plan, vesting over a term of one year.

In the second quarter 2016, the Corporation awarded a total of 1,228 shares of restricted stock under the Independent Directors Stock Incentive Plan. The restricted stock was awarded to two new directors, with each award vesting over a term of one year.

In the first quarter 2015, a total of 34,800 shares of restricted stock were awarded under the Plans. Restricted stock awards in 2015 included the following: (1) a total of 20,298 shares to employees, vesting over a four-year term, with vesting contingent upon the Corporation meeting an annual ROAE performance ratio, as defined; (2) a total of 2,198 shares to employees, vesting over a four-year term, with vesting dependent on satisfactory performance; (3) an award to the Chief Executive Officer of 5,174 shares, vesting over a three-year term, with vesting dependent on satisfactory performance; and (4) a total of 7,130 shares under the Independent Directors Incentive Plan, vesting over a term of one year.

Compensation cost related to restricted stock is recognized based on the market price of the stock at the grant date over the vesting period. Management has estimated restricted stock expense in the first six months of 2016 based on an assumption that the ROAE target for 2016 will be met.

Total stock-based compensation expense is as follows:

(In Thousands)	3 Months Ended		6 Months Ended	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
Restricted stock	$ 163	$ 157	$ 325	$ 307

11. INCOME TAXES

The net deferred tax asset at June 30, 2016 and December 31, 2015 represents the following temporary difference components:

(In Thousands)	June 30, 2016	December 31, 2015
Deferred tax assets:		
Net realized losses on securities	$ 36	$ 69
Allowance for loan losses	2,775	2,761
Other deferred tax assets	2,359	2,634
Total deferred tax assets	5,170	5,464
Deferred tax liabilities:		
Unrealized holding gains on securities	3,686	1,342
Defined benefit plans - ASC 835	25	19
Bank premises and equipment	916	869
Core deposit intangibles	8	11
Other deferred tax liabilities	110	108
Total deferred tax liabilities	4,745	2,349
Deferred tax asset, net	$ 425	$ 3,115

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The provision for income tax for the three-month and six month periods ended June 30, 2016 and 2015 is based on the Corporation's estimate of the effective tax rate expected to be applicable for the full year. The effective tax rates for the Corporation are as follows:

(In thousands)	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Income before income tax provision	$ 5,174	$ 5,809	$ 9,840	$ 10,853
Income tax provision	1,303	1,452	2,396	2,681
Effective tax rate	25.18 %	25.00 %	24.35 %	24.70 %

The effective tax rate for each period presented differs from the statutory rate of 35% principally because of the effects of tax-exempt interest income.

The Corporation has investments in three limited partnerships that manage affordable housing projects that have qualified for the federal low-income housing tax credit. The Corporation's expected return from these investments is based on the receipt of tax credits and tax benefits from deductions of operating losses. The Corporation uses the effective yield method to account for these investments, with the benefits recognized as a reduction of the provision for income taxes. For two of the three limited partnership investments, the tax credits have been received in full in prior years, and the Corporation has fully realized the benefits of the credits and amortized its initial investments in the partnerships. The most recent affordable housing project was completed in 2013, and the Corporation received tax credits in 2013, 2014 and 2015 and expects to continue to receive tax credits annually through 2022. The carrying amount of the Corporation's investment is $762,000 at June 30, 2016 and $812,000 at December 31, 2015 (included in Other Assets in the consolidated balance sheets). For the year ending December 31, 2016, the estimated amount of tax credits and other tax benefits to be received is $158,000 and the estimated amount to be recognized as a reduction of the provision for income taxes is $76,000. For the year ended December 31, 2015, tax credits and other tax benefits totaled $158,000 and the amount recognized as a reduction of the provision for income taxes for 2015 was $80,000. The total reduction in the provision for income taxes resulting from this investment is $19,000 in the second quarter 2016, and $38,000 for the six months ended June 30, 2016, and $20,000 in the second quarter 2015, and $41,000 for the six months ended June 30, 2015.

The Corporation has no unrecognized tax benefits, nor pending examination issues related to tax positions taken in preparation of its income tax returns. With limited exceptions, the Corporation is no longer subject to examination by the Internal Revenue Service for years prior to 2012.

12. CONTINGENCIES

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

13. RECENT ACCOUNTING PRONOUNCEMENTS

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

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers, which provides a principles-based framework for revenue recognition that supersedes virtually all previously issued revenue recognition guidance under U.S. GAAP. Additionally, the ASU requires improved disclosures to help users of financial statements better understand the nature, amount, timing, and uncertainty of revenue that is recognized. The core principle of the five-step revenue recognition framework is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In April 2016, the FASB issued ASU 2016-10, which provides clarifying information related to identifying performance obligations and licensing. In May 2016, the FASB issued ASU 2016-12, which provides clarifying guidance in a few narrow areas and adds some practical expedients to the guidance. In August 2015 the FASB issued ASU 2015-14, which deferred the effective date of the revenue recognition standard by a year, making it applicable for the Corporation in the first quarter 2018 and for the annual period ending December 31, 2018. The amendments should be applied either retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying the amendments recognized at the date of initial application. The Corporation is in the process of evaluating the potential impact of adopting the amendments, including determining which transition method to apply.

In January 2016, the FASB issued ASU 2016-01, Recognition and Measurement of Financial Assets and Liabilities. This makes significant changes in U.S. GAAP related to certain aspects of recognition, measurement, presentation and disclosure of financial instruments. The changes provided for in this Update that are applicable to the Corporation are as follows: (1) require equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income; however, an entity may choose to measure equity investments that do not have readily determinable fair values at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer; (2) for equity investments without readily determinable fair values, require a qualitative assessment to identify impairment, and if a qualitative assessment indicates that impairment exists, requiring an entity to measure the investment at fair value; (3) eliminate the requirement for public business entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet; (4) require public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes; (5) require an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments (at March 31, 2016 and December 31, 2015, the Corporation has no liabilities for which the fair value measurement option has been elected); (6) require separate presentation of financial assets and financial liabilities by measurement category and form of financial asset (that is, securities or loans and receivables) on the balance sheet or the accompanying notes to the financial statements; and (7) clarify that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets. The amendments in this Update will become effective for the Corporation for annual and interim periods beginning in the first quarter 2018. With limited exceptions, early adoption of the amendments in this Update is not permitted. Amendments are to be applied by means of a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption. The amendments related to equity securities without readily determinable fair values should be applied prospectively.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). The core principle of Topic 842 is that a lessee should recognize the assets and liabilities that arise from leases. Specifically, a lessee should recognize on the balance sheet a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. For leases with a term of 12 months or less, a lessee would be permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and liabilities. Topic 842 would not significantly change the recognition, measurement and presentation of expenses and cash flows arising from a lease by a lessee from current U.S. GAAP; however, the principal change from current GAAP is that lease assets and liabilities arising from operating leases would be recognized on the balance sheet. Topic 842 provides several other changes or clarifications to existing GAAP, and will require qualitative disclosures, along with quantitative disclosures, so that financial statement users can understand more about the nature of an entity's leasing activities. In transition, Topic 842 provides that lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach, including optional practical expedients. An entity that elects to apply the practical expedients will, in effect, continue to account for leases that commence before the effective date in accordance with previous GAAP unless the lease is modified, except that lessees will be required to recognize a right-of-use asset and a lease liability for all operating leases at each reporting date based on the present value of the remaining minimum rental payments that were tracked and disclosed under previous GAAP. Topic 842 will become effective for the Corporation for annual and interim periods beginning in the first quarter 2019.

In March 2016, the FASB issued ASU No. 2016-07, Investments – Equity Method and Joint Ventures. This ASU eliminates the requirement that when an investment qualifies for the equity method as a result of an increase in the level of ownership interest or influence, an investor must adjust the investment, results of operations and retained earnings retroactively as if the equity method had been in effect during all previous periods the investment had been held. The ASU requires the equity method investor to add the cost of acquiring an additional interest in the investee to the basis of the investor's previously held interest and adopt the equity method of accounting as of the date the investment becomes qualified for the equity method. The ASU further requires that an entity that has an available-for-sale equity security that becomes qualified for the equity method recognize through earnings the unrealized gain or loss in accumulated other comprehensive income at the date the investment becomes qualified for use of the equity method. The amendments in this Update are effective for the Corporation for annual and interim periods beginning in the first quarter 2017, with earlier application permitted. The amendments should be applied prospectively upon their effective date.

In March 2016, the FASB issued ASU No. 2016-09, Compensation – Stock Compensation. This ASU changes several aspects of accounting for share-based payment transactions, and includes some changes that apply only to nonpublic companies. This Update includes amendments that currently apply, or may apply in the future, to the Corporation related to the following: (1) accounting for the difference between the deduction for tax purposes and the amount of compensation cost recognized for financial reporting purposes; (2) classification of excess tax benefits on the statement of cash flows; (3) accounting for forfeitures; (4) accounting for awards partially settled in cash in excess of the employer's minimum statutory tax withholding requirements; and (5) classification of employee taxes paid on the statement of cash flows when an employer withholds shares for tax-withholding purposes. The amendments in this Update are effective for the Corporation for annual and interim periods beginning in the first quarter 2017, with earlier adoption permitted. The ASU provides separate transition provisions for each of the amendments. The Corporation is in the process of evaluating the potential impact of adopting the amendments.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments-Credit Losses (Topic 326). This ASU will result in significant changes in the Corporation's accounting for credit losses related to loans receivable and investment securities. A summary of significant provisions of this ASU is as follows:

- The ASU requires that a financial asset (or a group of financial assets) measured at amortized cost basis be presented, net of a valuation allowance for credit losses, at an amount expected to be collected on the financial asset(s), and that the income statement include the measurement of credit losses for newly recognized financial assets as well as changes in expected losses on previously recognized financial assets. The provisions of this ASU require measurement of expected credit losses based on relevant information including past events, historical experience, current conditions, and reasonable and supportive forecasts that affect the collectability of the asset. The provisions of this ASU differ from current U.S. GAAP in that current U.S. GAAP generally delays recognition of the full amount of credit losses until the loss is probable of occurring.

- The amendments in the Update retain many of the disclosure requirements related to credit quality in current U.S. GAAP, updated to reflect the change from an incurred loss methodology to an expected credit loss methodology. In addition, the Update requires that disclosure of credit quality indicators in relation to the amortized cost of financing receivables, a current requirement, be further disaggregated by year of origination.

- This ASU requires that credit losses on available-for-sale debt securities be presented as an allowance rather than as a write-down, and limits the amount of the allowance for credit losses to the amount by which the fair value is below amortized cost. For purchased available-for-sale securities with a more-than-insignificant amount of credit deterioration since origination, the ASU requires an allowance be determined in a manner similar to other available-for-sale debt securities; however, the initial allowance would be added to the purchase price, with only subsequent changes in the allowance recorded in credit loss expense, and interest income recognized at the effective rate excluding the discount embedded in the purchase price related to estimated credit losses at acquisition.

- This ASU will be effective for the Corporation for interim and annual periods beginning in the first quarter of 2020. Earlier adoption is permitted beginning in the first quarter of 2019. The entity will record the effect of implementing this ASU through a cumulative-effect adjustment through retained earnings as of the beginning of the reporting period in which Topic 326 is effective. The Corporation is in the early stages of evaluating the potential impact of adopting this amendment.

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ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

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

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

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

EARNINGS OVERVIEW

Second quarter 2016 net income was $0.32 per basic and diluted share, as compared to $0.29 in the first quarter 2016 and $0.36 in the second quarter 2015. For the six months ended June 30, 2016, net income per basic and diluted share was $0.61 as compared to $0.67 per basic and diluted share for the first six months of 2015. The return on average assets for the first six months of 2016 was 1.22%, and the return on average equity was 7.94%.

Some of the more significant fluctuations in revenues and expenses between the three-month period ended June 30, 2016 and the corresponding period in 2015 were as follows:

- Net interest income was lower by $11,000, or 0.1%, in the second quarter 2016 as compared to the second quarter 2015. The net interest margin for the second quarter 2016 was 0.07% higher than in the second quarter 2015 due to a lower cost of borrowed funds and a more favorable mix of earning assets. The average balance of total borrowed funds was $61,874,000 at an average interest rate of 2.62% in the second quarter 2016, down from average borrowings of $78,396,000 at an average interest rate of 3.57% in the second quarter 2015. The reduction in amount and average rate on borrowed funds reflects the impact of prepayments in the second and fourth quarters of 2015 of a long-term borrowing with an interest rate of 4.265%. Average total loans outstanding were higher by $70.7 million (11.0%) in the second quarter 2016 as compared to the second quarter 2015, while average total available-for-sale securities were lower by $99.9 million. The average balance of earning assets fell $26.5 million, reflecting a reduction in funding available for investment, as average total deposits decreased $12.5 million (1.3%).

- The second quarter 2016 provision for loan losses was $97,000 higher than the comparative second quarter 2015 amount. The provision in the second quarter 2016 included the impact of increasing the allowance for loan losses for the effects of loan growth and slight increases in qualitative factor percentages used in determining the collectively evaluated portion of the allowance.

- Noninterest revenue in the second quarter 2016 was lower by $56,000 (1.4%) than the second quarter 2015 amount. Service charges on deposit accounts were $141,000 (10.8%) lower, reflecting a reduced volume of consumer overdrafts, and the fair value of mortgage servicing rights decreased $108,000 in the second quarter 2016 compared to a $33,000 decrease in the second quarter 2015. Net gains from sales of loans in the second quarter 2016 exceeded the corresponding second quarter 2015 amount by $112,000, or 61.2%, reflecting higher volume of sales. Other operating income was $82,000 higher in the second quarter 2016 as compared to the second quarter 2015, including increases in dividend income from Federal Home Loan Bank of Pittsburgh stock and in revenue from redemption of tax credits.

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- Realized gains from securities totaled $122,000 in the second quarter 2016. In comparison, in the second quarter 2015, C&N generated gains from sales of securities totaling $932,000, and also incurred a loss from prepayment of borrowings totaling $910,000. In the second quarter 2015, C&N prepaid principal of $10 million on a long-term borrowing (repurchase agreement) with an interest rate of 4.265%.

- Noninterest expenses, excluding loss on prepayment of borrowings, in the second quarter 2016 exceeded the second quarter 2015 amount by $571,000 (7.2%). Salaries and wages expense increased $310,000 (8.6%), reflecting an increase in number of employees, including new positions established for lending, lending support, information technology, training, human resources and marketing functions. Professional fees expense increased $142,000 in the second quarter 2016 over the second quarter 2015 amount, including increases related to employee sales and service training, information technology, marketing and outsourced commercial loan credit review.

Some of the more significant fluctuations in revenues and expenses between the six-month period ended June 30, 2016 and the corresponding period in 2015 were as follows:

- For the first six months of 2016, net interest income was $72,000, or 0.4%, higher than the comparable total for the first six months of 2015. Consistent with the trends described above, the net interest margin was 0.08% higher than the margin for the first six months of 2015, reflecting a lower cost of borrowed funds resulting from prepayment in 2015 of a long-term borrowing and a more favorable mix of earning assets. The average balance of total borrowed funds was $68,141,000 at an average interest rate of 2.44% for the first six months of 2016, down from average borrowings of $78,715,000 at an average interest rate of 3.65% in the first six months of 2015. Average total loans outstanding were higher by $73.9 million (11.7%) in the first six months of 2016 as compared to the first six months of 2015, while average total available-for-sale securities were lower by $97.2 million. The average balance of earning assets fell $25.1 million, reflecting a reduction in funding available for investment, as average total deposits decreased $17.0 million (1.7%).

- The provision for loan losses for the six months ended June 30, 2016 exceeded the corresponding amount for the first six months of 2015 by $462,000. The provision in 2016 included the impact of increasing the allowance for loan losses for the effects of loan growth and slight increases in net charge-off experience and qualitative factors used in determining the collectively evaluated portion of the allowance. In comparison, the provision in 2015 also reflected the effects of loan growth, but the qualitative factors used in determining a portion of the collectively determined allowance for loan allowances were slightly decreased during the period.

- Noninterest revenue increased $78,000 (1.0%) in the first six months of 2016 as compared to the total for the first six months of 2015. Net gains from sales of loans increased $133,000, or 40.3%, reflecting higher volume of sales. Other operating income increased $99,000, mainly due to an increase in revenue from redemption of tax credits. Brokerage revenue decreased $72,000, as the volume of sales of annuities declined.

- In the first six months of 2016, realized gains from securities totaled $505,000, including gains from sales of bank stocks of $277,000. In the first six months of 2015, C&N generated gains from sales of securities totaling $1,006,000, including gains from sales of bank stocks of $476,000, and also incurred the loss from prepayment of a borrowing described above of $910,000.

- Noninterest expenses, excluding loss on prepayment of borrowings, in the first six months of 2016 exceeded the amount for the first six months of 2015 by $1,110,000 (6.7%). Salaries and wages expense increased $710,000 (10.0%). As described above, several new positions were established in the latter portion of 2015 and early 2016. Professional fees expense increased $275,000, including increases related to employee sales and service training, information technology, marketing and outsourced commercial loan credit review.

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

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TABLE I - QUARTERLY FINANCIAL DATA

(In Thousands) (Unaudited)	For the Three Months Ended:					
	June 30, 2016	Mar. 31, 2016	Dec. 31, 2015	Sept. 30, 2015	June 30, 2015	Mar. 31, 2015
Interest income	$10,924	$10,937	$11,036	$11,134	$11,186	$11,163
Interest expense	925	904	1,087	1,126	1,176	1,213
Net interest income	9,999	10,033	9,949	10,008	10,010	9,950
Provision for loan losses	318	368	319	302	221	3
Net interest income after provision for loan losses	9,681	9,665	9,630	9,706	9,789	9,947
Other income	3,906	3,690	3,999	3,961	3,962	3,556
Net gains on available-for-sale securities	122	383	1,776	79	932	74
Loss on prepayment of borrowings	0	0	1,663	0	910	0
Other expenses	8,535	9,072	8,416	8,117	7,964	8,533
Income before income tax provision	5,174	4,666	5,326	5,629	5,809	5,044
Income tax provision	1,303	1,093	1,261	1,395	1,452	1,229
Net income	$3,871	$3,573	$4,065	$4,234	$4,357	$3,815
Net income per share – basic	$0.32	$0.29	$0.33	$0.35	$0.36	$0.31
Net income per share – diluted	$0.32	$0.29	$0.33	$0.35	$0.36	$0.31

CRITICAL ACCOUNTING POLICIES

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

A material estimate that is particularly susceptible to significant change is the determination of the allowance for loan losses. Management believes the allowance for loan losses is adequate and reasonable. Analytical information related to the Corporation’s aggregate loans and the related allowance for loan losses is summarized by loan segment and classes of loans in Note 7 to the unaudited consolidated financial statements. Additional discussion of the Corporation’s allowance for loan losses is provided in a separate section later in Management’s Discussion and Analysis. Given the very subjective nature of identifying and valuing loan losses, it is likely that well-informed individuals could make materially different assumptions, and could, therefore calculate a materially different allowance value. While management uses available information to recognize losses on loans, changes in economic conditions may necessitate revisions in future years. In addition, various regulatory agencies, as an integral part of their examination process, periodically review the Corporation’s allowance for loan losses. Such agencies may require the Corporation to recognize adjustments to the allowance based on their judgments of information available to them at the time of their examination.

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

As described in Note 6 to the unaudited consolidated financial statements, management evaluates securities for other-than-temporary impairment (OTTI). In making that evaluation, consideration is given to (1) the length of time and the extent to which the fair value has been less than cost, (2) the financial condition and near-term prospects of the issuer, and (3) whether the Corporation intends to sell the security or more likely than not will be required to sell the security before its anticipated recovery. Management's assessments of the likelihood and potential for recovery in value of securities are subjective and based on sensitive assumptions.

NET INTEREST INCOME

The Corporation's primary source of operating income is net interest income, which is equal to the difference between the amounts of interest income and interest expense. Tables II, III and IV include information regarding the Corporation's net interest income for the three-month and six-month periods ended June 30, 2016 and June 30, 2015. In each of these tables, the amounts of interest income earned on tax-exempt securities and loans have been adjusted to a fully taxable-equivalent basis. Accordingly, the net interest income amounts reflected in these tables exceed the amounts presented in the consolidated financial statements. The discussion that follows is based on amounts in the related Tables.

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Six-Month Periods Ended June 30, 2016 and 2015

For the six-month periods, fully taxable equivalent net interest income was $21,428,000 in 2016, $11,000 (0.1%) higher than in 2015. Interest income was $549,000 lower in 2016 as compared to 2015; however, interest expense was lower by $560,000 in comparing the same periods. As presented in Table III, the Net Interest Margin was 3.79% in 2016 as compared to 3.71% in 2015, and the “Interest Rate Spread” (excess of average rate of return on earning assets over average cost of funds on interest-bearing liabilities) was 3.66% in 2016 as compared to 3.55% in 2015.

INTEREST INCOME AND EARNING ASSETS

Interest income totaled $23,257,000 in 2016, a decrease of 2.3% from 2015. Interest and fees on loans receivable increased $844,000, or 5.1%. The average balance of gross loans receivable increased $73,894,000, or 11.7%, to $706,759,000 in 2016 from $632,865,000 in 2015. The Corporation experienced significant growth in both commercial and mortgage loans outstanding. Growth in commercial loans included an increase of approximately $25 million in the average outstanding balance of participation loans in the first six months of 2016 as compared to the first six months of 2015. The Corporation’s average rate of return on loans receivable declined to 4.96% in 2016 from 5.29% in 2015 as average interest rates on new loans are lower, reflecting recent market conditions.

As indicated in Table III, average available-for-sale securities (at amortized cost) totaled $408,773,000 in 2016, a decrease of $97,180,000 (19.2%) from 2015. The net decrease in the Corporation’s available-for-sale securities portfolio consisted of decreases in all categories of securities with the exception of commercial mortgage-backed securities. The Corporation’s yield on securities was slightly lower in 2016 than in 2015, primarily because of lower market interest rates. The average rate of return on available-for-sale securities was 2.83% in 2016 and 2.85% in 2015.

INTEREST EXPENSE AND INTEREST-BEARING LIABILITIES

Interest expense fell $560,000, or 23.4%, to $1,829,000 in 2016 from $2,389,000 in 2015. Table III shows that the overall cost of funds on interest-bearing liabilities fell to 0.45% in 2016 from 0.58% in 2015.

Total average deposits (interest-bearing and noninterest-bearing) decreased 1.7%, to $956,602,000 in 2016 from $973,631,000 in 2015. Decreases in the average balances of demand deposits, certificates of deposit and Individual Retirement Accounts were partially offset by increases in interest checking, money market accounts and savings accounts.

Total average borrowed funds decreased $10,574,000 to $68,141,000 in 2016 from $78,715,000 in 2015. The average rate on borrowed funds was 2.44% in 2016 compared to 3.65% in 2015, reflecting a $32,418,000 reduction in the average balance of higher-rate, long-term borrowings resulting from prepayment in the second and fourth quarters of 2015 of a long-term repurchase agreement borrowing with an interest rate of 4.265%. The average balance of short-term borrowings increased $21,844,000 in 2016 over 2015, as average overnight borrowings were higher in 2016 and the Corporation funded the pay-off of the long-term repurchase agreement with a series of short-term advances from the FHLB-Pittsburgh.

Three-Month Periods Ended June 30, 2016 and 2015

For the three-month periods, fully taxable equivalent net interest income was $10,684,000 in 2016, which was $65,000 (0.6%) lower than in 2015. Interest income was $316,000 lower in 2016 as compared to 2015, while interest expense was lower by $251,000 in comparing the same periods. As presented in Table III, the Net Interest Margin was 3.76% in 2016 as compared to 3.69% in 2015, and the “Interest Rate Spread” (excess of average rate of return on earning assets over average cost of funds on interest-bearing liabilities) was 3.63% in 2016 as compared to 3.53% in 2015.

Interest income totaled $11,609,000 in 2016, a decrease of $316,000 (2.6%) from 2015. Interest and fees from loans receivable increased $426,000, or 5.1%, in 2016 as compared to 2015, while income from available-for-sale securities decreased $758,000 (21.4%). As indicated in Table III, for the three-month periods, the average balance of gross loans receivable increased 11.0% to $711,882,000 in 2016 from $641,214,000 in 2015. The average rate of return on loans was 4.96% in 2016, down from 5.22% in 2015. Total average available-for-sale securities (at amortized cost) in 2016 decreased to $406,260,000 from $506,126,000 in 2015. The average rate of return on available-for-sale securities was 2.76% for 2016, down from 2.81% in 2015.

For the three-month periods, interest expense fell $251,000, or 21.3%, to $925,000 in 2016 from $1,176,000 in 2015. Total average deposits (interest-bearing and noninterest-bearing) amounted to $968,605,000 in the second quarter 2016, a decrease of $12,547,000 (1.3%) from the second quarter 2015 total. Total average borrowed funds decreased to

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$61,874,000 in the second quarter 2016 from $78,396,000 in the second quarter 2015, while the average rate on borrowed funds fell to 2.62% in the second quarter 2016 from 3.57% in the second quarter 2015. The net change in average borrowed funds included an increase of $14,040,000 in short-term borrowings and a decrease of $30,562,000 in long-term borrowings. In total, the average interest rate on interest-bearing liabilities was 0.46% in the second quarter 2016 as compared to 0.56% in the second quarter 2015. The reduction in average rate on interest-bearing liabilities in 2016 was mainly caused by the pay-off (prepayment) of the higher-cost borrowing in 2015, as described above.

TABLE II - ANALYSIS OF INTEREST INCOME AND EXPENSE

(In Thousands)	Three Months Ended June 30, 2016	2015	Increase/ (Decrease)	Six Months Ended June 30, 2016	2015	Increase/ (Decrease)
INTEREST INCOME						
Available-for-sale securities:						
Taxable	$ 1,495	$ 2,001	$ (506)	$ 3,084	$ 4,062	$ (978)
Tax-exempt	1,294	1,546	(252)	2,664	3,097	(433)
Total available-for-sale securities	2,789	3,547	(758)	5,748	7,159	(1,411)
Interest-bearing due from banks	36	25	11	60	51	9
Loans held for sale	8	3	5	14	5	9
Loans receivable:						
Taxable	8,086	7,753	333	16,060	15,462	598
Tax-exempt	690	597	93	1,375	1,129	246
Total loans receivable	8,776	8,350	426	17,435	16,591	844
Total Interest Income	11,609	11,925	(316)	23,257	23,806	(549)
INTEREST EXPENSE						
Interest-bearing deposits:						
Interest checking	74	54	20	132	109	23
Money market	86	73	13	165	145	20
Savings	33	33	0	65	64	1
Certificates of deposit	220	205	15	422	420	2
Individual Retirement Accounts	109	114	(5)	217	227	(10)
Other time deposits	0	0	0	0	0	0
Total interest-bearing deposits	522	479	43	1,001	965	36
Borrowed funds:						
Short-term	41	5	36	103	6	97
Long-term	362	692	(330)	725	1,418	(693)
Total borrowed funds	403	697	(294)	828	1,424	(596)
Total Interest Expense	925	1,176	(251)	1,829	2,389	(560)
Net Interest Income	$ 10,684	$ 10,749	$ (65)	$ 21,428	$ 21,417	$ 11

Note: Interest income from tax-exempt securities and loans has been adjusted to a fully tax-equivalent basis, using the Corporation's marginal federal income tax rate of 35%.

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TABLE III - ANALYSIS OF AVERAGE DAILY BALANCES AND RATES

(Dollars in Thousands)

	3 Months Ended 6/30/2016 Average Balance	Rate of Return/ Cost of Funds %	3 Months Ended 6/30/2015 Average Balance	Rate of Return/ Cost of Funds %	6 Months Ended 6/30/2016 Average Balance	Rate of Return/ Cost of Funds %	6 Months Ended 6/30/2015 Average Balance	Rate of Return/ Cost of Funds %
EARNING ASSETS								
Available-for-sale securities, at amortized cost:								
Taxable	$297,608	2.02 %	$389,705	2.06 %	$301,744	2.06 %	$388,909	2.11 %
Tax-exempt	108,652	4.79 %	116,421	5.33 %	107,029	5.01 %	117,044	5.34 %
Total available-for-sale securities	406,260	2.76 %	506,126	2.81 %	408,773	2.83 %	505,953	2.85 %
Interest-bearing due from banks	24,250	0.60 %	21,970	0.46 %	22,299	0.54 %	24,468	0.42 %
Loans held for sale	540	5.96 %	145	8.30 %	496	5.68 %	117	8.62 %
Loans receivable:								
Taxable	650,213	5.00 %	592,188	5.25 %	645,586	5.00 %	587,370	5.31 %
Tax-exempt	61,669	4.50 %	49,026	4.88 %	61,173	4.52 %	45,495	5.00 %
Total loans receivable	711,882	4.96 %	641,214	5.22 %	706,759	4.96 %	632,865	5.29 %
Total Earning Assets	1,142,932	4.09 %	1,169,455	4.09 %	1,138,327	4.11 %	1,163,403	4.13 %
Cash	16,522		17,072		16,055		16,602	
Unrealized gain/loss on securities	7,737		10,260		7,396		10,442	
Allowance for loan losses	(7,756)		(7,226)		(7,844)		(7,308)	
Bank premises and equipment	15,390		16,095		15,424		16,173	
Intangible Asset - Core Deposit Intangible	25		44		27		47	
Intangible Asset - Goodwill	11,942		11,942		11,942		11,942	
Other assets	38,938		38,065		38,734		37,603	
Total Assets	$1,225,730		$1,255,707		$1,220,061		$1,248,904	
INTEREST-BEARING LIABILITIES								

Interest-bearing deposits:								
Interest checking	$196,918	0.15 %	$199,373	0.11 %	$196,030	0.14 %	$195,560	0.11 %
Money market	200,896	0.17 %	196,537	0.15 %	196,205	0.17 %	195,690	0.15 %
Savings	132,353	0.10 %	128,879	0.10 %	131,178	0.10 %	128,369	0.10 %
Certificates of deposit	117,825	0.75 %	122,634	0.67 %	115,618	0.73 %	122,322	0.69 %
Individual Retirement Accounts	104,030	0.42 %	111,765	0.41 %	104,796	0.42 %	112,780	0.41 %
Other time deposits	1,140	0.00 %	1,125	0.00 %	972	0.00 %	965	0.00 %
Total interest-bearing deposits	753,162	0.28 %	760,313	0.25 %	744,799	0.27 %	755,686	0.26 %
Borrowed funds:								
Short-term	23,225	0.71 %	9,185	0.22 %	29,454	0.70 %	7,610	0.16 %
Long-term	38,649	3.77 %	69,211	4.01 %	38,687	3.77 %	71,105	4.02 %
Total borrowed funds	61,874	2.62 %	78,396	3.57 %	68,141	2.44 %	78,715	3.65 %
Total Interest-bearing Liabilities	815,036	0.46 %	838,709	0.56 %	812,940	0.45 %	834,401	0.58 %
Demand deposits	215,443		220,839		211,803		217,945	
Other liabilities	8,304		7,756		7,841		7,937	
Total Liabilities	1,038,783		1,067,304		1,032,584		1,060,283	
Stockholders' equity, excluding other comprehensive income/loss	181,882		181,683		182,629		181,813	
Other comprehensive income/loss	5,065		6,720		4,848		6,808	
Total Stockholders' Equity	186,947		188,403		187,477		188,621	
Total Liabilities and Stockholders' Equity	$1,225,730		$1,255,707		$1,220,061		$1,248,904	
Interest Rate Spread		3.63 %		3.53 %		3.66 %		3.55 %
Net Interest Income/Earning Assets		3.76 %		3.69 %		3.79 %		3.71 %
Total Deposits (Interest-bearing and Demand)	$968,605		$981,152		$956,602		$973,631	

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

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

(3) Rates of return on earning assets and costs of funds are presented on an annualized basis.

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TABLE IV - ANALYSIS OF VOLUME AND RATE CHANGES

(In Thousands)	3 Months Ended 6/30/16 vs. 6/30/15			6 Months Ended 6/30/16 vs. 6/30/15		
	Change in Volume	Change in Rate	Total Change	Change in Volume	Change in Rate	Total Change
EARNING ASSETS						
Available-for-sale securities:						
Taxable	$ (469)	$ (37)	$ (506)	$ (883)	$ (95)	$ (978)
Tax-exempt	(101)	(151)	(252)	(251)	(182)	(433)
Total available-for-sale securities	(570)	(188)	(758)	(1,134)	(277)	(1,411)
Interest-bearing due from banks	2	9	11	(5)	14	9
Loans held for sale	7	(2)	5	12	(3)	9
Loans receivable:						
Taxable	721	(388)	333	1,508	(910)	598
Tax-exempt	142	(49)	93	363	(117)	246
Total loans receivable	863	(437)	426	1,871	(1,027)	844
Total Interest Income	302	(618)	(316)	744	(1,293)	(549)
INTEREST-BEARING LIABILITIES						
Interest-bearing deposits:						
Interest checking	(1)	21	20	0	23	23
Money market	1	12	13	0	20	20
Savings	0	0	0	1	0	1
Certificates of deposit	(9)	24	15	(23)	25	2
Individual Retirement Accounts	(9)	4	(5)	(16)	6	(10)
Other time deposits	0	0	0	0	0	0
Total interest-bearing deposits	(18)	61	43	(38)	74	36
Borrowed funds:						
Short-term	21	15	36	43	54	97
Long-term	(290)	(40)	(330)	(609)	(84)	(693)
Total borrowed funds	(269)	(25)	(294)	(566)	(30)	(596)
Total Interest Expense	(287)	36	(251)	(604)	44	(560)
Net Interest Income	$ 589	$ (654)	$ (65)	$ 1,348	$ (1,337)	$ 11

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

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

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TABLE V - COMPARISON OF NONINTEREST INCOME

(In Thousands)

	6 Months Ended June 30, 2016	2015	$ Change	% Change
Service charges on deposit accounts	$2,302	$2,327	$ (25)	(1.1)
Service charges and fees	217	236	(19)	(8.1)
Trust and financial management revenue	2,395	2,355	40	1.7
Brokerage revenue	353	425	(72)	(16.9)
Insurance commissions, fees and premiums	48	63	(15)	(23.8)
Interchange revenue from debit card transactions	950	974	(24)	(2.5)
Net gains from sales of loans	463	330	133	40.3
Decrease in fair value of servicing rights	(179)	(150)	(29)	19.3
Increase in cash surrender value of life insurance	189	199	(10)	(5.0)
Other operating income	858	759	99	13.0
Total other operating income before realized gains on available-for-sale securities, net	$7,596	$7,518	$ 78	1.0

Table V excludes realized gains on available-for-sale securities, which are discussed in the “Earnings Overview” section of Management’s Discussion and Analysis. Total noninterest income shown in Table V increased $78,000 or 1.0%, in the first six months of 2016 as compared to the first six months of 2015. The most significant variances include the following:

- Net gains on the sale of loans increased $133,000 reflecting a higher volume of residential mortgage sales. The Corporation originates and sells some of its residential mortgage production under the Mortgage Partnership Finance Program, administered by the Federal Home Loan Banks of Chicago and Pittsburgh.

- Other operating income increased $99,000, mainly due to an increase of $91,000 in revenue from the redemption of tax credits.

- Brokerage revenue decreased $72,000, as the volume of sales of annuities decreased. Brokerage revenue was also impacted by decreases in market values of underlying assets for a portion of the first six months of 2016.

TABLE VI - COMPARISON OF NONINTEREST INCOME

(In Thousands)

	3 Months Ended June 30, 2016	2015	$ Change	% Change
Service charges on deposit accounts	$1,164	$1,305	$(141)	(10.8)
Service charges and fees	123	123	0	0.0
Trust and financial management revenue	1,251	1,241	10	0.8
Brokerage revenue	180	206	(26)	(12.6)
Insurance commissions, fees and premiums	27	23	4	17.4
Interchange revenue from debit card transactions	487	500	(13)	(2.6)
Net gains from sales of loans	295	183	112	61.2
Decrease in fair value of servicing rights	(108)	(33)	(75)	227.3
Increase in cash surrender value of life insurance	93	102	(9)	(8.8)
Other operating income	394	312	82	26.3
Total other operating income before realized gains on available-for-sale securities, net	$3,906	$3,962	$(56)	(1.4)

Table VI excludes realized gains on available-for-sale securities, which are discussed in the “Earnings Overview” section of Management’s Discussion and Analysis. Total noninterest income shown in Table VI decreased $56,000 or 1.4%, in the three months ended June 30, 2016 as compared to the three months ended June 30, 2015. The most significant variances include the following:

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- Service charges on deposit accounts decreased $141,000, or 10.8%, primarily as a result of a lower volume of consumer overdrafts.

- Fair value of mortgage servicing rights decreased $108,000 in the second quarter 2016, primarily from changes in prepayment assumptions driven by market expectations of lower interest rates. In comparison, the fair value of mortgage servicing rights decreased $33,000 in the second quarter 2015.

- Net gains from the sales of loans increased $112,000 in 2016 (61.2%) reflecting a higher volume of sales of residential mortgages.

- Other operating income increased $82,000 in 2016, with increases in several categories, most significantly dividends received on Federal Home Loan Bank of Pittsburgh stock and revenue from redemption of tax credits.

TABLE VII - COMPARISON OF NONINTEREST EXPENSE

(In Thousands)

	Six Months Ended June 30, 2016	2015	$ Change	% Change
Salaries and wages	$7,800	$7,090	$ 710	10.0
Pensions and other employee benefits	2,439	2,320	119	5.1
Occupancy expense, net	1,169	1,362	(193)	(14.2)
Furniture and equipment expense	866	921	(55)	(6.0)
FDIC Assessments	297	299	(2)	(0.7)
Pennsylvania shares tax	645	635	10	1.6
Professional fees	571	296	275	92.9
Automated teller machine and interchange expense	516	501	15	3.0
Software subscriptions	492	408	84	20.6
Loss on prepayment of borrowings	0	910	(910)	(100.0)
Other operating expense	2,812	2,665	147	5.5
Total Other Expense	$17,607	$17,407	$ 200	1.1

As shown in Table VII, total noninterest expense increased $200,000 or 1.1% in the first six months of 2016 as compared to the first six months of 2015. Excluding the $910,000 loss on prepayment of debt in 2015, total noninterest expense increased $1,110,000, or 6.7%. Other significant variances include the following:

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Salaries and wages expense increased $710,000 (10.0%), reflecting an increase in number of employees and the effects of a significant portion of 2016 employee annual performance evaluations and merit increases occurring in the first six months of 2016. The average number of full-time equivalent employees was 286 in 2016, up from 277 in 2015, including new positions established for lending, lending support, information technology, training and marketing functions.

- Professional fees expense increased $275,000 (92.9%) in the first six months 2016 over the first six months of 2015 amount, including increases related to employee sales and service training, information technology, marketing and outsourced commercial loan credit review.

- Other operating expense increased $147,000 (5.5%) in the first six months of 2016 over the first six months of 2015, including an increase in charitable donations of $75,000 and a $57,000 increase in education and training related expenses.

- Pensions and other employee benefits increased $119,000 (5.1%) in the first six months of 2016 over the first six months of 2015 as a result of increased healthcare claims on the Corporation's partially self-insured plan as well as increases in other benefits attributable to having more personnel.

- Software subscriptions and updates increased $84,000 (20.6%) in the first six months of 2016 over the first six months 2015 as a result of enhancements and new applications initiated in 2015 and continuing into 2016.

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- Occupancy expense in the first six months of 2016 was $193,000 (14.2%) lower than the total for the first six months of 2015, primarily as a result of lower depreciation expense and lower winter-related expenses such as snow removal and fuel costs.

TABLE VIII - COMPARISON OF NONINTEREST EXPENSE

(In Thousands)

	Three Months Ended June 30, 2016	2015	$ Change	% Change
Salaries and wages	$ 3,913	$ 3,603	$ 310	8.6
Pensions and other employee benefits	1,002	935	67	7.2
Occupancy expense, net	560	640	(80)	(12.5)
Furniture and equipment expense	439	467	(28)	(6.0)
FDIC Assessments	155	148	7	4.7
Pennsylvania shares tax	323	317	6	1.9
Professional fees	282	140	142	101.4
Automated teller machine and interchange expense	267	255	12	4.7
Software subscriptions	251	211	40	19.0
Loss on prepayment of borrowings	0	910	(910)	(100.0)
Other operating expense	1,343	1,248	95	7.6
Total Other Expense	$ 8,535	$ 8,874	$ (339)	(3.8)

As shown in Table VIII, total noninterest expense decreased $339,000 or 3.8% in the three months ended June 30, 2016 as compared to the same period of 2015. Excluding the $910,000 loss on prepayment of debt in 2015, total noninterest expense increased $571,000, or 7.2%.Significant variances include the following:

- Salaries and wages expense increased $310,000 (8.6%), reflecting an increase in number of employees. The average number of full-time equivalent employees was 286 in the second quarter 2016, up from 278 in the second quarter 2015, including new positions established for lending, lending support, information technology, training and marketing functions.

- Professional fees expense increased $142,000 (101.4%) in the three months June 30, 2016 over the same period in 2015, including increases related to employee sales and service training, information technology, marketing and outsourced commercial loan credit review.

- Other operating expense increased $95,000 (7.6%) in the three months ended June 30, 2016 over the same period in 2015, including a $28,000 increase in education and training related expenses and a $26,000 increase in expenses related to other real estate.

- Pensions and other employee benefits increased $67,000 (7.2%) in the three months ended June 30, 2016 over the same period in 2015 as a result of increased healthcare claims and increases in other benefits attributable to having more personnel.

- Software subscriptions and updates increased $40,000 (19.0%) in the three months ended June 30, 2016 over the same period in 2015 as a result of enhancements and new applications initiated in 2015 and continuing into 2016.

- Occupancy expense in the three months ended June 30, 2016 was $80,000 (12.5%) lower than in the same period in 2015, primarily as a result of lower depreciation and utility costs.

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FINANCIAL CONDITION

Gross loans outstanding (excluding mortgage loans held for sale) were $727,842,000 at June 30, 2016, up 3.3% from $704,880,000 at December 31, 2015 and up 9.6% from $663,818,000 at June 30, 2015. The total outstanding balances of residential mortgage segment loans at June 30, 2016 increased $12,555,000 (3.3%) as compared to December 31, 2015 and increased $23,374,000 (6.2%) as compared to June 30, 2015. The total outstanding balances of commercial segment loans at June 30, 2016 increased $8,929,000 (2.9%) as compared to December 31, 2015 and increased $63,168,000 (13.9%) as compared to June 30, 2015. These increases in loans outstanding included significant increases in commercial participation loans and commercial real estate secured loans. Participation loans represent portions of larger commercial transactions for which other institutions are the "lead banks". Although not the lead bank, the Corporation conducts detailed underwriting and monitoring of participation loan opportunities. Participation loans are included in the "Commercial and industrial," "Commercial loans secured by real estate" and "Political subdivisions" classes in the loan tables presented in this Form 10-Q. Total participation loans outstanding amounted to $35,940,000 at June 30, 2016, up from $33,059,000 at December 31, 2015 and up significantly from $10,354,000 at June 30, 2015. At June 30, 2016, the balance of participation loans outstanding includes $7,320,000 to a business based in the Corporation's market area, $10,000,000 to an entity located outside of the Corporation's market area and $11,089,000 from participations in loans originated through the Corporation's membership in a network that originates loans throughout the U.S. The Corporation's participation loans originated through the network consist of loans to businesses that are larger than the Corporation's typical commercial customer base. The loans originated through the network are considered "leveraged loans," meaning the businesses typically have minimal tangible book equity and the extent of collateral available is limited, though the businesses have demonstrated strong cash flow performance in their recent histories.

Other significant changes in the average balances of the Corporation's earning assets and interest-bearing liabilities are described in the "Net Interest Income" section of Management's Discussion and Analysis. Other significant balance sheet items, including the allowance for loan losses and stockholders' equity, are discussed in separate sections of Management's Discussion and Analysis.

Management does not expect capital expenditures to have a material, detrimental effect on the Corporation's financial condition in 2016.

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

Corporation would assume credit losses in excess of a defined First Loss Account ("FLA") balance, up to specified amounts. The FLA is funded by the Federal Home Loan Bank of Pittsburgh based on a percentage of the outstanding balance of loans sold. At June 30, 2016, the Corporation has recorded an allowance in the amount of $155,000 for credit losses on loans sold under the MPF Original Program which is included in "Accrued interest and other liabilities" in the accompanying balance sheet. There was no allowance recorded at December 31, 2015. The Corporation does not provide a credit enhancement for loans sold through the Xtra program.

For loan sales originated under the MPF Xtra and Original programs, the Corporation provides customary representations and warranties to investors that specify, among other things, that the loans have been underwritten to the standards established by the investor. The Corporation may be required to repurchase a loan and reimburse a portion of fees received, or reimburse the investor for a credit loss incurred on a loan, if it is determined that the representations and warranties have not been met. Such repurchases or reimbursements generally result from an underwriting or documentation deficiency. At June 30, 2016, the total outstanding balance of loans the Corporation has repurchased as a result of identified instances of noncompliance amounted to $1,939,000, and the corresponding total outstanding balance repurchased at December 31, 2015 was $1,968,000.

At June 30, 2016, outstanding balances of loans sold and serviced through the two programs totaled $156,417,000, including loans sold through the MPF Xtra program of $120,225,000 and loans sold through the Original program of $36,192,000. At December 31, 2015, outstanding balances of loans sold and serviced through the two programs totaled $152,448,000, including loans sold through the MPF Xtra program of $125,571,000 and loans sold through the Original program of $26,877,000. Based on the fairly limited volume of required repurchases to date, no allowance had been established for representation and warranty exposures as of June 30, 2016 and December 31, 2015.

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PROVISION AND ALLOWANCE FOR LOAN LOSSES

The Corporation maintains an allowance for loan losses that represents management's estimate of the losses inherent in the loan portfolio as of the balance sheet date and is recorded as a reduction of the investment in loans. Note 7 to the unaudited consolidated financial statements provides an overview of the process management uses for evaluating and determining the allowance for loan losses.

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

The allowance for loan losses was $7,929,000 at June 30, 2016, up slightly from $7,889,000 at December 31, 2015. As shown in Table X, the specific allowance on impaired loans totaled $253,000 at June 30, 2016, which was $567,000 lower than the total specific allowance at December 31, 2015 primarily as a result of a $595,000 partial charge-off on one commercial loan. Table X also shows the collectively determined component of the allowance for commercial loans was $387,000 higher at June 30, 2016 than at December 31, 2015, reflecting the effects of growth in outstanding loans and increases in the average net charge-offs experience and qualitative factors used to estimate the required allowance. The collectively determined component of the allowance for residential mortgages was $233,000 higher at June 30, 2016 than at December 31, 2015, reflecting growth in outstanding loans and the use of slightly higher qualitative factors to estimate the required allowance.

The provision (credit) for loan losses by segment in the three-month and six-month period ended June 30, 2016 and 2015 is as follows:

(In Thousands)	3 Months Ended		6 Months Ended	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
Residential mortgage	$ 191	$ 141	$ 274	$ 69
Commercial	135	82	413	161
Consumer	21	(4)	28	(7)
Unallocated	(29)	2	(29)	1
Total	$ 318	$ 221	$ 686	$ 224

The increases in the provision for loan losses for the second quarter and first six months of 2016 as compared to the corresponding periods of 2015 reflect, in part, increases in the collectively determined allowance for loan losses resulting from growth in outstanding loans and from slight increases in qualitative factors used to estimate the required allowance. In 2016, the provision for the commercial segment also includes the effects of an increase in average net charge-offs as a percentage of outstanding loans (based on historical experience over the previous thirty-six months) used to estimate a portion of the collectively determined allowance.

Table XI presents information related to past due and impaired loans, and loans that have been modified under terms that are considered troubled debt restructurings (TDRs). Table XI shows total impaired loans of $9,330,000 at June 30, 2016, down $644,000 from the corresponding amount at December 31, 2015 of $9,974,000. As also shown in Table XI, loans classified as TDRs totaled $6,149,000 at June 30, 2016 down slightly from $6,364,000 at December 31, 2015, and nonaccrual loans totaled $10,504,000 at June 30, 2016 as compared to $11,517,000 at December 31, 2015.

The outstanding balances of impaired loans without a valuation allowance, nonaccrual loans and nonperforming TDRs at June 30, 2016, include an outstanding balance of $4,925,000 from loans to one commercial entity. In 2014, the Corporation entered into a forbearance agreement with this commercial borrower which included a reduction in monthly payment amounts over a fifteen-month period. At the end of the fifteen-month period, the monthly payment amounts would revert to the original amounts, unless the forbearance agreement was extended or the payment requirements otherwise modified. The forbearance agreement has been extended for two additional twelve-month periods, most recently in July 2016. The Corporation recorded a charge-off of $1,486,000 in the second quarter 2014 as a result of these modifications, as the payment amounts based on the forbearance agreement are not sufficient to fully amortize the contractual amount of principal outstanding on the loans. The borrower has made all required payments on the loans in accordance with the terms of the forbearance agreement, as extended.

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As also shown in Table XI total loans past due 90 days or more and still accruing interest increased to $4,654,000 at June 30, 2016 from $3,229,000 at December 31, 2015. This category includes first lien residential mortgages with a total outstanding balance of $3,663,000 at June 30, 2016. The Corporation reviews the status of loans past due 90 days or more each quarter to determine if it is appropriate to continue to accrue interest, and has determined the loans included in this category are well secured and that ultimate collection of all principal and interest is probable.

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

Management believes it has been conservative in its decisions concerning identification of impaired loans, estimates of loss, and nonaccrual status; however, the actual losses realized from these relationships could vary materially from the allowances calculated as of June 30, 2016. Management continues to closely monitor its commercial loan relationships for possible credit losses, and will adjust its estimates of loss and decisions concerning nonaccrual status, if appropriate.

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

TABLE IX - ANALYSIS OF THE ALLOWANCE FOR LOAN LOSSES

(In Thousands)

	6 Months Ended						
	June 30,	June 30,	**Years Ended December 31,**				
	2016	2015	2015	2014	2013	2012	2011
Balance, beginning of year	$7,889	$ 7,336	$7,336	$8,663	$6,857	$7,705	$9,107
Charge-offs:							
Residential mortgage	(42)	(137)	(217)	(327)	(95)	(552)	(100)
Commercial	(595)	(125)	(251)	(1,715)	(459)	(498)	(1,189)
Consumer	(39)	(37)	(94)	(97)	(117)	(171)	(157)
Total charge-offs	(676)	(299)	(562)	(2,139)	(671)	(1,221)	(1,446)
Recoveries:							
Residential mortgage	0	1	1	25	24	18	3
Commercial	3	4	214	264	348	8	255
Consumer	27	34	55	47	58	59	71

Total recoveries	30	39	270	336	430	85	329
Net charge-offs	(646)	(260)	(292)	(1,803)	(241)	(1,136)	(1,117)
Provision (credit) for loan losses	686	224	845	476	2,047	288	(285)
Balance, end of period	$7,929	$ 7,300	$7,889	$7,336	$8,663	$6,857	$7,705
Net charge-offs as a % of average loans	0.09 %	0.04 %	0.04 %	0.29 %	0.04 %	0.16 %	0.16 %

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TABLE X - COMPONENTS OF THE ALLOWANCE FOR LOAN LOSSES

(In Thousands)

	June 30, 2016	As of December 31, 2015	2014	2013	2012	2011
ASC 310 - Impaired loans	$ 253	$820	$769	$2,333	$623	$1,126
ASC 450 - Collective segments:						
Commercial	3,490	3,103	2,732	2,583	2,594	2,811
Residential mortgage	3,650	3,417	3,295	3,156	3,011	3,130
Consumer	138	122	145	193	188	204
Unallocated	398	427	395	398	441	434
Total Allowance	$ 7,929	$7,889	$7,336	$8,663	$6,857	$7,705

The above allocation is based on estimates and subjective judgments and is not necessarily indicative of the specific amounts or loan categories in which losses may occur.

TABLE XI - PAST DUE AND IMPAIRED LOANS, NONPERFORMING ASSETS AND TROUBLED DEBT RESTRUCTURINGS (TDRs)

(In Thousands)	As of June 30, 2016	As of December 31, 2015	2014	2013	2012	2011
Impaired loans with a valuation allowance	$1,275	$1,933	$3,241	$9,889	$2,710	$3,433
Impaired loans without a valuation allowance	8,055	8,041	9,075	6,432	4,719	4,431
Total impaired loans	$9,330	$9,974	$12,316	$16,321	$7,429	$7,864
Total loans past due 30-89 days and still accruing	$6,945	$7,057	$7,121	$8,305	$7,756	$7,898
Nonperforming assets:						
Total nonaccrual loans	$10,504	$11,517	$12,610	$14,934	$7,353	$7,197
Total loans past due 90 days or more and still accruing	4,654	3,229	2,843	3,131	2,311	1,267
Total nonperforming loans	15,158	14,746	15,453	18,065	9,664	8,464
Foreclosed assets held for sale (real estate)	2,052	1,260	1,189	892	879	1,235
Total nonperforming assets	$17,210	$16,006	$16,642	$18,957	$10,543	$9,699
Loans subject to troubled debt restructurings (TDRs):						
Performing	$1,047	$1,186	$1,807	$3,267	$906	$1,064
Nonperforming	5,102	5,178	5,388	908	1,155	2,413
Total TDRs	$6,149	$6,364	$7,195	$4,175	$2,061	$3,477

Total nonperforming loans as a % of loans	2.08 %	2.09 %	2.45 %	2.80 %	1.41 %	1.19 %
Total nonperforming assets as a % of assets	1.40 %	1.31 %	1.34 %	1.53 %	0.82 %	0.73 %
Allowance for loan losses as a % of total loans	1.09 %	1.12 %	1.16 %	1.34 %	1.00 %	1.09 %
Allowance for loan losses as a % of nonperforming loans	52.31 %	53.50 %	47.47 %	47.95 %	70.95 %	91.03 %

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TABLE XII - SUMMARY OF LOANS BY TYPE

Summary of Loans by Type

(In Thousands)	June 30, 2016	As of December 31, 2015	2014	2013	2012	2011
Residential mortgage:						
Residential mortgage loans - first liens	$315,191	$304,783	$291,882	$299,831	$311,627	$331,015
Residential mortgage loans - junior liens	22,159	21,146	21,166	23,040	26,748	28,851
Home equity lines of credit	39,054	39,040	36,629	34,530	33,017	30,037
1-4 Family residential construction	22,241	21,121	16,739	13,909	12,842	9,959
Total residential mortgage	398,645	386,090	366,416	371,310	384,234	399,862
Commercial:						
Commercial loans secured by real estate	153,070	154,779	145,878	147,215	158,413	156,388
Commercial and industrial	82,390	75,196	50,157	42,387	48,442	57,191
Political subdivisions	41,026	40,007	17,534	16,291	31,789	37,620
Commercial construction and land	9,193	5,122	6,938	17,003	28,200	23,518
Loans secured by farmland	6,615	7,019	7,916	10,468	11,403	10,949
Multi-family (5 or more) residential	8,173	9,188	8,917	10,985	6,745	6,583
Agricultural loans	4,692	4,671	3,221	3,251	3,053	2,987
Other commercial loans	11,904	12,152	13,334	14,631	362	552
Total commercial	317,063	308,134	253,895	262,231	288,407	295,788
Consumer	12,134	10,656	10,234	10,762	11,269	12,665
Total	727,842	704,880	630,545	644,303	683,910	708,315
Less: allowance for loan losses	(7,929)	(7,889)	(7,336)	(8,663)	(6,857)	(7,705)
Loans, net	$719,913	$696,991	$623,209	$635,640	$677,053	$700,610

LIQUIDITY

Liquidity is the ability to quickly raise cash at a reasonable cost. An adequate liquidity position permits the Corporation to pay creditors, compensate for unforeseen deposit fluctuations and fund unexpected loan demand. At June 30, 2016, the Corporation maintained overnight interest-bearing deposits with the Federal Reserve Bank of Philadelphia and other correspondent banks totaling $9,401,000.

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

The Corporation has a line of credit with the Federal Reserve Bank of Philadelphia's Discount Window. Management intends to use this line of credit as a contingency funding source. As collateral for the line, the Corporation has pledged available-for-sale securities with a carrying value of $19,031,000 at June 30, 2016.

The Corporation's outstanding, available, and total credit facilities at June 30, 2016 and December 31, 2015 are as follows:

	Outstanding		Available		Total Credit	
(In Thousands)	June 30, 2016	Dec. 31, 2015	June 30, 2016	Dec. 31, 2015	June 30, 2016	Dec. 31, 2015
Federal Home Loan Bank of Pittsburgh	$31,656	$60,348	$294,372	$262,361	$326,028	$322,709
Federal Reserve Bank Discount Window	0	0	17,285	19,606	17,285	19,606
Other correspondent banks	0	0	45,000	45,000	45,000	45,000
Total credit facilities	$31,656	$60,348	$356,657	$326,967	$388,313	$387,315

At June 30, 2016, the Corporation's outstanding credit facilities with the Federal Home Loan Bank of Pittsburgh consisted of overnight borrowings of $7,500,000, short-term borrowings of $12,541,000, and long-term borrowings with a total amount of $11,615,000. At December 31, 2015, the Corporation's outstanding credit facilities with the Federal Home Loan Bank of Pittsburgh consisted of overnight borrowings of $23,500,000, short-term borrowings of $25,081,000, and long-term borrowings with a total amount of $11,767,000. Additional information regarding borrowed funds is included in Note 8 of the unaudited consolidated financial statements.

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Additionally, the Corporation uses repurchase agreements placed with brokers to borrow funds secured by investment assets and "RepoSweep" arrangements to borrow funds from commercial banking customers on an overnight basis. If required to raise cash in an emergency situation, the Corporation could sell available-for-sale securities to meet its obligations. At June 30, 2016, the carrying value of available-for-sale securities in excess of amounts required to meet pledging or repurchase agreement obligations was $224,393,000.

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

STOCKHOLDERS' EQUITY AND CAPITAL ADEQUACY

The Corporation and C&N Bank are subject to various regulatory capital requirements administered by the federal banking agencies. Details concerning capital ratios at June 30, 2016 and December 31, 2015 are presented below. Management believes, as of June 30, 2016 and December 31, 2015, that the Corporation and C&N Bank meet all capital adequacy requirements to which they are subject and maintain capital conservation buffers (described in more detail in the "New Capital Rule" section below) that allow the Corporation and C&N Bank to avoid limitations on capital distributions, including dividend payments and certain discretionary bonus payments to executive officers. Further, as reflected in the table below, the Corporation's and C&N Bank's capital ratios at June 30, 2016 and December 31, 2015 exceed the Corporation's policy threshold levels.

(Dollars in Thousands)	Actual		Minimum Capital Requirement		Minimum To Maintain Capital Conservation Buffer at Reporting Date		Minimum To Be Well Capitalized Under Prompt Corrective Action Provisions		Minimum T Meet the Corpora Policy Thre
	Amount	**Ratio**	**Amount**	**Ratio**	**Amount**	**Ratio**	**Amount**	**Ratio**	**Amount**
June 30, 2016:									
Total capital to risk-weighted assets:									
Consolidated	$179,810	23.47 %	$61,279	8 %	$66,067	³8.625%	$76,599	³10 %	$80,429
C&N Bank	159,919	21.01 %	60,903	8 %	65,661	³8.625%	76,128	³10 %	79,935
Tier 1 capital to risk-weighted assets:									
Consolidated	171,684	22.41 %	30,640	6 %	50,747	³6.625%	61,279	³8 %	65,109
C&N Bank	151,990	19.96 %	30,451	6 %	50,435	³6.625%	60,903	³8 %	64,709
Common equity tier 1 capital to risk-weighted assets:									

Consolidated	171,684	22.41 %	30,640	4.5	%	39,257	³5.125%	49,789	³6.5	%	53,619
C&N Bank	151,990	19.96 %	30,451	4.5	%	39,016	³5.125%	49,483	³6.5	%	53,290
Tier 1 capital to average assets:											
Consolidated	171,684	14.19 %	48,391	4	%	N/A	N/A	60,489	³5	%	60,489
C&N Bank	151,990	12.72 %	47,786	4	%	N/A	N/A	59,732	³5	%	59,732
December 31, 2015:											
Total capital to risk-weighted assets:											
Consolidated	$181,216	24.40 %	$59,424	8	%	N/A	N/A	$74,281	³10	%	$77,995
C&N Bank	161,187	21.83 %	59,058	8	%	N/A	N/A	73,823	³10	%	77,514
Tier 1 capital to risk-weighted assets:											
Consolidated	173,009	23.29 %	29,712	6	%	N/A	N/A	59,424	³8	%	63,139
C&N Bank	153,298	20.77 %	29,529	6	%	N/A	N/A	59,058	³8	%	62,749
Common equity tier 1 capital to risk-weighted assets:											
Consolidated	173,009	23.29 %	29,712	4.5	%	N/A	N/A	48,282	³6.5	%	51,996
C&N Bank	153,298	20.77 %	29,529	4.5	%	N/A	N/A	47,985	³6.5	%	51,676
Tier 1 capital to average assets:											
Consolidated	173,009	14.31 %	48,355	4	%	N/A	N/A	60,444	³5	%	60,444
C&N Bank	153,298	12.81 %	47,861	4	%	N/A	N/A	59,826	³5	%	59,826

Management expects the Corporation and C&N Bank to maintain capital levels that exceed the regulatory standards for well-capitalized institutions and the applicable capital conservation buffers for the next 12 months and for the foreseeable future.

Future dividend payments will depend upon maintenance of a strong financial condition, future earnings and capital and regulatory requirements. As described in more detail in the section below titled “New Capital Rule," the Corporation and C&N Bank are subject to restrictions on the amount of dividends that may be paid without approval of banking regulatory authorities.

NEW CAPITAL RULE

In July 2013, the federal regulatory authorities issued a new capital rule based, in part, on revisions developed by the Basel Committee on Banking Supervision to the Basel capital framework (Basel III). The Corporation and C&N Bank became subject to the new rule effective January 1, 2015. Generally, the new rule implemented higher minimum capital requirements, revised the definition of regulatory capital components and related calculations, added a new common equity tier 1 capital ratio, implemented a new capital conservation buffer, increased the risk weighting for past due loans and provided a transition period for several aspects of the new rule.

The current (new) capital rule provides that, in order to avoid limitations on capital distributions, including dividend payments and certain discretionary bonus payments to executive officers, a banking organization must hold a capital conservation buffer composed of common equity tier 1 capital above its minimum risk-based capital requirements. The buffer is measured relative to risk-weighted assets. Phase-in of the capital conservation buffer requirements began January 1, 2016. The transition schedule for new ratios, including the capital conservation buffer, is as follows:

	As of January 1:				
	2015	2016	2017	2018	2019
Minimum common equity tier 1 capital ratio	4.5 %	4.5 %	4.5 %	4.5 %	4.5 %
Common equity tier 1 capital conservation buffer	N/A	0.625 %	1.25 %	1.875 %	2.5 %
Minimum common equity tier 1 capital ratio plus capital conservation buffer	4.5 %	5.125 %	5.75 %	6.375 %	7.0 %
Phase-in of most deductions from common equity tier 1 capital	40 %	60 %	80 %	100 %	100 %
Minimum tier 1 capital ratio	6.0 %	6.0 %	6.0 %	6.0 %	6.0 %
Minimum tier 1 capital ratio plus capital conservation buffer	N/A	6.625 %	7.25 %	7.875 %	8.5 %
Minimum total capital ratio	8.0 %	8.0 %	8.0 %	8.0 %	8.0 %
Minimum total capital ratio plus capital conservation buffer	N/A	8.625 %	9.25 %	9.875 %	10.5 %

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

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

At June 30, 2016, the Corporation's Capital Conservation Buffer, determined based on the minimum total capital ratio, was 15.47%. C&N Bank's Capital Conservation Buffer (also determined based on the minimum total capital ratio) was 13.01%.

The Corporation's total stockholders' equity is affected by fluctuations in the fair values of available-for-sale securities. The difference between amortized cost and fair value of available-for-sale securities, net of deferred income tax, is included in Accumulated Other Comprehensive Income within stockholders' equity. The balance in Accumulated Other Comprehensive Income related to unrealized gains on available-for-sale securities, net of deferred income tax, amounted to $6,849,000 at June 30, 2016 and $2,493,000 at December 31, 2015. Changes in accumulated other comprehensive income are excluded from earnings and directly increase or decrease stockholders' equity. If available-for-sale securities are deemed to be other-than-temporarily impaired, unrealized losses are recorded as a charge against earnings, and amortized cost for the affected securities is reduced. Note 6 to the unaudited consolidated financial statements provides additional information concerning management's evaluation of available-for-sale securities for other-than-temporary impairment at June 30, 2016.

Stockholders' equity is also affected by the underfunded or overfunded status of defined benefit pension and postretirement plans. The balance in Accumulated Other Comprehensive Income related to defined benefit plans, net of deferred income tax, was $45,000 at June 30, 2016 and $35,000 at December 31, 2015.

COMPREHENSIVE INCOME

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

Comprehensive Income totaled $5,369,000 for the three months ended June 30, 2016 as compared to $777,000 in the second quarter 2015. For the three months ended June 30, 2016, Comprehensive Income included: (1) Net Income of $3,871,000, which was $486,000 lower than in the second quarter 2015; (2) Other Comprehensive Income from an increase in net unrealized gains on available-for-sale securities of $1,502,000 as compared to Other Comprehensive Loss of ($3,577,000) from a decrease in net unrealized gains on available-for-sale securities in the second quarter 2015; and (3) Other Comprehensive Loss from defined benefit plans of ($4,000) for the second quarter 2016 and ($3,000) for the second quarter 2015.

Comprehensive Income totaled $11,810,000 for the six months ended June 30, 2016 as compared to $6,898,000 for the six months ended June 30, 2015. In the six months ended June 30, 2016, Comprehensive Income included: (1) Net Income of $7,444,000, which was $728,000 lower than in the first six months of 2015; (2) Other Comprehensive Income from an increase in net unrealized gains on available-for-sale securities, net of deferred income tax, of $4,356,000 as compared to Other Comprehensive Loss of ($1,204,000) in the first six months of 2015; and (3) Other Comprehensive Income from defined benefit plans of $10,000 as compared to Other Comprehensive Loss of ($70,000) in the first six months of 2015.

INCOME TAXES

The effective income tax rate ranged from 24.35% to 25.18% of pre-tax income for the three-month and six-month periods ended June 30, 2016 and 2015. The provision for income tax for interim periods is based on the Corporation's estimate of the effective tax rate expected to be applicable for the full year. The Corporation's effective tax rates differ from the statutory rate of 35% principally because of the effects of tax-exempt interest income.

The Corporation recognizes deferred tax assets and liabilities based on differences between the financial statement carrying amounts and the tax basis of assets and liabilities. At June 30, 2016, the net deferred tax asset was $425,000, down from $3,115,000 at December 31, 2015. The most significant change in temporary difference components was an increase of $2,344,000 in the deferred tax liability associated with unrealized gains on available-for-sale securities.

The Corporation regularly reviews deferred tax assets for recoverability based on history of earnings, expectations for future earnings and expected timing of reversals of temporary differences. Realization of deferred tax assets ultimately depends on the existence of sufficient taxable income, including taxable income in prior carryback years, as well as future taxable income. Management believes the recorded net deferred tax asset at June 30, 2016 is fully realizable; however, if management determines the Corporation will be unable to realize all or part of the net deferred tax asset, the Corporation would adjust the deferred tax asset, which would negatively impact earnings.

Additional information related to income taxes is presented in Note 11 to the unaudited, consolidated financial statements.

INFLATION

The Corporation is significantly affected by the Federal Reserve Board's efforts to control inflation through changes in short-term interest rates. Beginning in September 2007, in response to concerns about weakness in the U.S. economy, the Federal Reserve lowered the fed funds target rate numerous times; in December 2008, it established a target range of 0% to 0.25%, which it maintained through mid-December 2015. On December 16, 2015, the Federal Reserve raised their target for the federal funds rate to 0.25% to 0.50%. This decision was based on data available that suggested economic activity had been expanding at a moderate pace. This included an increase in household spending, business fixed investments increasing, and an improvement in labor market conditions. Also, throughout this period, the Federal Reserve has injected massive amounts of liquidity into the nation's monetary system through a variety of programs. The Federal Reserve has purchased large amounts of securities in an effort to keep interest rates low and stimulate economic growth. Beginning in late 2013, the Federal Reserve began reducing the amount of securities purchased under its asset purchase program and then ended the program in October 2014, though still reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and continued to roll over maturing Treasury securities at auction. The Federal Reserve maintained their commitment to this policy in their June 15, 2016 statement and anticipates doing so until normalization of the level of the federal funds rate is well under way.

Despite the current low short-term rate environment, inflation statistics indicate that the overall rate of inflation is unlikely to significantly affect the Corporation's operations within the near future. Although management cannot predict future changes in the rates of inflation, management monitors the impact of economic trends, including any indicators of inflationary pressures, in managing interest rate and other financial risks.

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ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

MARKET RISK

Market risk is the risk of loss arising from adverse changes in market rates and prices of the Corporation's financial instruments. In addition to the effects of interest rates, the market prices of the Corporation's debt securities within the available-for-sale securities portfolio are affected by fluctuations in the risk premiums (amounts of spread over risk-free rates) demanded by investors. Management attempts to limit the risk that economic conditions would force the Corporation to sell securities for realized losses by maintaining a strong capital position (discussed in the "Stockholders' Equity and Capital Adequacy" section of Management's Discussion and Analysis) and ample sources of liquidity (discussed in the "Liquidity" section of Management's Discussion and Analysis).

The Corporation's two major categories of market risk are interest rate risk and equity securities risk, which are discussed in the following sections.

INTEREST RATE RISK

Business risk arising from changes in interest rates is an inherent factor in operating a bank. The Corporation's assets are predominantly long-term, fixed-rate loans and debt securities. Funding for these assets comes principally from shorter-term deposits and borrowed funds. Accordingly, there is an inherent risk of lower future earnings or decline in fair value of the Corporation's financial instruments when interest rates change.

The Corporation uses a simulation model to calculate the potential effects of interest rate fluctuations on net interest income and the market value of portfolio equity. For purposes of these calculations, the market value of portfolio equity includes the fair values of financial instruments, such as securities, loans, deposits and borrowed funds, and the book values of nonfinancial assets and liabilities, such as premises and equipment and accrued expenses. The model measures and projects the amount of potential changes in net interest income, and calculates the discounted present value of anticipated cash flows of financial instruments, assuming an immediate increase or decrease in interest rates. Management ordinarily runs a variety of scenarios within a range of plus or minus 100-400 basis points of current rates.

The model makes estimates, at each level of interest rate change, regarding cash flows from principal repayments on loans and mortgage-backed securities and call activity on other investment securities. Actual results could vary significantly from these estimates, which could result in significant differences in the calculations of projected changes in net interest income and market value of portfolio equity. Also, the model does not make estimates related to changes in the composition of the deposit portfolio that could occur due to rate competition, and the table does not necessarily reflect changes that management would make to realign the portfolio as a result of changes in interest rates.

The Corporation's Board of Directors has established policy guidelines for acceptable levels of interest rate risk, based on an immediate increase or decrease in interest rates. The policy limits acceptable fluctuations in net interest income from the baseline (flat rates) one-year scenario and variances in the market value of portfolio equity from the baseline values based on current rates.

Table XIII, which follows this discussion, is based on the results of calculations performed using the simulation model as of April 30, 2016 and December 31, 2015. The table shows that as of the respective dates, the changes in net interest income and changes in market value were within the policy limits in all scenarios.

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TABLE XIII - THE EFFECT OF HYPOTHETICAL CHANGES IN INTEREST RATES

April 30, 2016 Data
(In Thousands) Period Ending April 30, 2017

Basis Point Change in Rates	Interest Income	Interest Expense	Net Interest Income (NII)	NII % Change	NII Risk Limit
+400	$51,989	$21,581	$ 30,408	-17.8 %	25.0 %
+300	49,254	16,936	32,318	-12.6 %	20.0 %
+200	46,486	12,380	34,106	-7.8 %	15.0 %
+100	43,641	8,020	35,621	-3.7 %	10.0 %
0	40,711	3,713	36,998	0.0 %	0.0 %
-100	38,093	3,194	34,899	-5.7 %	10.0 %
-200	36,860	3,192	33,668	-9.0 %	15.0 %
-300	36,402	3,192	33,210	-10.2 %	20.0 %
-400	36,269	3,192	33,077	-10.6 %	25.0 %

Market Value of Portfolio Equity at April 30, 2016

Basis Point Change in Rates	Present Value Equity	Present Value % Change	Present Value Risk Limit
+400	$ 176,279	-21.4 %	50.0 %
+300	186,707	-16.7 %	45.0 %
+200	198,706	-11.4 %	35.0 %
+100	210,669	-6.0 %	25.0 %
0	224,161	0.0 %	0.0 %
-100	222,397	-0.8 %	25.0 %
-200	229,441	2.4 %	35.0 %
-300	263,537	17.6 %	45.0 %
-400	295,145	31.7 %	50.0 %

December 31, 2015 Data
(In Thousands) Period Ending December 31, 2016

Basis Point Change in Rates	Interest Income	Interest Expense	Net Interest Income (NII)	NII % Change	NII Risk Limit
+400	$52,181	$ 21,985	$ 30,196	-20.8 %	25.0 %
+300	49,687	17,282	32,405	-15.0 %	20.0 %
+200	47,136	12,659	34,477	-9.6 %	15.0 %
+100	44,546	8,109	36,437	-4.4 %	10.0 %
0	41,835	3,715	38,120	0.0 %	0.0 %
-100	39,116	3,171	35,945	-5.7 %	10.0 %

-200	37,417	3,168	34,249	-10.2	%	15.0	%
-300	36,838	3,168	33,670	-11.7	%	20.0	%
-400	36,689	3,168	33,521	-12.1	%	25.0	%

Market Value of Portfolio Equity at December 31, 2016

Basis Point Change in Rates	Present Value Equity	Present Value % Change		Present Value Risk Limit	
+400	$ 167,741	-24.4	%	50.0	%
+300	179,772	-18.9	%	45.0	%
+200	193,823	-12.6	%	35.0	%
+100	207,803	-6.3	%	25.0	%
0	221,750	0.0	%	0.0	%
-100	223,517	0.8	%	25.0	%
-200	225,185	1.5	%	35.0	%
-300	250,353	12.9	%	45.0	%
-400	286,210	29.1	%	50.0	%

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EQUITY SECURITIES RISK

The Corporation's equity securities portfolio consists of investments in stocks of banks and bank holding companies. Investments in bank stocks are subject to risk factors that affect the banking industry in general, including credit risk, competition from non-bank entities, interest rate risk and other factors, which could result in a decline in market prices. Also, losses could occur in individual stocks held by the Corporation because of specific circumstances related to each bank.

Equity securities held as of June 30, 2016 and December 31, 2015 are presented in Table XIV. Table XIV presents quantitative data concerning the effects of a decline in fair value of the Corporation's equity securities of 10% or 20%. The data in Table XIV does not reflect the effects of any appreciation in value that may occur, nor does it present the Corporation's maximum exposure to loss on equity securities, which would be 100% of their fair value as of June 30, 2016.

TABLE XIV - EQUITY SECURITIES RISK
(In Thousands)

	June 30, 2016	Dec. 31, 2015
Cost	$ 1,171	$ 1,680
Fair Value	1,609	2,386
Hypothetical 10% Decline In Market Value	(161)	(239)
Hypothetical 20% Decline In Market Value	(322)	(477)

ITEM 4. CONTROLS AND PROCEDURES

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

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

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PART II – OTHER INFORMATION

Item 1. Legal Proceedings

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

Item 1A. Risk Factors

There have been no material changes from the risk factors previously disclosed in Item 1A of the Corporation's Form 10-K filed February 18, 2016.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Issuer Purchases of Equity Securities

The following table sets forth a summary of the purchases by the Corporation, on the open market, of its equity securities during the second quarter 2016:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet be Purchased Under the Plans or Programs
April 1 - 30, 2016	32,950	$ 19.82	622,500	600,000
May 1 - 31, 2016	0	$ 0	0	600,000
June 1 - 30, 2016	0	$ 0	0	600,000

Notes to Table:

1. Effective July 17, 2014, the Corporation established a treasury stock repurchase program authorizing repurchase of up to 622,500 shares of the Corporation's common stock, or approximately 5% of the Corporation's issued and outstanding shares at July 16, 2014. As permitted by securities laws and other legal requirements and subject to market conditions and other factors, purchases under the program could be made from time to time in the open market at prevailing prices, or through privately negotiated transactions.

In April 2016, the Corporation repurchased the remainder of the shares authorized under the program. In total, 622,500 shares were repurchased for a total cost of $12,140,000, at an average price of $19.50 per share.

2. Effective April 21, 2016, the Corporation's Board of Directors approved a new treasury stock repurchase program. Under the newly approved stock repurchase program, the Corporation is authorized to repurchase up to 600,000 shares of the Corporation's common stock or slightly less than 5% of the Corporation's issued and outstanding shares at April 19, 2016. Consistent with the previous program, the Board of Directors' April 21, 2016 authorization provides that: (1) the new treasury stock repurchase program shall be effective when publicly announced and shall continue thereafter until suspended or terminated by the Board of Directors, in its sole discretion; and (2) all shares of common stock repurchased pursuant to the new program shall be held as treasury shares and be available for use and reissuance for purposes as and when determined by the Board of Directors including, without limitation, pursuant to the Corporation's Dividend Reinvestment and Stock Purchase Plan and its equity compensation program. To date, no purchases have been made under this repurchase program.

Item 3. Defaults Upon Senior Securities

None

Item 4. Mine Safety Disclosures

Not applicable

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Item 5. Other Information

None

Item 6. Exhibits

2.	Plan of acquisition, reorganization, arrangement, liquidation or succession	Not applicable
3.	(i) Articles of Incorporation	Incorporated by reference to Exhibit 3.1 of the Corporation's Form 8-K filed September 21, 2009
3.	(ii) By-laws	Incorporated by reference to Exhibit 3.1 of the Corporation's Form 8-K filed April 19, 2013
4.	Instruments defining the rights of Security holders, including indentures	Not applicable
10.	Material contracts: 10.1 Form of Restricted Stock agreement dated May 3, 2016 between the Corporation and Independent Directors Terry L. Lehman and Frank G. Pellegrino pursuant to the Citizens & Northern Corporation Independent Directors Stock Incentive Plan	Filed herewith
11.	Statement re: computation of per share earnings	Information concerning the computation of earnings per share is provided in Note 2 to the unaudited consolidated financial statements, which is included in Part I, Item 1 of Form 10-Q
15.	Letter re: unaudited interim information	Not applicable
18.	Letter re: change in accounting principles	Not applicable
19.	Report furnished to security holders	Not applicable
22.	Published report regarding matters submitted to vote of security holders	Not applicable
23.	Consents of experts and counsel	Not applicable

24.	Power of attorney	Not applicable
31.	Rule 13a-14(a)/15d-14(a) certifications:	
	31.1 Certification of Chief Executive Officer	Filed herewith
	31.2 Certification of Chief Financial Officer	Filed herewith
32.	Section 1350 certifications	Filed herewith
99.	Additional exhibits	Not applicable
100.	XBRL-related documents	Not applicable
101.	Interactive data file	Filed herewith

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

	CITIZENS & NORTHERN CORPORATION
August 4, 2016	By:/s/ J. Bradley Scovill
Date	President and Chief Executive Officer
August 4, 2016	By: /s/ Mark A. Hughes
Date	Treasurer and Chief Financial Officer