

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549**

**FORM 10-K**

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 for the fiscal year ended December 31, 2019
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 for the transition period from \_\_\_\_\_ to \_\_\_\_\_.

Commission file number 0-17706

**QNB Corp.**

(Exact Name of Registrant as Specified in Its Charter)

Pennsylvania

(State or Other Jurisdiction of Incorporation or Organization)

23-2318082

(I.R.S. Employer Identification No.)

15 North Third Street, P.O. Box 9005 Quakertown, PA

(Address of Principal Executive Offices)

18951-9005

(Zip Code)

Registrant's Telephone Number, Including Area Code (215) 538-5600

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

Title of each class  
None

Name of each exchange on which registered  
N/A

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

Title of each class

Common Stock, \$0.625 par value

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

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

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  No

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

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

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

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

As of February 28, 2020, 3,522,888 shares of common stock of the registrant were outstanding. As of June 30, 2019, the aggregate market value of the common stock of the registrant held by non-affiliates was approximately \$117,583,368 based upon the average bid and asked prices of the common stock as reported on the OTC BB.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of registrant's Proxy Statement for the annual meeting of its shareholders to be held May 26, 2020 are incorporated by reference in Part III of this report.

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## PART I

### FORWARD-LOOKING STATEMENTS

In addition to historical information, this document contains forward-looking statements. Forward-looking statements are typically identified by words or phrases such as “believe,” “expect,” “anticipate,” “intend,” “estimate,” “project” and variations of such words and similar expressions, or future or conditional verbs such as “will,” “would,” “should,” “could,” “may” or similar expressions. The U.S. Private Securities Litigation Reform Act of 1995 provides a safe harbor in regard to the inclusion of forward-looking statements in this document and documents incorporated by reference.

Shareholders should note that many factors, some of which are discussed elsewhere in this document and in the documents that are incorporated by reference, could affect the future financial results of QNB Corp. and its subsidiary and could cause those results to differ materially from those expressed in the forward-looking statements contained or incorporated by reference in this document. These factors include, but are not limited to, the following:

- Volatility in interest rates and shape of the yield curve;
- Credit risk;
- Liquidity risk;
- Operating, legal and regulatory risks;
- Economic, political and competitive forces affecting QNB Corp.’s business; and
- The risk that the analysis of these risks and forces could be incorrect, and/or that the strategies developed to address them could be unsuccessful.

QNB Corp. (herein referred to as “QNB” or the “Company”) cautions that these forward-looking statements are subject to numerous assumptions, risks and uncertainties, all of which change over time, and QNB assumes no duty to update forward-looking statements. Management cautions readers not to place undue reliance on any forward-looking statements. These statements speak only as of the date of this Annual Report on Form 10-K, even if subsequently made available by QNB on its website or otherwise, and they advise readers that various factors, including those described above, could affect QNB’s financial performance and could cause actual results or circumstances for future periods to differ materially from those anticipated or projected. Except as required by law, QNB does not undertake, and specifically disclaims any obligation, to publicly release any revisions to any forward-looking statements to reflect the occurrence of anticipated or unanticipated events or circumstances after the date of such statements.

### ITEM 1. BUSINESS

#### Overview

QNB was incorporated under the laws of the Commonwealth of Pennsylvania on June 4, 1984. QNB is registered with the Board of Governors of the Federal Reserve System as a bank holding company under the Bank Holding Company Act of 1956 and conducts its business through its wholly-owned subsidiary, QNB Bank (the “Bank”).

Prior to December 28, 2007, the Bank was a national banking association organized in 1877 as The Quakertown National Bank, was chartered under the National Banking Act and was subject to Federal and state laws applicable to national banks. Effective December 28, 2007, the Bank became a Pennsylvania chartered commercial bank and changed its name to QNB Bank. The Bank, whose principal office is located in Quakertown, Bucks County, Pennsylvania, operated twelve full-service community banking offices in Bucks, Montgomery and Lehigh counties in southeastern Pennsylvania as of December 31, 2019.

The Bank is engaged in the general commercial banking business and provides a full range of banking services to its customers. These banking services consist of, among other things, attracting deposits and using these funds in making commercial loans, residential mortgage loans, consumer loans, and purchasing investment securities. These deposits are in the form of time, demand and savings accounts. Time deposits include certificates of deposit and individual retirement accounts. The Bank’s demand and savings accounts include money market accounts, interest-bearing demand accounts (including a higher yielding checking account), club accounts, traditional statement savings accounts, and a higher yielding online savings account.

At December 31, 2019, QNB had total assets of \$1,225,023,000, total loans receivable of \$820,616,000, total deposits of \$1,037,860,000 and total shareholders’ equity of \$120,717,000. For the year ended December 31, 2019, QNB reported net income of \$12,357,000 compared to net income for the year ended December 31, 2018 of \$11,335,000 and December 31, 2017 of \$8,289,000.

At February 20, 2020, the Bank had 196 full-time employees and seven part-time employees. The Bank's employees have a customer-oriented philosophy emphasizing personal service and flexible solutions which together make achieving our customers' goals possible. They maintain close contact with both the residents and local business people in the communities in which they serve, responding to changes in market conditions and customer requests in a timely manner.

### **Competition and Market Area**

The banking business is highly competitive, and the profitability of QNB depends principally upon the Bank's ability to compete in its market area. QNB faces intense competition within its market, both in making loans and attracting deposits. Bucks, Lehigh, and Montgomery counties have a high concentration of financial institutions, including large national and regional banks, community banks, savings institutions and credit unions. Some of QNB's competitors offer products and services that QNB currently does not offer, such as traditional trust services and full-service insurance.

In addition, as a result of consolidation in the banking industry, some of QNB's competitors may enjoy advantages such as greater financial resources, a wider geographic presence, more favorable pricing alternatives and lower origination and operating costs. However, QNB has been able to compete effectively with other financial institutions by emphasizing the establishment of long-term relationships and customer loyalty. A strong focus on small-business solutions, providing fast local decision-making on loans, exceptional personal customer service and technology solutions, including internet- and mobile-banking, electronic bill pay and remote deposit capture, also enable QNB to compete successfully.

Competition for loans and deposits comes principally from commercial banks, savings institutions, credit unions and non-bank financial service providers. Factors in successfully competing for deposits include providing excellent customer service, convenient locations and hours of operation, attractive rates, low fees, and alternative delivery systems. One such delivery system is remote deposit capture for those commercial customers that are not conveniently located near one of our branches, or mobile banking for retail customers. Successful loan origination tends to depend not only on interest rate and terms of the loan but also on being responsive and flexible to the customers' needs. While many competitors within the Bank's primary market have substantially higher legal lending limits, QNB often has the ability, through loan participations, to meet the larger lending needs of its customers.

QNB's success is dependent to a significant degree on economic conditions in southeastern Pennsylvania, especially Bucks, Lehigh and Montgomery counties, which it defines as its primary market. The banking industry is affected by general economic conditions, including the effects of recession, unemployment, declining real estate values, inflation, trends in the national and global economies, and other factors beyond QNB's control.

### **Monetary Policy and Economic Conditions**

The business of financial institutions is affected not only by general economic conditions, but also by the policies of various governmental regulatory agencies, including the Board of Governors of the Federal Reserve (the "Federal Reserve"). The Federal Reserve regulates money, credit conditions and interest rates to influence general economic conditions primarily through open market operations in U.S. government securities, changes in the discount rate on bank borrowings and changes in the reserve requirements against depository institutions' deposits. These policies and regulations significantly affect the overall growth and distribution of loans, investments and deposits, as well as the interest rates charged on loans and the interest rates paid on deposits.

The monetary policies of the Federal Reserve have had a significant effect on the operating results of financial institutions in the past and are expected to continue to have significant effects in the future. In view of the changing conditions in the economy and the financial markets in addition to the activities of monetary and fiscal authorities, the prediction of future changes in interest rates, credit availability or deposit levels is very challenging.

### **Supervision and Regulation**

Banks and bank holding companies operate in a highly-regulated environment and are regularly examined by Federal and state regulatory authorities. Federal statutes that apply to QNB and its subsidiary include the Bank Holding Company Act of 1956 ("BHCA"), the Federal Reserve Act and the Federal Deposit Insurance Act ("FDIA"), as those statutes have been significantly amended by recent laws such as the Dodd-Frank Wall Street Reform and Consumer Protection Act the "Dodd-Frank Act"), the Gramm-Leach-Bliley Act ("GLBA"), and others. In general, these statutes regulate the corporate governance of the Bank and eligible business activities of QNB and impose certain restrictions and limitations on such important matters as mergers and acquisitions, intercompany transactions, loans and dividends, and capital adequacy, among others. Other corporate governance requirements are imposed on QNB by Federal securities and other laws, including the Sarbanes-Oxley Act, described later.

The Company is under the jurisdiction of the Securities and Exchange Commission and of state securities commissions for matters relating to the offering and sale of its securities. In addition, the Company is subject to the Securities and Exchange Commission's rules and regulations relating to periodic reporting, proxy solicitation and insider trading.

Set forth below is a brief summary of some of the significant regulatory concepts and recent laws that affect QNB and the Bank. To the extent that the following information describes statutory or regulatory provisions, it is qualified in its entirety by references to the particular statutory or regulatory provisions themselves. Proposals to change banking laws and regulations are frequently introduced in Congress, the state legislatures, and before the various bank regulatory agencies. QNB cannot determine the likelihood of passage or timing of any such proposals or legislation or the impact they may have on QNB and its subsidiary. A change in law, regulations or regulatory policy may have a material effect on QNB and its subsidiary.

### **Bank Holding Company Regulation**

QNB is registered as a bank holding company and is subject to the regulations of the Federal Reserve under the BHCA. In addition, QNB Corp., as a Pennsylvania business corporation, is subject to the Pennsylvania Business Corporation Law of 1988 (the "BCL"), as amended, and to certain provisions of the Pennsylvania Banking Code of 1965, as amended (the "Banking Code").

Bank holding companies are required to file periodic reports with, and are subject to examination by, the Federal Reserve. The Federal Reserve's regulations require a bank holding company to serve as a source of financial and managerial strength to its subsidiary banks. As a result, the Federal Reserve, pursuant to its "source of strength" regulations, may require QNB to commit its resources to provide adequate capital funds to the Bank during periods of financial distress or adversity.

Federal Reserve approval may be required before QNB may begin to engage in any non-banking activity and before any non-banking business may be acquired by QNB.

### **Regulatory Restrictions on Dividends**

Dividend payments made by the Bank to the Company are subject to the Pennsylvania Banking Code, the FDIA, and the regulations of the Federal Deposit Insurance Corporation ("FDIC"). Under the Banking Code, no dividends may be paid except from "accumulated net earnings" (generally retained earnings). The Federal Reserve and the FDIC have formal and informal policies which provide that insured banks and bank holding companies should generally pay dividends only out of current operating earnings, with some exceptions. Under the FDIA, the Bank is prohibited from paying any dividends, making other distributions or paying any management fees if, after such payment, it would fail to satisfy its minimum capital requirements. See also "Supervision and Regulation – Bank Regulation".

In addition to the dividend restrictions described above, the banking regulators have the authority to prohibit or to limit the payment of dividends by the Bank if, in the banking regulator's opinion, payment of a dividend would constitute an unsafe or unsound practice in light of the financial condition of the Bank.

Under Pennsylvania law, QNB may not pay a dividend, if, after giving effect thereto, it would be unable to pay its debts as they become due in the usual course of business and, after giving effect to the dividend, the total assets of QNB would be less than the sum of its total liabilities plus the amount that would be needed, if QNB were to be dissolved at the time of distribution, to satisfy the preferential rights upon dissolution of shareholders whose rights are superior to those receiving the dividend.

It is also the policy of the Federal Reserve that a bank holding company generally only pay dividends on common stock out of net income available to common shareholders over the past year and only if the prospective rate of earnings retention appears consistent with a bank holding company's capital needs, asset quality, and overall financial condition. In the current financial and economic environment, the Federal Reserve has indicated that bank holding companies should carefully review their dividend policy and has discouraged dividend pay-out ratios at the 100% level unless both asset quality and capital are very strong. A bank holding company also should not maintain a dividend level that places undue pressure on the capital of such institution's subsidiaries, or that may undermine the bank holding company's ability to serve as a source of strength for such subsidiaries.

The minimum capital requirements implemented by Basel III, and described below under "Capital Adequacy," also introduced a capital conservation buffer, comprised of common equity Tier 1 capital, above a banking institution's minimum risk-based capital requirements in an amount greater than 2.5% of total risk-weighted assets in order to avoid limitations on certain distributions, including dividend payments.

Under these policies and subject to the restrictions applicable to the Bank, to remain "well capitalized," the Bank had approximately \$18,644,000 available for payment of dividends to the Company at December 31, 2019.

## Capital Adequacy

In July 2013, the Federal bank regulatory agencies adopted revisions to the agencies' capital adequacy guidelines and prompt corrective action rules, which were designed to enhance such requirements and implement the revised standards of the Basel Committee on Banking Supervision, commonly referred to as Basel III. The rules generally implemented higher minimum capital requirements, added a new common equity Tier 1 capital requirement, and established criteria that instruments must meet to be considered common equity Tier 1 capital, additional Tier 1 capital or Tier 2 capital. Tier 1 capital consists principally of common shareholders' equity, plus retained earnings, less certain intangible assets. Tier 2 capital includes the allowance for loan and lease losses (up to 1.25 percent of risk-weighted assets), qualifying preferred stock, subordinated debt, and qualifying Tier 2 minority interests. The current minimum capital requirements are a common equity Tier 1 capital ratio of 4.5%, a Tier 1 capital ratio of 6.0%, and a total capital ratio of 8.0%. In addition, in order to avoid limitations on certain capital distributions (including dividend payments and certain discretionary bonus payments to executive officers), as of January 1, 2019, a banking organization must hold a capital conservation buffer comprised of common equity Tier 1 capital above its minimum risk-based capital requirements in an amount greater than 2.5% of total risk-weighted assets. At December 31, 2019, QNB's Tier 1 capital and total capital (Tier 1 and Tier 2 combined) and common equity Tier 1 equity ratios were 12.76% and 13.82%, and 12.76%, respectively.

In addition to the risk-based capital guidelines, the Federal Reserve requires a bank holding company to maintain a minimum leverage ratio. This requires a minimum level of Tier 1 capital (as determined under the risk-based capital rules) to average total consolidated assets of 4% for those bank holding companies that have the highest regulatory examination ratings and are not contemplating or experiencing significant growth or expansion. The Federal Reserve expects all other bank holding companies to maintain a ratio of at least 1% to 2% above the stated minimum. At December 31, 2019, QNB's leverage ratio was 9.78%.

Pursuant to the prompt corrective action provisions of the FDIA, the Federal banking agencies have specified, by regulation, the levels at which an insured institution is considered well capitalized, adequately capitalized, undercapitalized, significantly undercapitalized, or critically undercapitalized. Under these regulations, an institution is considered well capitalized if it satisfies each of the following requirements:

- Total risk-based capital ratio of 10% or more.
- Tier 1 risk-based capital ratio of 8% or more.
- Common equity tier 1 risk-based capital ratio of 6.5% or more.
- Leverage ratio of 5% or more, and
- Not subject to any order or written directive to meet and maintain a specific capital level

At December 31, 2019 and 2018, the Bank qualified as well capitalized under these regulatory standards. See Note 20 of the Notes to Consolidated Financial Statements included at Item 8 of this Report for additional information.

## Bank Regulation

As a Pennsylvania-chartered insured commercial bank, the Bank is subject to extensive regulation and examination by the Pennsylvania Department of Banking and Securities (the "Department") and by the FDIC, which insures its deposits to the maximum extent permitted by law.

The Federal and state laws and regulations applicable to banks regulate, among other things, the scope of their business, their investments, the reserves required to be kept against deposits, the timing of the availability of deposited funds, the nature and amount of collateral for certain loans, the activities of a bank with respect to mergers and consolidations, and the establishment of branches. The laws and regulations governing the Bank generally have been promulgated to protect depositors and not for the purpose of protecting QNB's shareholders. This regulatory structure also gives the Federal and state banking agencies extensive discretion in connection with their supervisory and enforcement activities and examination policies, including policies with respect to the classification of assets and the establishment of adequate loan loss reserves for regulatory purposes. Any change in such regulation, whether by the Department, the FDIC or the United States Congress, could have a material impact on the Company, the Bank and their operations.

As a subsidiary bank of a bank holding company, the Bank is subject to certain restrictions imposed by the Federal Reserve Act on extensions of credit to QNB, on investments in the stock or other securities of QNB, and on taking such stock or securities as collateral for loans.

## **FDIC Insurance Assessments**

The Bank's deposits are insured to the applicable limits as determined by the FDIC, which is currently \$250,000 per depositor. Under the FDIC's risk-based assessment system, insured institutions were previously assigned one of four risk categories based on supervisory evaluations, regulatory capital levels and certain other factors. An institution's assessment rate depended largely on the category to which it was assigned, with institutions deemed less risky paying lower FDIC deposit insurance premiums. The Dodd-Frank Act required the FDIC to revise its procedures to base deposit insurance assessments on each insured institution's total assets less tangible equity instead of deposits and also mandated that the Deposit Insurance Fund achieve a reserve ratio of 1.35% of insured deposits by September 2020. Effective April 1, 2011, the range of possible base assessments was set between 2.5 and 45 basis points of total assets less tangible equity. Effective July 1, 2016, the FDIC eliminated the previously utilized risk categories and based assessments for most banks on certain financial measures and supervisory ratings derived from statistical modeling estimating the probability of failure over three years, and also set maximum rates for institutions with composite CAMELS ratings of 1 or 2 and minimum rates for other institutions. In connection with the Deposit Insurance Fund reserve ratio achieving 1.5% in July 2016, the total base assessment range (after possible adjustments) was reduced for most banks to 1.5 basis points to 30 basis points. As of the September 2019 assessment date, when the Deposit Insurance Fund reserve ratio reached or exceeded 1.38%, banks with less than \$10 billion of total consolidated assets began receiving certain "small bank assessment credits" for the portion of their assessments that contributed to the growth in the FDIC's fund reserve ratio from 1.15% to 1.35%; credits will be applied so long as the Deposit Insurance Fund reserve ratio is at or above 1.35%.

At June 30, 2019 and September 30, 2019 the Reserve Ratio was greater than 1.38% and the Bank received Small Institution Credits totaling \$273,000. For the years ended December 31, 2019, 2018 and 2017, the Bank recorded \$266,000 (net of Small Institution Credits), \$592,000 and \$525,000, respectively, in FDIC deposit insurance premium expense.

All insured institutions of the FDIC were required to pay assessments to fund interest payments on Financing Corporation (FICO) bonds. The Financing Corporation was created by Congress to issue bonds to finance the resolution of failed thrift institutions. The FDIC had the authority to set the Financing Corporation assessment rate every quarter. These assessments continued until the Financing Corporation bonds matured in 2019. The expense for 2019, 2018 and 2017 recorded by QNB was \$3,000, \$32,000 and \$52,000, respectively.

## **Federal Home Loan Bank System**

The Bank is a member of the Federal Home Loan Bank of Pittsburgh ("FHLB"), which is one of 11 regional Federal Home Loan Banks. Each Federal Home Loan Bank serves as a reserve or central bank for members within its assigned region. It is funded primarily from funds deposited by member institutions and proceeds from the sale of consolidated obligations of the Federal Home Loan Bank System. It makes loans to members (i.e. advances) in accordance with policies and procedures established by the board of directors of the Federal Home Loan Bank. At December 31, 2019, the Bank had \$11,817,000 of overnight FHLB advances outstanding.

The Bank is required to purchase and maintain stock in the FHLB as a condition of membership in an amount equal to 0.10% of its assets. In addition, each member is required to purchase and maintain activity-based stock of 4% of outstanding advances from the FHLB. At December 31, 2019, the Bank had \$1,061,000 in stock of the FHLB.

## **Community Reinvestment Act**

Under the Community Reinvestment Act, ("CRA") as amended the FDIC is required to assess all financial institutions that it regulates to determine whether these institutions are meeting the credit needs of the communities that they serve. The CRA focuses specifically on low- and moderate-income neighborhoods.

An institution's record is considered during the evaluation of any application made by such institutions for, among other things:

- Approval of a branch or other deposit facility;
- An office relocation or a merger; and
- Any acquisition of bank shares.

The CRA also requires that the regulatory agency make publicly available the evaluation of the Bank's record of meeting the credit needs of its entire community, including low- and moderate-income neighborhoods. This evaluation includes a descriptive rating of either outstanding, satisfactory, needs to improve, or substantial noncompliance, and a statement describing the basis for the rating. The Bank's most recent CRA rating was "Satisfactory".

## **USA Patriot Act**

The USA Patriot Act strengthens the anti-money laundering provisions of the Bank Secrecy Act. The Act requires financial institutions to establish certain procedures to be able to identify and verify the identity of its customers. Specifically, the Bank must have procedures in place to:

- Verify the identity of persons applying to open an account;
- Ensure adequate maintenance of the records used to verify a person's identity; and
- Determine whether a person is on any U.S. government agency list of known or suspected terrorists or a terrorist organization.

## **Sarbanes-Oxley Act of 2002**

The Sarbanes-Oxley Act is intended to bolster public confidence in the nation's capital markets by imposing new duties and penalties for non-compliance on public companies and their executives, directors, auditors, attorneys and securities analysts. Some of the more significant aspects of the Act as it relates to QNB include:

- Corporate Responsibility for Financial Reports - requires Chief Executive Officers ("CEOs") and Chief Financial Officers ("CFOs") to certify certain matters relating to a company's financial records and accounting and internal controls.
- Management Assessment of Internal Controls - requires auditors to certify the company's underlying controls and processes that are used to compile the financial results for companies that are accelerated filers.
- Real-time Issuer Disclosures - requires that companies provide real-time disclosures of any events that may affect the company's stock price or financial performance, generally within a 48-hour period.
- Criminal Penalties for Altering Documents - provides severe penalties for "whoever knowingly alters, destroys, mutilates" any record or document with intent to impede an investigation. Penalties include monetary fines and prison time.

The Act also imposes requirements for corporate governance, auditor independence, accounting standards, audit committee member independence and increased authority, executive compensation, insider loans and whistleblower protection. As a result of the Act, QNB adopted a Code of Business Conduct and Ethics applicable to its CEO, CFO and Controller, which meets the requirements of the Act, to supplement its long-standing Code of Ethics, which applies to all directors and employees.

QNB's Code of Business Conduct and Ethics can be found on the Bank's website at [www.qnbbank.com](http://www.qnbbank.com).

## **Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 ("Dodd-Frank Act")**

The Dodd-Frank Act was enacted on July 21, 2010. This law made significant changes to the bank regulatory structure and affects the lending, deposit, investment, trading and operating activities of financial institutions and their holding companies.

The Dodd-Frank Act created a new Consumer Financial Protection Bureau ("CFPB") with broad powers to supervise and enforce consumer protection laws. The CFPB has broad rule-making authority for a wide range of consumer protection laws that apply to all banks and savings institutions, including the authority to prohibit "unfair, deceptive or abusive" acts and practices. The CFPB has examination and enforcement authority over all banks and savings institutions with more than \$10 billion in assets. Banks and savings institutions with \$10 billion or less in assets such as the Bank will continue to be examined for compliance with the consumer laws by their primary bank regulators. The Dodd-Frank Act also weakened the Federal preemption rules that had been applicable for national banks and Federal savings associations and gave state attorneys general the ability to enforce Federal consumer protection laws.

Many of the provisions of the Dodd-Frank Act do not apply to the Bank, as it does not engage in many of the specific activities sought to be regulated by the Dodd-Frank Act. Many of the provisions, however, such as increased capital requirements and changes to FDIC insurance premiums already implemented, affected all banking entities. In addition, the financial crisis of 2008 and the enactment of the Dodd-Frank Act in response to that crisis has resulted in an era of increased regulatory oversight over all financial entities. The ultimate changes resulting from the Dodd-Frank Act may impact the profitability of our business activities, require changes to certain of our business practices, impose upon us more stringent capital, liquidity and leverage ratio requirements or otherwise adversely affect our business. These changes may also require us to invest significant management attention and resources to evaluate and make necessary changes in order to comply with new statutory and regulatory requirements.

## **Economic Growth, Regulatory Relief, and Consumer Protection Act**

On May 24, 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act (the "EGRC Act"), which was designed to ease certain restrictions imposed by the Dodd-Frank Act, was enacted into law. Most of the changes made by the EGRC Act can be grouped into five general areas: mortgage lending; certain regulatory relief for "community" banks; enhanced consumer protections



in specific areas, including subjecting credit reporting agencies to additional requirements; certain regulatory relief for large financial institutions, including increasing the threshold at which institutions are classified as systemically important financial institutions (from \$50 billion to \$250 billion) and therefore subject to stricter oversight, and revising the rules for larger institution stress testing; and certain changes to Federal securities regulations designed to promote capital formation. Some of the key provisions of the EGRC Act as it relates to community banks and bank holding companies include, but are not limited to: (i) designating mortgages held in portfolio as “qualified mortgages” for banks with less than \$10 billion in assets, subject to certain documentation and product limitations; (ii) exempting banks with less than \$10 billion in assets (and total trading assets and trading liabilities of 5% or less of total assets) from Volcker Rule requirements relating to proprietary trading; (iii) simplifying capital calculations for banks with less than \$10 billion in assets by requiring Federal banking agencies to establish a community bank leverage ratio of Tier 1 capital to average consolidated assets of not less than 8% or more than 10%, and provide that banks that maintain Tier 1 capital in excess of such ratio will be deemed to be in compliance with risk-based capital and leverage requirements; (iv) assisting smaller banks with obtaining stable funding by providing an exception for reciprocal deposits from FDIC restrictions on acceptance of brokered deposits; (v) raising the eligibility for use of short-form Call Reports from \$1 billion to \$5 billion in assets; (vi) clarifying definitions pertaining to high volatility commercial real estate loans (HVCRE), which require higher capital allocations, so that only loans with increased risk are subject to higher risk weightings; and (vii) changing the eligibility for use of the small bank holding company policy statement from institutions with under \$1 billion in assets to institutions with under \$3 billion in assets. As noted, the EGRC Act as implemented by the Federal Reserve Board effective August 30, 2018, raised the threshold of the Federal Reserve Board’s “Small Bank Holding Company” exception to the application of consolidated capital requirements from \$1 billion to \$3 billion of consolidated assets. Consequently, bank holding companies having less than \$3 billion of consolidated assets are not subject to the consolidated capital requirements unless otherwise directed by the Federal Reserve Board.

Section 201 of the EGRC Act directed the federal banking agencies to develop a community bank leverage ratio (“CBLR”) of not less than 8% and not more than 10% for qualifying community banks and bank holding companies with total consolidated assets of less than \$10 billion. Qualifying community banking organizations that exceed the CBLR level established by the agencies, and that elect to be covered by the CBLR framework, will be considered to have met: (i) the generally applicable leverage and risk-based capital requirements under the banking agencies’ capital rules; (ii) the capital ratio requirements necessary to be considered “well capitalized” under the banking agencies’ prompt corrective action framework in the case of insured depository institutions; and (iii) any other applicable capital or leverage requirements.

On November 13, 2019, the Federal banking agencies published a final rule that provides for a simple measure of capital adequacy for certain community banking organizations, consistent with Section 201 of the EGRC Act. The final rule is effective on January 1, 2020. Under the EGRC Act, depository institutions and depository institution holding companies that have less than \$10 billion in total consolidated assets and meet other qualifying criteria, including a leverage ratio (equal to tier 1 capital divided by average total consolidated assets) of greater than 9%, will be eligible to opt into the community bank leverage ratio framework (qualifying community banking organizations). Qualifying community banking organizations that elect to use the community bank leverage ratio framework and that maintain a leverage ratio of greater than 9% will be considered to have satisfied the generally applicable risk-based and leverage capital requirements in the agencies’ generally applicable capital rules and, if applicable, will be considered to have met the well-capitalized ratio requirements for purposes of prompt corrective action framework under Section 38 of the FDIA. The final rule includes a two-quarter grace period during which a qualifying community banking organization that temporarily fails to meet any of the qualifying criteria, including the greater than 9% leverage ratio requirement, generally would still be deemed well-capitalized so long as the banking organization maintains a leverage ratio greater than 8%. At the end of the grace period, the banking organization must meet all qualifying criteria to remain in the community bank leverage ratio framework or otherwise must comply with and report under the generally applicable rule. Similarly, a banking organization that fails to maintain a leverage ratio greater than 8% would not be permitted to use the grace period and must comply with the capital rule’s generally applicable requirements and file the appropriate regulatory reports.

QNB does not currently meet all the requirements under the EGRC Act, including the CBLR framework, to be considered a qualifying community banking organization. QNB does not believe, however, that the changes resulting from the EGRC Act will materially impact QNB’s business, operations, or financial results going forward.

### **Possible Future Legislation**

Congress is often considering some financial industry legislation, and the Federal banking agencies routinely propose new regulations. The Company cannot predict the future effect any new legislation, or new rules adopted by Federal or state banking agencies, will have on the business of the Company and its subsidiaries. Given that the financial industry remains under scrutiny, the Company expects that there will be legislative and regulatory actions that may materially affect the banking industry in the foreseeable future.

### **Additional Information**

QNB’s principal executive offices are located at 320 West Broad Street, Quakertown, Pennsylvania. Its telephone number is (215) 538-5600.

QNB also makes its periodic and current reports available, including this annual report for Form 10-K, free of charge, on its website, [www.qnbbank.com](http://www.qnbbank.com), as soon as reasonably practicable after such material is electronically filed with the SEC. Information available on the website is not a part of, and should not be incorporated into, this annual report on Form 10-K. In addition, the SEC maintains a website that contains reports, proxy and information statements and other information regarding registrants, including QNB, that file electronically with the SEC which can be accessed at [www.sec.gov](http://www.sec.gov).

## **ITEM 1A. RISK FACTORS**

The following discusses risks that management believes are specific to our business and could have a negative impact on QNB's financial performance. When analyzing an investment in QNB, the risks and uncertainties described below, together with all of the other information included or incorporated by reference in this report, should be carefully considered. This list should not be viewed as comprehensive and may not include all risks that may affect the financial performance of QNB.

### **Our net interest income, net income and results of operations are sensitive to fluctuations in interest rates.**

QNB's profitability is largely a function of the spread between the interest rates earned on earning assets and the interest rates paid on deposits and other interest-bearing liabilities. Like most financial institutions, QNB's net interest income and margin will be affected by general economic conditions and other factors, including fiscal and monetary policies of the Federal government, that influence market interest rates and QNB's ability to respond to changes in such rates. At any given time, QNB's assets and liabilities may be such that they are affected differently by a change in interest rates. As a result, an increase or decrease in rates, the length of loan terms or the mix of adjustable- and fixed-rate loans or investment securities in QNB's portfolio could have a positive or negative effect on its net income, capital and liquidity. Although management believes it has implemented strategies and guidelines to reduce the potential effects of adverse changes in interest rates on results of operations, any substantial and prolonged change in market interest rates could affect operating results negatively.

### **We are subject to credit risk in connection with our lending activities, and our financial condition and results of operations may be negatively affected by economic conditions and other factors that could adversely affect our customers.**

As a lender, QNB is exposed to the risk that its borrowers may be unable to repay their loans and that the current market value of any collateral securing the payment of their loans may not be sufficient to assure repayment in full. Credit losses are inherent in the lending business and could have a material adverse effect on the operating results of QNB. Adverse changes in the economy or business conditions, either nationally or in QNB's market areas, could increase credit-related losses and expenses and/or limit growth. Substantially all of QNB's loans are to businesses and individuals in its limited geographic area and any economic decline in this market could impact QNB adversely. QNB makes various assumptions and judgments about the collectability of its loan portfolio and provides an allowance for loan losses based on a number of factors. If these assumptions are incorrect, the allowance for loan losses may not be sufficient to cover losses and may cause QNB to increase the allowance in the future by increasing the provision for loan losses, thereby having an adverse effect on operating results. QNB has adopted underwriting and credit monitoring procedures and credit policies that management believes are appropriate to control these risks; however, such policies and procedures may not prevent unexpected losses that could have a material adverse effect on QNB's financial condition or results of operations.

### **A deterioration in regional or national economic conditions may adversely affect our financial condition and results of operations.**

QNB primarily provides banking services to customers located in the Bucks, Lehigh and Montgomery Counties in Pennsylvania. Adverse effects of a regional economic downturn could affect QNB's ability to attract deposits and qualified loans. Economic factors impacting the local economy with this region, such as a decline in real estate values, unemployment, and natural disasters, may have a negative impact on credit-worthiness of customers, the value of collateral, and customers' ability to repay loans, which would result in write-downs, increases in non-performing loans, and a decline in QNB's financial performance measurements. Unlike larger banks that are more geographically diversified, we provide banking and financial services locally and therefore are more affected by adverse local economic conditions.

Similarly, potential adverse effects of any national economic downturn or concerns with the stability of the financial markets could lead to lack of consumer confidence, increased market volatility, and a general reduction in business activity. Such events may result in increased regulation of the financial services industry and increased compliance costs; greater difficulty in assessing the creditworthiness of customers and increased credit risk; greater difficulty in originating loans that meet our underwriting criteria; liquidity issues to the extent that it becomes more difficult to borrow from third parties, including other financial institutions; and limitations on growth.

### **We face significant competition from other banks and financial institutions in our market area, many of which are larger in terms of asset size and market capitalization.**

The financial services industry is highly competitive, with competition for attracting and retaining deposits and making loans coming from other banks and savings institutions, credit unions, mutual fund companies, insurance companies and other non-bank businesses. Many of QNB's competitors are much larger in terms of total assets and market capitalization, have a higher lending limit, have greater access to capital and funding, and offer a broader array of financial products and services. In light of this, QNB's ability to continue to compete effectively is dependent upon its ability to maintain and build relationships by delivering top quality service. Competition within the financial services industry also impacts QNB's ability to attract and retain low-cost deposits which could impact QNB's liquidity. Lowering loan rates and increasing deposit rates compresses the interest rate margin and profitability.

At December 31, 2019, our lending limit per borrower was approximately \$17,758,000. Accordingly, the size of loans that we may offer to potential borrowers (without participation by other lenders) is less than the size of loans that many of our competitors with larger capitalization are able to offer. Our legal lending limit also impacts the efficiency of our lending operation because it tends to lower our average loan size, which means we have to generate a higher number of transactions to achieve the same portfolio volume. We may engage in loan participations with other banks for loans in excess of our legal lending limit. However, there can be no assurance that such participations will be available or on terms which are favorable to us and our customers.

**Our results of operations may be adversely affected by other-than-temporary impairment charges relating to our debt securities.**

QNB purchases U.S. Government and U.S. Government agency debt securities, U.S. Government agency issued mortgage-backed securities or collateralized mortgage obligation securities, obligations of states and municipalities and corporate debt securities. QNB is exposed to the risk that the issuers of these debt securities may experience significant deterioration in credit quality which could impact the market value of such issuer's securities. QNB periodically evaluates its debt securities to determine if market value declines are other-than-temporary. Once a decline is determined to be other-than-temporary, the value of the security is reduced and a corresponding charge to earnings is recognized for the credit related portion of the impairment.

**Our results of operations may be adversely affected by fair value declines in our investments in equity securities.**

The Company's investment in marketable equity securities primarily consists of investments in large cap stock companies. Changes in fair value are recorded in unrealized gain/(losses) in non-interest income. These equity securities are carried at fair value and are no longer analyzed for impairment on an ongoing basis beginning in 2018. As a result of prolonged declines in some equity securities' fair values, \$80,000 in impairment charges were taken in 2017. QNB had 24 equity securities with unrealized losses of approximately \$442,000 at December 31, 2019. The severity and duration of the fair value declines are consistent with current stock market developments.

At December 31, 2019, the Bank had \$1,061,000 in capital stock of the FHLB and \$12,000 in capital stock of ACBB. These equity securities are restricted in that they can only be sold back to the respective institutions or another member institution at par. Therefore, they are less liquid than other tradable equity securities, their fair value is equal to amortized cost, and no impairment write-downs have been recorded on these securities.

**Our assets at December 31, 2019 included a deferred tax asset and we may not be able to realize the full benefit of that asset.**

As of December 31, 2019, QNB had a net deferred tax asset of \$1,441,000. Our ability to realize these tax benefits ultimately depends on the existence of sufficient taxable income of the appropriate character (ordinary income or capital gains) within the applicable carryback and carryforward periods provided under the tax law. Estimating whether the deferred tax asset will be realized requires us to exercise significant judgment and is inherently uncertain because it requires the prediction of future occurrences. The deferred tax asset may be reduced in the future if estimates of future income, our tax planning strategies, or tax rate changes resulting from Federal tax reform do not support the amount of the deferred tax asset. If it is determined in the future that a valuation allowance of the deferred tax asset is necessary, we may incur a charge to earnings resulting and a reduction to regulatory capital for the amount included in any such allowance.

**A disruption in components of our business infrastructure resulting from financial or technological difficulties of our third-party vendors on which we rely could adversely affect our business.**

Third parties provide key components of our business infrastructure, such as Internet connections, software platforms and network access. Any disruption in Internet, network access or other voice or data communication services provided by these third parties or any failure of these third parties to handle current or higher volumes of use could adversely affect the ability to deliver products and services to clients and otherwise to conduct business. Disruptions or failures in the business infrastructure or operating systems that support our business and customers, or cyber-attacks or security breaches of the networks, systems, or devices that our customers use to access our products and services, could damage our reputation, cause us to incur additional expenses, result in losses, or subject us to regulatory sanctions or additional regulatory scrutiny, any of which could adversely affect our results of operations or financial condition.

**Our failure to properly or timely utilize effective technologies to deliver our products and services, or a systems failure or breach of network security with respect to our information systems could adversely affect our business.**

The market for financial services is increasingly affected by advances in technology, including developments in telecommunications, data processing, computers, automation, Internet-based banking and mobile banking. Our ability to compete successfully in our markets may depend on the extent to which we are able to exploit such technological changes. However, we can provide no assurance

that we will be able to properly or timely anticipate or implement such technologies or properly train our staff to use such technologies. Any failure to adapt to new technologies could adversely affect our business, financial condition or operating results.

In addition, we rely heavily on our information systems to conduct business. Maintaining and protecting those systems is difficult and expensive, as is dealing with any failure, interruption or breach in security of these systems, whether due to acts or omissions by us or by a third party and whether intentional or not. Any such failure, interruption or breach could result in failures or disruptions in our customer relationship management or our information systems. The policies, procedures and technical safeguards we have in place to prevent or limit the effect of any failure, interruption or security breach of our information systems may be insufficient to prevent or remedy the effects of any such event. Moreover, as cyber threats continue to evolve, we may be required to expend significant additional resources to modify or enhance our protective measures relating to information security. The occurrence of any failures, interruptions or security breaches of our information systems could damage our reputation, cause us to incur additional expenses, result in losses, or subject us to regulatory sanctions or additional regulatory scrutiny, any of which could adversely affect our business, financial condition or operating results.

**Changes in accounting standards applicable to us could materially impact how we report our financial condition and results of operations.**

Our accounting policies and methods are fundamental to how we record and report our financial condition and results of operations. From time to time the FASB changes the financial accounting and reporting standards that govern the preparation of our financial statements.

These changes can be hard to predict and can materially impact how we record and report our financial condition and results of operations. In some cases, we could be required to apply a new or revised standard retroactively, resulting in our restating prior period financial statements. Management believes the current financial statements are prepared in accordance with U.S. generally accepted accounting principles.

**A new accounting standard, which requires us to measure certain financial assets (including loans) using current expected credit losses (“CECL”) beginning in calendar year 2023, will likely result in material changes to our allowance for loan losses.**

Current U.S. GAAP requires an incurred loss methodology for recognizing credit losses that delays recognition until it is probable that a loss has been incurred as of the balance sheet date. The Financial Accounting Standards Board has adopted a new accounting standard, effective for QNB beginning January 1, 2023, referred to as CECL. The new accounting standard replaces the current loss methodology with a methodology that reflects current expected credit losses and requires consideration of a broader range of reasonableness and reportable information to determine credit loss estimates. QNB is in the process of evaluating the impact of the adoption of the new accounting standard on QNB’s financial statements; however, it is expected that the allowance for loan losses will materially change upon the adoption of CECL. Any increase in our allowance for loan losses may have a material adverse effect on our financial condition and results of operations.

**We operate in a highly regulated environment and are subject to examination and supervision by bank regulatory agencies, which could have an adverse impact on our operations or increase the cost of our operations.**

We operate in a highly regulated environment and are subject to extensive examination by the Board of Governors of the Federal Reserve System, the FDIC, and the Pennsylvania Department of Banking and Securities. The bank regulatory agencies exercise broad discretion in connection with their supervisory and enforcement activities. Federal and state banking laws and regulations are designed primarily to protect depositors, the deposit funds, and consumers, and not necessarily shareholders of a financial institution. Banking regulations or the activities of bank regulatory agencies may, for example, limit a financial institution’s growth and potential shareholder returns by restricting certain activities such as the payment of dividends, expansion of branch offices, and acquisition activities.

The significant laws and regulations that govern our activities are described under “Item 1 - Description of Business” in this Form 10-K. These laws and regulations, along with existing tax, accounting, securities, and monetary laws, regulations, standards, policies, and interpretations control the manner in which financial institutions conduct business. Such laws, regulations, standards, policies, and interpretations are constantly evolving and may change significantly over time. The potential exists for additional federal or state laws or regulations, or new policies or interpretations by regulatory agencies having jurisdiction over our activities, to affect many aspects of our operations, including capital requirements, lending and funding practices, and liquidity standards. Additional laws, regulations or other regulatory requirements, or any substantial change in regulation and oversight, may have a material impact on our operations by increasing our cost of regulatory compliance and of doing business and otherwise affecting our operations, and may significantly affect the markets in which we do business, the markets for and value of our investments, the fees we charge and our ongoing operations, costs and profitability.

**If we lose the availability of wholesale funding we may be unable to support interest-earning asset growth, which could adversely impact our operating results and liquidity.**

Management periodically uses wholesale funding sources to support loan demand and deposit withdrawals and to provide sufficient liquidity. Wholesale funding primarily is made up of borrowings from the FHLB but may also include unsecured Federal funds from correspondent banks, Federal advances and wholesale certificates of deposit.

If wholesale funding becomes unavailable, QNB may need to reduce interest-earning asset growth through production reduction, sale of assets, or participating out future and current loans; this could adversely impact future net income. A termination or change in borrowings from the FHLB, the Federal Reserve or correspondent banks may have an adverse effect on our liquidity and operating results.

**Our disclosure controls and procedures and our internal control over financial reporting may not achieve their intended objectives.**

Management diligently reviews and updates its internal controls, disclosure controls and procedures, and corporate governance policies and procedures. Our disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by QNB in reports filed or submitted under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Management believes that any disclosure controls and procedures or internal controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Any undetected circumvention of these controls could have a material adverse impact on QNB's financial condition and results of operations.

These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

**We may not be able to attract and retain highly qualified personnel to execute our business strategy.**

Our success depends upon the ability to attract and retain highly motivated, well-qualified personnel. We face significant competition in the recruitment of qualified employees. Our ability to execute our business strategy and provide high-quality service may suffer if we are unable to recruit or retain a sufficient number of qualified employees or if the costs of employee compensation or benefits increase substantially. QNB currently has employment agreements and change of control agreements with five of its senior officers.

**Uncertainty relating to the expected phase-out of the London Interbank Offered Rate ("LIBOR") in 2021 may adversely affect us.**

LIBOR has been used extensively in the United States as a reference rate for various financial contracts, including adjustable-rate loans, asset-backed securities, and interest rate swaps. In 2017, the Chief Executive of the United Kingdom Financial Conduct Authority, which regulates LIBOR, announced that the FCA will not compel panel banks to submit rates for the calculation of LIBOR after 2021. The announcement means that the continuation of LIBOR on the current basis cannot be guaranteed after 2021. At this time, no consensus exists as to what rate or rates may become acceptable alternatives to LIBOR, and it is impossible to predict the effect of any such alternatives on the value of LIBOR-based variable rate loans and other securities or financial arrangements, given LIBOR's current role in determining market interest rates globally. The uncertainty as to the nature and effect of such reforms and actions relating to the discontinuance of LIBOR may adversely affect the value of and return on certain of our financial assets and liabilities that are based on or are linked to LIBOR, which may adversely affect the Company's results of operations or financial condition. In addition, LIBOR-related reforms may also require changes to the agreements that govern these LIBOR-based products, as well as our internal systems and processes.

**Acts of terrorism and other external events, including natural disasters and epidemics, could impact our ability to conduct business.**

Financial institutions have been, and continue to be, targets of terrorist threats aimed at compromising operating and communication systems. Other external events, including natural disasters and epidemics could impact our business continuity. Such events could cause significant damage, impact the stability of our facilities and result in additional expenses, impair the ability of our borrowers to repay their loans, and result in the loss of revenue. While we have established and regularly test disaster recovery procedures, the occurrence of any such event could have a material adverse effect on our business, operations and financial condition.

**ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

## ITEM 2. PROPERTIES

The principal office of both QNB Bank and QNB Corp. is located at 15 North Third Street, Quakertown, Pennsylvania. QNB Bank conducts business from its principal office and eleven other branch offices located in Bucks, Lehigh, and Montgomery Counties in Pennsylvania. QNB Bank owns its principal office, three branch locations, its administrative and operations facility and a computer facility. QNB Bank leases its remaining eight branch properties. The leases on the properties generally contain renewal options. In management's opinion, these properties are in good condition and are currently adequate for QNB's purposes.

The following table details QNB Bank's properties:

### Location

• Quakertown, PA – Downtown Branch (Principal Office) - 15 North Third Street	Owned
• Quakertown, PA – Towne Bank Center - 320-322 West Broad Street	Owned
• Quakertown, PA – Computer Center - 121 West Broad Street	Owned
• Quakertown, PA – Country Square Branch - 240 South West End Boulevard	Leased
• Quakertown, PA – Quakertown Commons Branch - 901 South West End Boulevard	Leased
• Dublin, PA – Dublin Branch - 161 North Main Street	Leased
• Pennsburg, PA – Upper Perkiomen Valley Branch - 410 Pottstown Avenue	Leased
• Coopersburg, PA – Coopersburg Branch - 51 South Third Street	Owned
• Perkasio, PA – Perkasio Branch - 607 Chestnut Street	Owned
• Souderton, PA – Souderton Branch - 750 Route 113	Leased
• Wescosville, PA – Wescosville Branch - 950 Mill Creek Road	Leased
• Colmar, PA – Colmar Branch - 127 Bethlehem Pike	Owned
• Warminster, PA – Warminster Branch - 1402 West Street Road	Leased
• Allentown, PA – Allentown Branch - 535 N. 19 <sup>th</sup> Street	Leased

## ITEM 3. LEGAL PROCEEDINGS

Although there are currently no material proceedings to which QNB is the subject, future litigation that arises during the normal course of QNB's business could be material and have a negative impact on QNB's earnings. Future litigation also could adversely impact the reputation of QNB in the communities that it serves.

## ITEM 4. MINE SAFETY DISCLOSURES

None.

## PART II

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

#### Stock Information

QNB common stock is quoted on the over-the-counter bulletin board ("OTCBB"). QNB had approximately 659 shareholders of record as of February 28, 2020.

The following table sets forth the high and low bid and ask stock prices for QNB common stock on a quarterly basis during 2019 and 2018. These prices reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not necessarily represent actual transactions.

	High		Low		Cash dividend per share
	Bid	Ask	Bid	Ask	
<b>2019</b>					
First Quarter	\$ 38.24	\$ 39.00	\$ 36.25	\$ 37.00	\$ 0.33
Second Quarter	38.00	38.25	36.52	36.75	0.33
Third Quarter	36.90	37.00	36.07	36.10	0.33
Fourth Quarter	38.94	40.00	36.55	36.75	0.33
<b>2018</b>					
First Quarter	\$ 47.75	\$ 50.00	\$ 43.60	\$ 43.80	\$ 0.32
Second Quarter	46.80	47.45	44.05	44.40	0.32
Third Quarter	46.90	47.50	45.80	46.15	0.32
Fourth Quarter	45.95	46.20	38.10	39.99	0.32

QNB has traditionally paid quarterly cash dividends on the last Friday of each quarter. The Company expects to continue the practice of paying quarterly cash dividends to its shareholders; however, future dividends are dependent upon future earnings, financial condition, appropriate legal restrictions, and other factors relevant at the time the board of directors considers declaring a dividend. Certain laws restrict the amount of dividends that may be paid to shareholders in any given year. See "Shareholders' Equity - Capital Adequacy" included in Item 7 of this Form 10-K filing and Note 20 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K filing, for additional information that discusses and quantifies this regulatory restriction.

The following table provides information on repurchases by QNB of its common stock in each month of the quarter ended December 31, 2019.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan	Maximum Number of Shares that may yet be Purchased Under the Plan
October 1, 2019 through October 31, 2019	—	—	—	42,117
November 1, 2019 through November 30, 2019	—	—	—	42,117
December 1, 2019 through December 31, 2019	—	—	—	42,117
Total	—	—	—	42,117

- (1) Transactions are reported as of settlement dates.
- (2) QNB's current stock repurchase plan was approved by its Board of Directors and announced on January 24, 2008 and subsequently increased on February 9, 2009.
- (3) The total number of shares approved for repurchase under QNB's current stock repurchase plan is 100,000 as of the filing of this Form 10-K.
- (4) QNB's current stock repurchase plan has no expiration date.
- (5) QNB has no stock repurchase plan that it has determined to terminate or under which it does not intend to make further purchases.

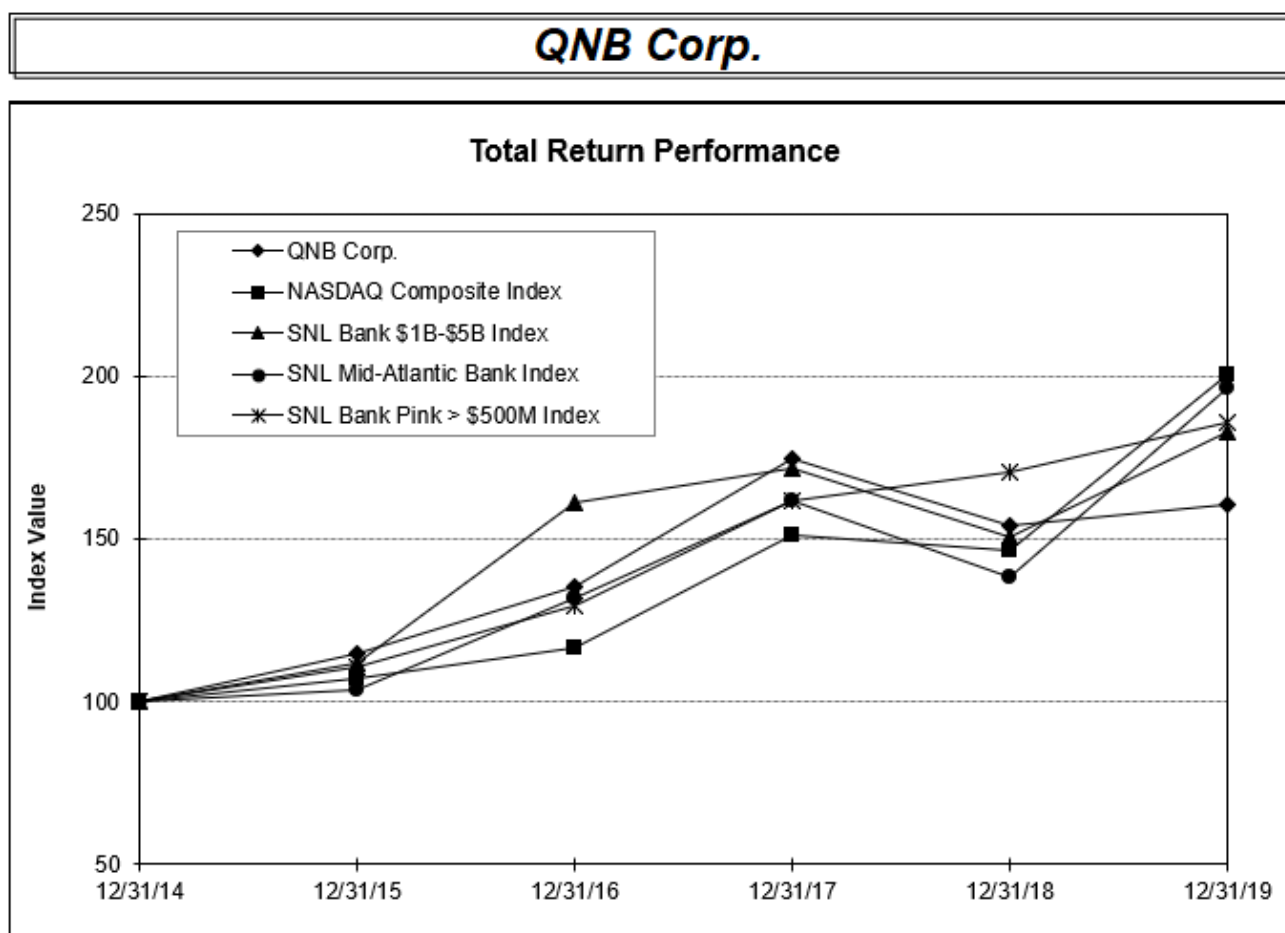


## Stock Performance Graph

Set forth below is a performance graph comparing the yearly cumulative total shareholder return on QNB's common stock with:

- the yearly cumulative total shareholder return on stocks included in the NASDAQ Market Index, a broad market index;
- the yearly cumulative total shareholder return on the SNL \$1B to \$5B Bank Index, a group encompassing publicly traded banking companies trading on the NYSE, AMEX, or NASDAQ with assets between \$1B and \$1.5B;
- the yearly cumulative total shareholder return on the SNL Mid-Atlantic Bank Index, a group encompassing publicly traded banking companies trading on the NYSE, AMEX, or NASDAQ headquartered in Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania, and Puerto Rico; and
- the yearly cumulative total shareholder return on the SNL Bank Pink Index >\$500M, a group of publicly traded banking companies with assets greater than \$500 million trading on over-the-counter bulletin board.

All of these cumulative total returns are computed assuming the reinvestment of dividends at the frequency with which dividends were paid during the applicable years.



Index	Period Ending					
	12/31/14	12/31/15	12/31/16	12/31/17	12/31/18	12/31/19
QNB Corp.	100.00	114.86	135.36	174.39	154.33	160.47
NASDAQ Composite Index	100.00	106.96	116.45	150.96	146.67	200.49
SNL Bank \$1B-\$5B Index	100.00	111.94	161.04	171.69	150.42	182.85
SNL Mid-Atlantic Bank Index	100.00	103.75	131.87	161.62	138.10	196.39
SNL Bank Pink > \$500M Index	100.00	110.94	129.35	161.56	170.41	185.66

Source: S&P Global Markets Intelligence © 2020

**ITEM 6. SELECTED FINANCIAL DATA** (in thousands, except share and per share data)

Year ended December 31,	2019	2018	2017	2016	2015
<b>Income and expense</b>					
Interest income	\$ 46,418	\$ 43,200	\$ 38,102	\$ 33,237	\$ 31,875
Interest expense	10,124	8,185	5,680	4,733	4,506
Net interest income	36,294	35,015	32,422	28,504	27,369
Provision for loan losses	1,300	1,130	1,400	30	200
Non-interest income	8,317	4,892	6,887	5,667	6,032
Non-interest expense	28,104	25,885	23,720	22,163	22,398
Income before income taxes	15,207	12,892	14,189	11,978	10,803
Provision for income taxes	2,850	1,557	5,900	3,054	2,570
Net income	\$ 12,357	\$ 11,335	\$ 8,289	\$ 8,924	\$ 8,233
<b>Share and Per Share Data</b>					
Net income - basic	\$ 3.53	\$ 3.27	\$ 2.42	\$ 2.64	\$ 2.47
Net income - diluted	3.53	3.25	2.41	2.63	2.46
Book value	34.30	29.95	28.59	27.43	26.92
Cash dividends	1.32	1.28	1.24	1.20	1.16
Average common shares outstanding - basic	3,498,326	3,463,450	3,428,970	3,386,766	3,337,505
Average common shares outstanding - diluted	3,504,150	3,482,509	3,445,811	3,395,839	3,350,539
<b>Balance Sheet at Year-end</b>					
<b>Investment securities</b>					
Trading	\$ —	\$ —	\$ —	\$ 3,596	\$ 4,189
Available-for-sale debt	349,710	344,221	374,570	381,972	354,681
Held-to-maturity debt	—	—	—	—	147
Equity	9,164	9,421	4,975	8,503	7,234
Restricted investment in bank stocks	1,073	797	1,501	1,017	508
Loans held-for-sale	977	—	—	789	987
Loans receivable	820,616	785,448	733,283	633,079	615,270
Allowance for loan losses	(9,887)	(8,834)	(7,841)	(7,394)	(7,554)
Other earning assets	5,210	570	5,538	1,824	7,832
Total assets	1,225,023	1,175,452	1,152,337	1,063,141	1,020,936
Deposits	1,037,860	1,015,598	993,948	913,355	889,786
Borrowed funds	55,931	50,872	55,756	52,660	37,163
Shareholders' equity	120,717	104,348	98,570	93,567	90,443
<b>Selected Financial Ratios</b>					
Net interest margin	3.16%	3.13%	3.14%	3.03%	3.05%
Net income as a percentage of:					
Average total assets	1.02	0.96	0.74	0.87	0.83
Average shareholders' equity	10.58	10.47	8.17	9.45	9.29
Average shareholders' equity to average total assets	9.63	9.20	9.09	9.16	8.97
Dividend payout ratio	37.39	39.12	51.31	45.56	47.03

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

### Results of Operations – Overview

QNB Corp. (“QNB” or the “Company”) earns its net income primarily through its subsidiary, QNB Bank (the “Bank”). Net interest income, or the spread between the interest, dividends and fees earned on loans and investment securities and the expense incurred on deposits and other interest-bearing liabilities, is the primary source of operating income for QNB. QNB seeks to achieve sustainable and consistent earnings growth while maintaining adequate levels of capital and liquidity and limiting its exposure to credit and interest rate risk levels approved by the Board of Directors. Due to its limited geographic area, comprised principally of Bucks, Lehigh and Montgomery counties, growth is pursued through expansion of existing customer relationships and building new relationships by stressing a consistent high level of service at all points of contact.

Tabular information presented throughout management’s discussion and analysis, other than share and per share data, is presented in thousands of dollars.

Net income for the year ended December 31, 2019 was \$12,357,000, or \$3.53 per share on a diluted basis. This compares to 2018 net income of \$11,335,000, or \$3.25 per share on a diluted basis and 2017 net income of \$8,289,000, or \$2.41 per share on a diluted basis. Two important measures of profitability in the banking industry are an institution’s return on average assets and return on average shareholders’ equity. Return on average assets was 1.02%, 0.96% and 0.74% in 2019, 2018, and 2017, respectively, and return on average shareholders’ equity was 10.58%, 10.47% and 8.17%, respectively, during those same periods.

### 2019 versus 2018

The results for 2019 include the following significant components:

- Net interest income increased \$1,279,000, or 3.7%, to \$36,294,000 for 2019.
- The net interest margin on a tax-equivalent basis increased three basis points to 3.16% for 2019 from 3.13% for 2018.
- Provision for loan losses totaled \$1,300,000 for 2019, compared with \$1,130,000 for 2018.
- Non-interest income for 2019 was \$8,317,000, an increase of \$3,425,000, or 70.0%, compared with 2018. Non-interest expense for 2019 was \$28,104,000, an increase of \$2,219,000, or 8.6%, compared with 2018.
- Provision for income taxes increased \$1,293,000. The 2018 provision for income taxes included a \$415,000 benefit resulting from method changes to the bad debt conformity election and for deferred loan origination costs on the 2017 returns, realizing the benefit at the higher Federal corporate tax of 34%.
- Loans receivable grew \$35,168,000, or 4.5%, from December 31, 2018. Deposits increased \$22,262,000, or 2.2%, from December 31, 2018.
- Total non-performing loans, which represent loans on non-accrual status, loans past due 90 days or more and still accruing interest, and restructured loans, were \$16,464,000, or 2.01% of total loans at December 31, 2019, compared with \$9,638,000, or 1.23% of total loans at December 31, 2018. Loans on non-accrual status were \$11,704,000 at December 31, 2019 compared with \$7,478,000 at December 31, 2018. Net charge-offs for 2019 were \$247,000, or 0.03% of average total loans, as compared with \$137,000, or 0.02% of average total loans for 2018.

### 2018 versus 2017

The results for 2018 include the following significant components:

- Net interest income increased \$2,593,000, or 8.0%, to \$35,015,000 for 2018.
- The net interest margin on a tax-equivalent basis decreased one basis points to 3.13% for 2018 from 3.14% for 2017.
- Provision for loan losses totaled \$1,130,000 for 2018, compared with \$1,400,000 for 2017.
- Non-interest income for 2018 was \$4,892,000, a decrease of \$1,995,000, or 29.0%, compared with 2017. Non-interest expense for 2018 was \$25,885,000, an increase of \$2,165,000, or 9.1%, compared with 2017.
- Provision for income taxes for 2018 included a \$415,000 benefit resulting from method changes to the bad debt conformity election and for deferred loan origination costs on the 2017 returns, realizing the benefit at the higher Federal corporate tax of 34%.
- Loans receivable grew \$52,165,000, or 7.1%, from December 31, 2017. Deposits increased \$21,650,000, or 2.2%, from December 31, 2017.

- Total non-performing loans, which represent loans on non-accrual status, loans past due 90 days or more and still accruing interest, and restructured loans, were \$9,638,000, or 1.23% of total loans at December 31, 2018, compared with \$9,242,000, or 1.26% of total loans at December 31, 2017. Loans on non-accrual status were \$7,478,000 at December 31, 2018 compared with \$7,921,000 at December 31, 2017. Net charge-offs for 2018 were \$137,000, or 0.02% of average total loans, as compared with \$953,000, or 0.14% of average total loans for 2017.

These items, as well as others, will be explained more thoroughly in the next sections.

## Net Interest Income

The following table presents the adjustment to convert net interest income to net interest income on a fully taxable equivalent basis for the years ended December 31, 2019, 2018, and 2017.

Year ended December 31,	2019	2018	2017
Total interest income	\$ 46,418	\$ 43,200	\$ 38,102
Total interest expense	10,124	8,185	5,680
Net interest income	36,294	35,015	32,422
Tax-equivalent adjustment	780	818	1,582
Net interest income (tax-equivalent basis)	<u>\$ 37,074</u>	<u>\$ 35,833</u>	<u>\$ 34,004</u>

Net interest income is the primary source of operating income for QNB. Net interest income is interest income, dividends, and fees on earning assets, less interest expense incurred for funding sources. Earning assets primarily include loans, investment securities and interest-bearing balances at the Federal Reserve Bank (Fed). Sources used to fund these assets include deposits and borrowed funds. Net interest income is affected by changes in interest rates, the volume and mix of earning assets and interest-bearing liabilities, and the amount of earning assets funded by non-interest-bearing deposits.

For purposes of this discussion, interest income and the average yield earned on loans and investment securities are adjusted to a tax-equivalent basis as detailed in the table that appears above. This adjustment to interest income is made for analysis purposes only. Interest income is increased by the amount of savings of Federal income taxes, which QNB realizes by investing in certain tax-exempt state and municipal securities and by making loans to certain tax-exempt organizations. In this way, the ultimate economic impact of earnings from various assets can be more easily compared.

The net interest rate spread is the difference between average rates received on earning assets and average rates paid on interest-bearing liabilities, while the net interest margin, which includes interest-free sources of funds, is net interest income expressed as a percentage of average interest-earning assets. The Asset/Liability and Investment Management Committee works to manage and maximize the net interest margin for the Company.

### 2019 versus 2018

On a tax-equivalent basis, net interest income for 2019 increased \$1,241,000, or 3.5%, to \$37,074,000. The net interest margin, which increased three basis points to 3.16% was favorably impacted by increased rates on loans. The average rate earned on earning assets increased 17 basis points from 3.85% for 2018 to 4.02% for 2019 with the yield on loans increasing 16 basis points, favorably impacted by a \$32,443,000 increase in average commercial real estate loans and an 16 basis point increase in the related yield, a \$5,290,000 increase in average residential real estate loans and a 12 basis point increase in yield, and a \$2,447,000 increase in average commercial and industrial loans and a 15 basis point increase in the related yield. The yield on investment securities declined slightly to 2.39%. In comparison, the interest rate paid on total average interest-bearing liabilities increased 19 basis points from 0.88% for 2018 to 1.07% for 2019 with the average rate paid on interest-bearing deposits increasing from 0.86% to 1.06% for the same time periods, respectively, and a \$15,780,000 increase in average interest-bearing deposits.

Market disruption caused by local bank consolidation positively impacted both loan and deposit growth which was partially offset by the competitive local interest rate market for quality loans and deposits. Net interest spread decreased two basis points to 2.95% for 2019 compared to 2.97% for 2018. Average earning assets increased by \$31,113,000, or 2.7%, to \$1,174,619,000 for 2019, with average loans increasing \$44,782,000, or 5.8%, to \$811,526,000. With the growth in earning assets occurring in the loan portfolio, the mix of earning assets changed, which also contributed to relative stability of the net interest margin, as investment securities generally earn a lower yield than loans. The growth in earning assets was funded by a \$27,219,000, or 2.7%, increase in average total deposits to \$1,030,373,000, and proceeds from the decrease in average investments of \$13,197,000, or 3.5%.

### 2018 versus 2017

On a tax-equivalent basis, net interest income for 2018 increased \$1,829,000, or 5.4%, to \$35,833,000. The net interest margin, which decreased slightly to 3.13% was unfavorably impacted by increased rates on deposits and borrowings and less favorable tax-equivalent yields on tax-exempt municipal investments and loans as the Federal tax rate decreased from 34% to 21%. The average rate earned on earning assets increased 18 basis points from 3.67% for 2017 to 3.85% for 2018 with the yield on loans increasing 16 basis points,

favorably impacted by a \$38,565,000 increase in average commercial real estate loans and an 11 basis point increase in the related yield and a \$26,117,000 increase in average commercial and industrial loans and a 46 basis point increase in the related yield, while the yield on investment securities declined slightly to 2.32%. In comparison, the interest rate paid on total average interest-bearing liabilities increased 24 basis points from 0.64% for 2017 to 0.88% for 2018 with the average rate paid on interest-bearing deposits increasing from 0.65% to 0.86% for the same time periods, respectively, and a \$31,842,000 increase in average interest-bearing deposits.

On December 22, 2017, the Tax Cuts and Jobs Act (the “2017 Tax Reform Act”) was signed into law, reducing the Federal corporate income tax rate from 34% to 21% effective January 1, 2018. This reduction in the tax rate had an impact on the tax-equivalent yield on certain interest-earning assets. Had the 2017 Tax Reform Act been in effect in 2017, the impact would have resulted in a reduction to the 2017 interest margin of approximately seven basis points.

## Average Balances, Rates, and Interest Income and Expense Summary (Tax-Equivalent Basis)

	2019			2018			2017		
	Average balance	Average rate	Interest	Average balance	Average rate	Interest	Average balance	Average rate	Interest
<b>Assets</b>									
Trading securities	\$ —	0.00%	\$ —	\$ —	0.00%	\$ —	\$ 1,187	5.73%	\$ 68
Investment securities (AFS & Equities)									
U.S. Treasury	2,185	2.08	46	—	0.00	—	—	0.00	—
U.S. Government agencies	69,742	1.81	1,261	72,255	1.79	1,295	74,143	1.78	1,319
State and municipal	54,632	3.54	1,936	71,048	3.29	2,335	75,906	3.91	2,966
Mortgage-backed and CMOs	216,638	2.18	4,715	213,356	2.14	4,565	223,715	2.05	4,583
Pooled trust preferred	105	4.80	4	150	4.35	6	1,548	1.45	22
Corporate debt	8,018	3.74	300	6,258	2.39	150	8,062	2.01	162
Equities	8,286	3.31	274	9,736	3.08	300	7,128	3.49	249
Total investment securities (AFS & Equities)	359,606	2.37	8,536	372,803	2.32	8,651	390,502	2.38	9,301
Loans:									
Commercial real estate	464,512	4.82	22,393	432,069	4.66	20,135	393,504	4.55	17,909
Residential real estate	67,602	3.98	2,688	62,312	3.86	2,402	51,242	3.89	1,996
Home equity loans	67,638	4.67	3,158	67,376	4.44	2,989	66,578	3.86	2,567
Commercial and industrial	157,405	5.25	8,269	154,958	5.10	7,901	128,841	4.64	5,984
Consumer loans	6,800	6.01	409	7,017	5.99	420	6,575	5.39	355
Tax-exempt loans	47,569	3.38	1,609	43,012	3.22	1,384	35,742	3.95	1,410
Total loans, net of unearned income*	811,526	4.75	38,526	766,744	4.59	35,231	682,482	4.43	30,221
Other earning assets	3,487	3.90	136	3,959	3.45	136	8,265	1.13	94
Total earning assets	1,174,619	4.02	47,198	1,143,506	3.85	44,018	1,082,436	3.67	39,684
Cash and due from banks	13,275			12,557			13,366		
Allowance for loan losses	(9,216)			(8,287)			(7,858)		
Other assets	33,362			29,134			29,219		
Total assets	<u>\$1,212,040</u>			<u>\$1,176,910</u>			<u>\$1,117,163</u>		
<b>Liabilities and Shareholders' Equity</b>									
Interest-bearing deposits:									
Interest-bearing demand	\$ 212,415	0.47%	\$ 990	\$ 194,372	0.35%	\$ 689	\$ 169,940	0.21%	\$ 353
Municipals	112,539	1.80	2,023	106,411	1.44	1,537	110,052	0.71	784
Money market	90,150	0.90	815	77,713	0.42	329	84,203	0.30	249
Savings	242,859	0.66	1,605	266,946	0.62	1,657	249,894	0.46	1,156
Time	120,980	1.58	1,908	121,021	1.30	1,578	128,603	1.18	1,512
Time of \$100,000 or more	109,358	1.90	2,083	106,058	1.62	1,723	97,987	1.40	1,373
Total interest-bearing deposits	888,301	1.06	9,424	872,521	0.86	7,513	840,679	0.65	5,427
Short-term borrowings	56,980	1.23	700	60,939	1.10	672	48,672	0.52	253
Total interest-bearing liabilities	945,281	1.07	10,124	933,460	0.88	8,185	889,351	0.64	5,680
Non-interest-bearing deposits	142,072			130,633			121,819		
Other liabilities	7,916			4,576			4,497		
Shareholders' equity	116,771			108,241			101,496		
Total liabilities and shareholders' equity	<u>\$1,212,040</u>			<u>\$1,176,910</u>			<u>\$1,117,163</u>		
Net interest rate spread		2.95%			2.97%			3.03%	
Margin/net interest income		<u>3.16%</u>	<u>\$37,074</u>		<u>3.13%</u>	<u>\$35,833</u>		<u>3.14%</u>	<u>\$34,004</u>

Tax-exempt securities and loans were adjusted to a tax-equivalent basis and are based on the marginal Federal corporate tax rate of 21 percent for 2019 and 2018 and 34 percent for 2017. Non-accrual loans and investment securities are included in earning assets.

\* Includes loans held-for-sale

## Rate-Volume Analysis of Changes in Net Interest Income (1) (2) (3)

	2019 vs. 2018			2018 vs. 2017		
	Due to change in:		Total	Due to change in:		Total
	Volume	Rate	Change	Volume	Rate	Change
<b>Interest income:</b>						
Trading securities	\$ —	\$ —	\$ —	\$ (68)	\$ —	\$ (68)
Investment securities (AFS & Equities):						
U.S. Treasury	1	45	46	-	-	-
U.S. Government agencies	(46)	12	(34)	(33)	9	(24)
State and municipal	(539)	140	(399)	(190)	(441)	(631)
Mortgage-backed and CMOs	70	80	150	(212)	194	(18)
Pooled trust preferred	(2)	—	(2)	(20)	4	(16)
Corporate debt	42	108	150	(36)	24	(12)
Equities	(45)	19	(26)	91	(40)	51
Total investment securities (AFS & Equities)	(519)	404	(115)	(400)	(250)	(650)
Loans:						
Commercial real estate	1,512	746	2,258	1,755	471	2,226
Residential real estate	204	82	286	431	(25)	406
Home equity loans	12	157	169	31	391	422
Commercial and industrial	124	244	368	1,214	703	1,917
Consumer loans	(12)	1	(11)	23	42	65
Tax-exempt loans	147	78	225	287	(313)	(26)
Total loans	1,987	1,308	3,295	3,741	1,269	5,010
Other earning assets	(16)	16	—	(50)	92	42
Total interest income	1,452	1,728	3,180	3,223	1,111	3,684
<b>Interest expense:</b>						
Interest-bearing demand	64	237	301	50	286	336
Municipals	88	398	486	(26)	779	753
Money market	52	434	486	(19)	99	80
Savings	(150)	98	(52)	79	422	501
Time	(1)	331	330	(89)	155	66
Time of \$100,000 or more	54	306	360	114	236	350
Total interest-bearing deposits	107	1,804	1,911	109	1,977	2,086
Short-term borrowings	(43)	71	28	64	355	419
Total interest expense	64	1,875	1,939	173	2,332	2,505
Net interest income	\$ 1,388	\$ (147)	\$ 1,241	\$ 3,050	\$ (1,221)	\$ 1,829

- (1) Loan fees have been included in the change in interest income totals presented. Non-accrual loans and investment securities have been included in average balances.
- (2) Changes due to both volume and rates have been allocated in proportion to the relationship of the dollar amount change in each.
- (3) Interest income on loans and securities is presented on a tax-equivalent basis.

The Rate-Volume Analysis tables, as presented on a tax-equivalent basis, highlight the impact of changing rates and volumes on interest income and interest expense. Total interest income on a tax-equivalent basis increased \$3,180,000 to \$47,198,000 for 2019, while total interest expense increased \$1,939,000 to \$10,124,000. Volume growth in earning assets contributed an additional \$1,452,000 of interest income and interest rate increases contributed to additional interest income of \$1,728,000. Rate-related interest expense increased \$1,875,000, while volume-related interest expense increased \$64,000.

## Investments

### 2019 versus 2018

Interest income on available-for-sale and equity investment securities decreased \$115,000 when comparing the two years. The decrease in average balances contributed to \$519,000 of the decrease, partially offset by \$404,000 due to the increase in rates. The average yield on the available-for-sale and equity investment portfolio increased slightly to 2.37% for 2019 compared to 2.32% for 2018. The decrease in the investment portfolio is due to funding needs to support loan growth.

Income on U.S. Government agency securities decreased \$34,000, due to a decrease in average balances totaling \$2,513,000, which was partially offset by an increase in the yield on the portfolio of two basis points from 1.79% for 2018 to 1.81% for 2019. Most of the bonds in the agency portfolio have call features ranging from three months to three years, many of which were not exercised during 2019 as a result of the rising rates during the year.

Interest income on tax-exempt municipal securities decreased \$399,000. Average balances, which decreased \$16,416,000, contributed \$539,000 to the interest income decline. The increase in yield of 25 basis points from 3.29% in 2018 to 3.54% in 2019 partially offset the decrease in interest income by \$140,000. Many of these bonds have either reached maturity or their call dates and are being replaced with municipal bonds with higher yields. Typically, QNB purchased municipal bonds with 10- to 15-year maturities with call dates between 2 and 5 years. Future demand for tax-exempt municipal securities is uncertain, as the tax-equivalent yield is less favorable compared to other securities with similar risk-based capital asset-weighting characteristics. This portfolio is expected to continue to decline as there are \$20,940,000 in municipal bonds with a 2019 tax-equivalent yield of 3.90% that are expected to be called or mature in 2020. The current yield on replacement bonds is below this threshold.

All the mortgage-backed and collateralized mortgage obligations (“CMO”) securities owned by QNB are issued by U.S. Government agencies and sponsored enterprises (“GSE”) and carry the implicit backing of the U.S. Government, but they are not direct obligations of the U.S. Government. Interest income on mortgage-backed securities and CMOs increased \$150,000 due to both an increase of \$3,282,000, or 1.5%, in average balances and an increase in yield of four basis points from 2.14% for 2018 to 2.18% for 2019. This portfolio generally provides higher yields relative to agency bonds and provides monthly cash flow which can be used for liquidity purposes or can be reinvested as interest rates increase.

Income on corporate debt securities increased \$150,000 due to an increase in average balances of \$1,760,000 and an increase in yield from 2.39% for 2018 to 3.74% for 2019.

### **2018 versus 2017**

Interest income on available-for-sale and equity investment securities decreased \$650,000 when comparing the two years. The decrease in average balances contributed to \$400,000 of the decrease, while rates contributed the remaining \$250,000 decrease. The average yield on the available-for-sale and equity investment portfolio declined slightly to 2.32% for 2018 compared to 2.38% for 2017. The decrease in the investment portfolio is due to funding needs to support loan growth.

Income on U.S. Government agency securities decreased \$24,000, due to a decrease in average balances totaling \$1,888,000, which was partially offset by an increase in the yield on the portfolio of one basis point from 1.78% for 2017 to 1.79% for 2018. Most of the bonds in the agency portfolio have call features ranging from three months to three years, many of which were not exercised during 2018 as a result of the rising rates during the year.

Interest income on tax-exempt municipal securities decreased \$631,000. The decline in yield of 62 basis points from 3.91% in 2017 to 3.29% in 2018 contributed to a \$441,000 reduction in interest income. Average balances, which decreased \$4,858,000, contributed \$190,000 to the interest income decline. Had the 2017 Tax Reform Act been in effect in 2017, the impact would have resulted in a reduction to the yield on municipal bonds of approximately 65 basis points to 3.26%.

Interest income on mortgage-backed securities and CMOs decreased \$18,000 primarily due to a decrease of \$10,359,000, or 4.6%, in average balances. The yield on the mortgage-backed and CMO portfolio improved by nine basis points from 2.05% for 2017 to 2.14% for 2018.

## **Loans**

### **2019 versus 2018**

The largest category of the loan portfolio is commercial real estate loans. This category of loans includes commercial purpose loans secured by either commercial properties such as office buildings, hotels, factories, warehouses, medical facilities and retail establishments, or residential real estate, usually the residence of the business owner or investment properties. The category also includes construction and land development loans. Income on commercial real estate loans increased \$2,258,000. The increase in average balances of \$32,443,000, or 7.5%, contributed an increase in interest income of \$1,512,000. The 16-basis point increase in yield, from 4.66% in 2018 to 4.82% in 2019 resulted in an increase of interest income of \$746,000.



Income on commercial and industrial loans, the second largest category, increased \$368,000 with the positive impact from an increase in yield and average balances. Average commercial and industrial loans increased \$2,447,000, or 1.6%, to \$157,405,000 for 2019, resulting in a \$124,000 increase in interest income. Average yield on these loans increased 15 basis points to 5.25% providing an additional \$244,000 in interest income. Many of the loans in this category are indexed to the prime interest rate, which decreased by one quarter of one percent three times since December 2018; but still remained 25 basis points higher than the prime rate at December 31, 2017.

Tax-exempt loan income increased \$225,000 from 2018. When comparing the same periods, average balances increased \$4,557,000 to \$47,569,000, which contributed a \$147,000 increase in interest income. The average yield on the tax-exempt loan portfolio increased from 3.22% for 2018 to 3.38% for 2019, resulting in an increase in interest income of \$78,000.

QNB strives to become the “local consumer lender of choice”, and to affect this goal, QNB has refocused its retail lending efforts by strengthening the management of the area, adding new product offerings and by increasing marketing and promotion. The positive impact of this renewed focus has been year-over-year growth in balances in two categories of retail lending: residential mortgage and home equity loans. Overall, interest income for retail lending increased \$444,000 in 2019 compared with 2018, driven by the increase in average balances and average rate increases on residential and home equity loans.

Given the low yields on alternative investment securities, QNB retained certain hybrid adjustable rate mortgages to borrowers with high credit scores and low loan-to-value ratios. As a result, average residential mortgage loans secured by first lien 1-4 family residential mortgages increased by \$5,290,000, or 8.5%, to \$67,602,000 for 2019. The average yield on the residential real estate portfolio increased 12 basis points to 3.98% for 2019 compared to 3.86% for 2018. Overall, interest income for this segment grew \$286,000 in 2019.

Income on home equity loans increased by \$169,000 when comparing 2019 and 2018. During 2019 and 2018, QNB offered attractive rates on both variable rate and fixed rate home equity loans, which contributed to an increase in average balances totaling \$262,000, or 0.4%, to \$67,638,000 when comparing 2019 and 2018. The yield on the home equity portfolio increased 23 basis points to 4.67% when comparing the two years. The demand for home equity loans has improved along with the recovery in home values. We expect that the demand for home equity loans will continue.

Interest income on consumer loans decreased \$11,000. Consumer loans at QNB experienced a decline in average balances in 2019, which decreased \$217,000, or 3.1%, led by a decline in student loans. Student loan balances are no longer insured, and QNB ceased funding originations through its third-party provider during the second half of 2018; average balances decreased \$362,000 and interest income decreased \$17,000 when comparing 2019 and 2018. This decrease was partially offset by an increase in consumer installment loans.

#### **2018 versus 2017**

Income on commercial real estate loans increased \$2,226,000. The increase in average balances of \$38,565,000, or 9.8%, contributed an increase in interest income of \$1,755,000. The 11-basis point increase in yield, from 4.55% in 2017 to 4.66% in 2018 resulted in an increase of interest income of \$471,000.

Income on commercial and industrial loans increased \$1,917,000 with the positive impact from an increase in yield and average balances. Average commercial and industrial loans increased \$26,117,000, or 20.3%, to \$154,958,000 for 2018, resulting in a \$1,214,000 increase in interest income. Average yield on these loans increased 46 basis points to 5.10% providing an additional \$703,000 in interest income.

Tax-exempt loan income decreased \$26,000 from 2017. When comparing the same periods, average balances increased \$7,270,000 to \$43,012,000, which contributed a \$287,000 increase in interest income. This increase was offset by a decrease in the average yield on the tax-exempt loan portfolio from 3.95% for 2017 to 3.22% for 2018, resulting in a decline in interest income of \$313,000. Had the 2017 Tax Reform Act been in effect in 2017, the impact would have resulted in a reduction to the yield on municipal bonds of approximately 66 basis points to 3.29%.

Interest income for retail lending increased \$893,000 in 2018 compared with 2017, driven by the increase in average balances and average rate increases on home equity and consumer loans. 2017 tax reform legislation changed the tax deductibility of home equity interest for borrowers.

Income on home equity loans increased by \$422,000 when comparing 2018 and 2017. Average balances increased \$798,000, or 1.2%, to \$67,376,000 when comparing 2018 and 2017. The yield on the home equity portfolio increased 58 basis points to 4.44% when comparing the two years, primarily due to prime rate increases.

Average residential mortgage loans secured by first lien 1-4 family residential mortgages increased by \$11,070,000, or 21.6%, to \$62,312,000 for 2018. The average yield on the residential real estate portfolio remained fairly level at 3.86% for 2018 compared to 3.89% for 2017. Overall, interest income for this segment grew \$406,000 in 2018.

Interest income on consumer loans increased \$65,000. Average balances in this segment increased \$442,000. This growth in volume contributed \$23,000 to the increase in income, and the 60-basis point increase in the average yield from 5.39% in 2017 to 5.99% in 2018 contributed to an increase in interest income of \$42,000.

## **Deposits and Borrowings**

### **2019 versus 2018**

Earning assets are funded primarily by deposits, which increased on average by \$27,219,000, or 2.7%, to \$1,030,373,000, when comparing 2019 and 2018. Total interest expense for 2019 was \$10,124,000 compared with \$8,185,000 for 2018, an increase of \$1,939,000. Interest expense on total deposits increased \$1,911,000 and interest expense on borrowed funds increased \$28,000 when comparing the two years. The rate paid on interest-bearing deposits increased 20 basis points; the rate paid on borrowings increased 13 basis points, when comparing the two periods. Deposit and borrowing costs are expected to increase as the competition for deposits increases.

Consistent with the past several years, the growth in deposits during 2019 was centered in accounts with greater liquidity. Average non-interest-bearing demand accounts increased \$11,439,000, or 8.8%, to \$142,072,000 for 2019; QNB has been successful in increasing both personal and business checking accounts. Average interest-bearing demand accounts increased \$18,043,000, or 9.3%, to \$212,415,000 for 2019 compared with 2018, with interest expense on interest-bearing demand accounts increasing \$301,000 to \$990,000 for 2019. The average rate paid increased 12 basis points to 0.47% for 2019 compared to 0.35% for 2018. Interest-bearing business checking account average balances increased by \$10,206,000, or 30.2%, and related interest expense increased \$245,000, or 35 basis points in yield, when comparing the two years. This was primarily due to one large commercial customer consolidating both existing and external accounts. Also included in this category is QNB-Rewards checking, a tiered-rate checking account product. In order to receive the high rate a customer must receive an electronic statement, have one direct deposit or other ACH transaction and have at least 12 debit card purchase transactions post and clear per statement cycle. If these qualifications are not met, the rate paid for 2019 was 0.25%. For 2019, the average balance in this product was \$59,490,000 and the related interest expense was \$392,000 for an average cost of funds of 0.66%. In comparison, the average balance of the QNB-Rewards accounts for 2018 was \$54,188,000, yielding 0.62%. The rates paid on the QNB-Rewards product, assuming qualifications are met, is attractive relative to competitors' offerings as well as other QNB products. This product also generates fee income through the use of the debit card. The average balance of other interest-bearing demand accounts included in this category increased from \$106,337,000 for 2018 to \$108,872,000 for 2019. The average rate paid on these balances was 0.05% for both years.

Average money market accounts increased \$12,437,000, or 16.0%, to \$90,150,000 for 2019 compared with 2018. The increase in money market balances is a result of a shift in balances to from less liquid and lower yielding savings accounts. Interest expense on money market accounts increased \$486,000 to \$815,000 for 2019 compared with 2018. The average interest rate paid on money market accounts was 0.90% for 2019, an increase of 48 basis points compared with 2018. The balances in this category primarily comprise Select money market accounts, a product that pays a tiered rate based on account balances. The balances remaining in these accounts for 2019 were primarily at higher-yielding tiers.

Interest expense on municipal interest-bearing demand accounts increased \$486,000 to \$2,023,000 for 2019. The average balance of municipal interest-bearing demand accounts increased \$6,128,000, or 5.8%, to \$112,539,000 and the average interest rate paid on these accounts increased 36 basis points to 1.80% for 2019 from 1.44% for 2018. Most of these accounts are indexed to the Federal funds rate with negotiated rate floors between 0.25% and 0.50%. Many of these deposits are seasonal in nature and are received during the third quarter as tax receipts are collected and are withdrawn over the course of the next year.

QNB's online e-Savings product is the largest category of savings deposits and was created to compete with other online savings accounts. Average balances declined \$23,131,000, or 11.8%, to \$172,127,000 in 2019 compared with 195,258,000 in 2018, resulting from a shift to more liquid deposit accounts. The average cost of funds on these accounts was 0.86% for 2019 and 0.79% for 2018. The yield on this account may rise along with market rates and as competition for savings balances increases. Traditional statement savings accounts and club accounts are also included in the savings category and decreased on average by \$956,000, or 1.3%, to

\$70,732,000. The average rate paid on total savings accounts was 0.66% for 2019, a four-basis point increase from 2018 while interest expense decreased \$52,000, to \$1,605,000 from \$1,657,000 over the same period

Interest expense on time deposits increased \$690,000, to \$3,991,000 in 2019, due to a 28-basis point increase in yield, from 1.45% in 2018 to 1.73% in 2019. The increase in average balances was \$3,259,000 in 2019, to \$230,338,000. Similar to fixed-rate loans and investment securities, time deposits reprice over time and, therefore, have less of an immediate impact on costs in either a rising or falling rate environment. However, the maturity and repricing characteristics of time deposits tend to be shorter.

Approximately \$140,955,000, or 59.8%, in time deposits will reprice or mature over the next 12 months compared with 35.3% of the portfolio at December 31, 2018. The average rate paid on these time deposits is approximately 1.76%. QNB has extended the maturity of the time deposit portfolio by offering attractive rates at terms greater than 12 months. Interest expense is expected to increase along with competition for deposits.

Short-term borrowings are comprised of sweep accounts structured as repurchase agreements with our commercial customers and overnight borrowings from correspondent banks with average balances in 2019 of \$40,219,000 and \$16,761,000, respectively. Interest expense on short-term borrowings increased by \$28,000 to \$700,000 when comparing the two years. During this period average balances of repurchase agreements increased \$2,047,000 with a 15-basis point increase in average rate paid, resulting in an increase of cost of funds of \$73,000. This was partly offset by a decrease in average balances of borrowings from correspondent banks of \$6,006,000 while the average rate paid increased 46 basis points, resulting in a net decrease in cost of funds of \$45,000.

### **2018 versus 2017**

Total interest expense for 2018 was \$8,185,000 compared with \$5,680,000 for 2017, an increase of \$2,505,000. Interest expense on total deposits increased \$2,086,000 and interest expense on borrowed funds increased \$419,000 when comparing the two years. The rate paid on interest-bearing deposits increased 21 basis points; the rate paid on borrowings increased 58 basis points, when comparing the two periods. Deposit and borrowing costs are expected to increase as the competition for deposits increases.

Average non-interest-bearing demand accounts increased \$8,814,000, or 7.2%, to \$130,633,000 for 2018. Average interest-bearing demand accounts increased \$24,432,000, or 14.4%, to \$194,372,000 for 2018 compared with 2017, with interest expense on interest-bearing demand accounts increasing \$336,000 to \$689,000 for 2018. The average rate paid increased 14 basis points to 0.35% for 2018 compared to 0.21% for 2017. Interest-bearing business checking account average balances increased by \$14,265,000, or 72.8%, and related interest expense increased \$276,000, or 77 basis points in yield, when comparing the two years. This was primarily due to one large commercial customer consolidating both existing and external accounts. For 2018, the average balance in this QNB-Rewards checking was \$54,188,000 and the related interest expense was \$338,000 for an average cost of funds of 0.62%. In comparison, the average balance of the QNB-Rewards accounts for 2017 was \$50,907,000, yielding 0.55%. The average balance of other interest-bearing demand accounts included in this category increased from \$99,451,000 for 2017 to \$106,337,000 for 2018. The average rate paid on these balances was 0.05% for both years.

Interest expense on municipal interest-bearing demand accounts increased \$753,000 to \$1,537,000 for 2018. The average balance of municipal interest-bearing demand accounts decreased \$3,641,000, or 3.3%, to \$106,411,000 while the average interest rate paid on these accounts increased 73 basis points to 1.44% for 2018 from 0.71% for 2017.

Online eSavings average balances grew \$13,395,000, or 7.4%, to \$195,258,000 in 2018 compared with \$181,863,000 in 2017. The rate on this product increased from 0.65% at the end of 2017 to 0.85% in December 2018. The average cost of funds on these accounts was 0.58% for 2017 and 0.79% for 2018. Traditional statement savings accounts and club accounts are also included in the savings category and increased on average by \$3,657,000, or 5.4%, to \$71,688,000. The average rate paid on total savings accounts was 0.62% for 2018, a 16-basis point increase from 2017 while interest expense increased \$501,000, from \$1,156,000 to \$1,657,000 over the same period.

Interest expense on time deposits increased \$416,000, to \$3,301,000 in 2018, due to a 22-basis point increase in yield, from 1.27% in 2017 to 1.45% in 2018. The increase in average balances was \$489,000 in 2018, to \$227,079,000.

Short-term borrowings are comprised of sweep accounts structured as repurchase agreements with our commercial customers and overnight borrowings from correspondent banks with average balances in 2018 of \$38,172,000 and \$22,767,000, respectively. Interest expense on short-term borrowings increased by \$419,000 to \$672,000 when comparing the two years. During this period average balances of borrowings from correspondent banks increased \$13,396,000.

## Provision for Loan Losses

The provision for loan losses represents management's determination of the amount necessary to be charged to operations to bring the allowance for loan losses to a level that represents management's best estimate of the known and inherent losses in the existing loan portfolio. QNB recorded a provision for loan losses of \$1,300,000, \$1,130,000 and \$1,400,000 for the twelve-month periods ended December 31, 2019, 2018 and 2017, respectively. Net loan charge-offs were \$247,000, or 0.03% of total average loans for 2019 compared with \$137,000, or 0.02% of total average loans in 2018 and \$953,000, or 0.14% of total average loans in 2017. The majority of the commercial loans charged off during 2019 and 2018 had specific reserves established during the allowance for loan loss calculation process prior to the decision to charge-off the loans. Deterioration in credit quality or significant growth in the loan portfolio may result in a higher provision for loan losses in 2020.

## Non-Interest Income

### Non-interest income comparison

Year ended December 31,	2019	2018	2017	Change from prior year			
				\$ Change		% Change	
				2019 to 2018	2018 to 2017	2019 to 2018	2018 to 2017
Fees for services to customers	\$ 1,691	\$ 1,699	\$ 1,668	\$ (8)	\$ 31	-0.5%	1.9%
ATM and debit card	2,070	1,895	1,749	175	146	9.2	8.3
Retail brokerage and advisory	560	370	436	190	(66)	51.4	-15.1
Bank-owned life insurance	292	291	345	1	(54)	0.3	-15.7
Merchant	348	326	345	22	(19)	6.7	-5.5
Net gain on trading activities	—	—	27	—	(27)	—	—
Net gain (loss) on sale of investment securities	1,755	(76)	1,500	1,831	(1,576)	N/M	N/M
Unrealized gain (loss) on investment equity securities	770	(336)	—	1,106	(336)	N/M	—
Net gain on sale of loans	195	105	375	90	(270)	85.7	-72.0
Other	636	618	442	18	176	2.9	39.8
<b>Total</b>	<b>\$ 8,317</b>	<b>\$ 4,892</b>	<b>\$ 6,887</b>	<b>\$ 3,425</b>	<b>\$ (1,995)</b>	<b>70.0%</b>	<b>-29.0%</b>

N/M - Not Meaningful

### 2019 versus 2018

QNB, through its core banking business, generates various fees and service charges. Total non-interest income includes service charges on deposit accounts, ATM and debit card income, retail brokerage and advisory income, income on bank-owned life insurance, merchant income and gains and losses on investment securities and residential mortgage loans. Total non-interest income was \$8,317,000 in 2019 compared with \$4,892,000 in 2018, an increase of \$3,425,000.

Fees for services to customers are primarily comprised of service charges on deposit accounts. These fees were \$1,691,000 for 2019, a decrease of \$8,000, or 0.5%, from 2018. Overdraft income, which represented approximately 77% and 79% of total fees for services to customers in 2019 and 2018, respectively, decreased by \$16,000, or 1.2%, when comparing 2019 to 2018. The decrease in overdraft income primarily reflects a decrease in the number of overdraft occurrences.

ATM and debit card income is primarily comprised of transaction income on debit cards and ATM cards and ATM surcharge income for the use of QNB's ATM machines by non-QNB customers. ATM and debit card income was \$2,070,000 in 2019, an increase of \$175,000, or 9.2%, from the amount recorded in 2018. Debit card interchange income increased \$173,000, or 9.4%, to \$2,014,000 in 2019, while ATM surcharge income and monthly card fees income increased \$2,000 to \$56,000. The growth in checking accounts and card usage contributed to the increase in debit card income, including the QNB Rewards checking product, a tiered-rate checking account which requires, among other terms, the posting of a minimum of twelve debit card purchase transactions per statement cycle to receive the high interest rate.

QNB provides securities and advisory services under the name QNB Financial Services through an independent third-party registered Broker/Dealer and Registered Investment Advisor. QNB terminated its contract with its third-party broker-dealer effective August 1, 2018 and entered into a similar arrangement with another third-party provider. QNB Financial Services finalized the transferring of accounts to the new provider's platform during 2019. QNB receives a percentage of the revenue generated but is responsible for salaries and expenses of advisors who are QNB employees. Retail brokerage and advisory revenue was \$560,000 for 2019 compared with \$370,000 in 2018, an increase of \$190,000, or 51.4%. In 2018 and throughout 2019, there was a transition to move toward advanced advisory fees based on assets under management in lieu of fees per transaction; advisory fees increased \$175,000 comparing 2019 to 2018. Sales in front-loaded products, such as annuities and alternative investments (which include private equity, hedge funds, managed futures, real estate "REITs", commodities and derivatives contracts) and trailing income related to these increased \$15,000 in 2019 over 2018. In 2019, the net income provided by QNB Financial Services was \$82,000, compared with \$22,000 in net income for 2018.

Income on bank-owned life insurance ("BOLI") represents the earnings and death benefits on life insurance policies in which the Bank is the beneficiary. The insurance carriers reset the rates on these policies annually taking into consideration the interest rate environment as well as mortality costs. The existing policies have rate floors which minimize how low the earnings rate can go. Some of these policies are currently at their floor. Income on these policies during 2019 was \$292,000 compared to \$291,000 for 2018.

Merchant income represents fees charged to merchants for the Bank's handling of credit card or charge sales. Merchant income was \$348,000 for 2019, an increase of \$22,000, or 6.7%, from the amount reported in 2018. The increase in merchant income is primarily a result of increased usage.

The fixed-income securities portfolio represents a significant portion of QNB's earning assets and is also a primary tool in liquidity and asset/liability management. QNB actively manages its fixed-income portfolio to take advantage of changes in the shape of the yield curve, changes in spread relationships in different sectors, and for liquidity purposes. Management continually reviews strategies that will result in an increase in the yield or improvement in the structure of the investment portfolio, including monitoring credit and concentration risk in the portfolio. In addition, the Corporation owns a small portfolio of equity securities for the purpose of generating both dividend income and capital appreciation.

Net gains on investment securities increased \$1,831,000 to a net gain of \$1,755,000 for the year ended December 31, 2019, compared with a net loss of \$76,000 for the year ended December 31, 2018, primarily due to market conditions which resulted in greater opportunities for profitable sales in 2019 compared with 2018. Gains from equity securities were \$1,781,000 in 2019 compared to losses of \$79,000 in 2018. Strong performance in the U.S. equity markets during 2019, enabled QNB to sell some equity holdings and recognize gains. Net losses on the sale of fixed income securities were \$26,000 for 2019 compared to net gains of \$3,000 for 2018. The adoption of Accounting Standard Update 2016-01 (ASU 2016-01) effective January 1, 2018 requires the Company to record unrealized gains or losses on equity securities through earnings, rather than in other comprehensive income (loss), a component of shareholders' equity. Unrealized gains on equity securities of \$770,000 were recorded during 2019 compared to unrealized losses \$336,000 during 2018.

The net gain on residential mortgage sales is directly related to the volume of mortgages sold and the timing of the sales relative to the interest rate environment. Residential mortgage loans to be sold are identified at origination. The net gain on the sale of residential mortgage loans was \$195,000 and \$105,000 for 2019 and 2018, respectively. Mortgage financing activity increased in 2019, as an improvement in rates prompted borrowers to purchase. Proceeds from the sale of residential mortgages were \$7,324,000 and \$4,478,000 for the years ended December 31, 2019 and 2018, respectively. Included in the gains on the sale of residential mortgages in 2019 and 2018 are \$54,000 and \$33,000, respectively, related to the recognition of mortgage servicing assets.

QNB retains servicing rights for residential mortgages sold in the secondary market. A servicing fee is retained on all mortgage loans sold and serviced. QNB recognizes its obligation to service financial assets that are retained in a transfer of assets in the form of a servicing asset. The servicing asset is amortized in proportion to, and over, the period of net servicing income or loss. On a quarterly basis, servicing assets are assessed for impairment based on their fair value. Mortgage servicing income of \$117,000 for 2019 and \$126,000 for 2018 is included in other non-interest income.

Other non-interest income, excluding mortgage servicing income, was \$519,000 for 2019, an increase of \$27,000 from the amount recorded in 2018. Other non-interest income included broker-dealer conversion costs reimbursements of \$83,000 and \$48,000 for 2019 and 2018, respectively. Other non-interest income included a \$58,000 deferred gain on the sale of a bank-financed other real estate owned property in 2019 and 2018 included a \$57,000 sales tax refund. Decreased revenues from letters of credit fees of \$22,000 were partially offset by increased revenue in credit cards and title company income of \$8,000 and \$12,000, respectively, when comparing 2019 to 2018.

## 2018 versus 2017

Total non-interest income was \$4,892,000 in 2018 compared with \$6,887,000 in 2017, a decrease of \$1,995,000.

Fees for services to customers are primarily comprised of service charges on deposit accounts. These fees were \$1,699,000 for 2018, an increase of \$31,000, or 1.9%, from 2017. Overdraft income, increased by \$50,000, or 3.9%, when comparing 2018 to 2017. ATM and debit card income was \$1,895,000 in 2018, an increase of \$146,000, or 8.3%, from the amount recorded in 2017. Debit card interchange income increased \$147,000, or 8.7%, to \$1,841,000 in 2018, while ATM surcharge income and monthly card fees income decreased \$1,000 to \$54,000.

Retail brokerage and advisory revenue was \$370,000 for 2018 compared with \$436,000 in 2017, a decline of \$66,000, or 15.1%. . In 2017 and throughout 2018, there was a transition to move toward advanced advisory fees based on assets under management in lieu of fees per transaction; advisory fees increased \$87,000 comparing 2018 to 2017. There were less sales in front-loaded products in 2018 than in 2017, resulting in a \$103,000 reduction of revenues.

Income on BOLI policies during 2017 was \$345,000, including a death benefit of \$52,000, compared to \$291,000 for 2018.

Merchant income represents fees charged to merchants for the Bank's handling of credit card or charge sales. Merchant income was \$326,000 for 2018, a decrease of \$19,000, or 5.5%, from the amount reported in 2017. The decrease in merchant income is primarily a result of competitive pricing and a loss of customers.

Net gains on investment securities decreased \$1,576,000 to a net loss of \$76,000 for the year ended December 31, 2018, compared with a gain of \$1,500,000 for the year ended December 31, 2017, primarily due to market conditions which resulted in greater opportunities for profitable sales in 2017 compared with 2018. QNB sold equity investment securities during 2018 to minimize potential future losses on certain securities. The prolonged decline in market value of one equity security in 2017 resulted in recording other than temporary impairment charges of \$80,000. Gains, net of other-than-temporary impairment, from equity securities were \$1,477,000 in 2017. Strong performance in the U.S. equity markets during 2017, enabled QNB to sell some equity holdings and recognize gains. Net gains on the sale of fixed income securities were \$5,000 and \$23,000 for 2018 and 2017, respectively. The 2017 fixed income gains were primarily from the sale of fast paying, lower-yielding or odd-lot mortgage-backed and CMO securities as well as low yielding agency bonds that were likely to be called in the following two years. Unrealized losses on equity securities were \$336,000 during 2018. There was no corresponding unrealized gain or loss recognized on equity securities for 2017, which preceded the effective date for ASU 2016-01.

During the second quarter 2017, QNB Bank redeemed the trading securities portfolio, as lack of market volatility and the interest rate environment resulted in declining performance of the portfolio. The net realized gains recorded for the six months ended June 30, 2017 were \$27,000

The net gain on the sale of residential mortgage loans was \$105,000 and \$276,000 for 2018 and 2017, respectively. Proceeds from the sale of residential mortgages were \$4,478,000 and \$9,041,000 for the years ended December 31, 2018 and 2017, respectively. Included in the gains on the sale of residential mortgages in 2018 and 2017 are \$33,000 and \$66,000, respectively, related to the recognition of mortgage servicing assets. The remaining \$99,000 gain on sale of loans in 2017 is attributed to QNB's portion of a purchased participation loan with no carrying balance that was sold. Mortgage servicing income of \$126,000 for 2018 and \$114,000 for 2017 is included in other non-interest income.

Other non-interest income, excluding mortgage servicing income, was \$492,000 for 2018, an increase of \$164,000 from the amount recorded in 2017. Other non-interest income for 2018 included \$48,000 in broker-dealer conversion costs reimbursement and a \$57,000 sales tax refund. Increased revenues from letters of credit, credit cards, and check sale commissions of \$55,000, \$15,000, and \$18,000, respectively, were partially offset by a reduction in title company income of \$10,000, when comparing 2018 to 2017

## Non-Interest Expense

### Non-interest expense comparison

Year ended December 31,	2019	2018	2017	Change from prior year			
				\$ Change		% Change	
				2019 to 2018	2018 to 2017	2019 to 2018	2018 to 2017
Salaries and employee benefits	\$ 16,086	\$ 14,411	\$ 13,121	\$ 1,675	\$ 1,290	11.6%	9.8%
Net occupancy	2,040	1,872	1,789	168	83	9.0	4.6
Furniture and equipment	2,496	2,165	1,859	331	306	15.3	16.5
Marketing	1,042	927	914	115	13	12.4	1.4
Third party services	1,853	1,889	1,608	(36)	281	-1.9	17.5
Telephone, postage and supplies	720	685	804	35	(119)	5.1	-14.8
State taxes	760	727	687	33	40	4.5	5.8
FDIC insurance premiums	269	624	577	(355)	47	-56.9	8.1
Other	2,838	2,585	2,361	253	224	9.8	9.5
Total	<u>\$ 28,104</u>	<u>\$ 25,885</u>	<u>\$ 23,720</u>	<u>\$ 2,219</u>	<u>\$ 2,165</u>	<u>8.6%</u>	<u>9.1%</u>

### 2019 versus 2018

Non-interest expense is comprised of costs related to salaries and employee benefits, net occupancy, furniture and equipment, marketing, third party services, FDIC insurance premiums, regulatory assessments and taxes and various other operating expenses. Total non-interest expense was \$28,104,000 in 2019, an increase of \$2,219,000, or 8.6%, from the \$25,885,000 recorded in 2018. QNB's overhead efficiency ratio, which represents the percentage of each dollar of revenue that is used for non-interest expense, is calculated by taking non-interest expense divided by net operating revenue (tax-equivalent net interest income plus non-interest income). QNB's efficiency ratios for 2019, 2018 and 2017 were 61.9%, 63.6%, and 58.0%, respectively. The decrease in the 2019 efficiency ratio is primarily due to security net gains in 2019 of \$2,525,000 versus net losses in 2018 of \$412,000.

Salaries and benefits expense is the largest component of non-interest expense. QNB monitors, using various surveys, the competitive salary and benefit information in its markets and makes adjustments when appropriate. Salaries and benefits expense for 2019 was \$16,086,000, an increase of \$1,675,000 compared with \$14,411,000 reported in 2018. Salary expense and related payroll taxes for 2019 was \$13,674,000, an increase of \$1,411,000 compared with \$12,263,000 reported in 2018. Included in salary expense in 2019 was incentive compensation plus related payroll taxes of \$1,040,000, a \$130,000 increase over incentive compensation in 2018. Benefit expense for 2019 was \$2,412,000, an increase of \$264,000, or 12.3%, from the amount recorded in 2018. Medical premiums increased \$129,000. Retirement plan matching and safe harbor increased \$71,000 compared to 2018. QNB utilized unvested forfeited 401(k) contributions to offset retirement plan matching in 2019 and 2018.

Net occupancy and furniture and equipment expense increased \$499,000, to \$4,536,000 when comparing 2019 to 2018, due primarily to increased software, higher depreciation resulting from 2019 renovations, one new branch and a branch relocation, building and equipment maintenance and branch rent.

Marketing expense was \$1,042,000 for 2019, a \$115,000 increase from the expense recorded in 2018. Advertising and sales promotions expense increased \$83,000 and marketing expenses related to public relations increased \$32,000, respectively, for the year ended December 31, 2019 compared with 2018. QNB's contributions and sponsorships for not-for-profit organizations, events and clubs in the communities it serves are included in public relations expense.

Third party services are comprised of professional services, including legal, accounting, auditing and consulting services, as well as fees paid to outside vendors for support services of day-to-day operations. These support services include correspondent banking services, statement printing and mailing, investment security safekeeping and supply management services. Third party services decreased \$36,000 when comparing the two periods, primarily due to tax preparation fees in 2018 of \$36,000 related to method changes implemented for the 2017 returns.

Telephone, postage and supplies expense increased \$35,000 to \$720,000 in 2019, compared with 2018, primarily due to an increase in postage expense of \$31,000.

FDIC insurance premium expense decreased \$355,000, or 56.9%, in 2019. The premium assessment formula for small institutions was changed by the FDIC and implemented in late 2016 and is based on asset growth and related risk assumptions determined by the FDIC as well as capital. Small institutions, for FDIC premium assessments purposes, are defined as those with total consolidated assets less than \$10 billion. On September 30, 2018, the Deposit Insurance Fund Reserve Ratio reached 1.36%. Because the reserve ratio has exceeded 1.35%, a change impacting QNB's deposit insurance assessment occurred under the FDIC regulations: Small

institutions were awarded assessment credits for the portion of their assessments that contributed to the growth in the reserve ratio from 1.15% to 1.35%, to be applied when the reserve ratio is at least 1.38%. QNB received \$273,000 in assessment credits during 2019.

State tax expense represents the payment of the Pennsylvania Shares Tax and Pennsylvania sales and use tax. State tax expense was \$760,000 and \$727,000 for the years 2019 and 2018, respectively. The Pennsylvania Shares Tax is based primarily on the equity of the Bank. The increase in Pennsylvania Shares Tax is a result of growth of the Bank's capital.

Other operating expenses for the twelve months ended December 31, 2019 increased \$253,000, or 9.8%. In 2019 there was a write-off of a receivable of \$103,000, the remaining increases were primarily due to debit card expense, business development costs and foreclosure expenses.

### **2018 versus 2017**

Total non-interest expense was \$25,885,000 in 2018, an increase of \$2,165,000, or 9.1%, from the \$23,720,000 recorded in 2017. Salaries and benefits expense for 2018 was \$14,411,000, an increase of \$1,290,000 compared with \$13,121,000 reported in 2017. Salary expense for 2018 was \$12,263,000, an increase of \$862,000 compared with \$11,401,000 reported in 2017. Included in salary expense in 2018 was incentive compensation plus related payroll taxes of \$910,000, a \$293,000 increase over incentive compensation in 2017. Benefit expense for 2018 was \$2,148,000, an increase of \$428,000, or 24.9%, from the amount recorded in 2017. Medical premiums increased \$340,000. Retirement plan matching and safe harbor increased \$75,000 compared to 2017. QNB utilized unvested forfeited 401(k) contributions to offset retirement plan matching in 2018 and 2017.

Net occupancy and furniture and equipment expense increased \$389,000, to \$4,037,000 when comparing 2018 to 2017, due primarily to increased software, higher depreciation resulting from 2018 renovations and a branch relocation, building and equipment maintenance and branch rent.

Marketing expense was \$927,000 for 2018, a \$13,000 increase from the expense recorded in 2017. Marketing expenses related to public relations increased \$23,000 for the year ended December 31, 2018 compared with 2017. QNB's contributions and sponsorships for not-for-profit organizations, events and clubs in the communities it serves are included in public relations expense.

Third party services increased \$281,000 when comparing the two periods, primarily due to increased legal services of \$62,000, information technology third party services of \$69,000, tax preparation fees of \$36,000 related to method changes implemented for the 2017 returns, and other third-party services.

Telephone, postage and supplies expense decreased \$119,000, or 14.8%, to \$685,000 in 2018, compared with 2017. Supplies expense decreased \$21,000 in 2018, as additional supplies related to EMV chip debit card production were purchased in 2017. Telecommunications expense decreased \$74,000 due cost savings related to the consolidation of services. Postage expense decreased \$24,000; additional expense was incurred in 2017 due to the issuance to EMV chip debit cards.

FDIC insurance premium expense increased \$47,000, or 8.1%, in 2018, primarily due to an increase in the assessment base.

State tax expense was \$727,000 and \$687,000 for the years 2018 and 2017, respectively. The Pennsylvania Shares Tax is based primarily on the equity of the Bank and comprises all but \$3,000 of the expense in this category. The increase in Pennsylvania Shares Tax is a result of growth of the Bank's capital.

Other operating expenses for the twelve months ended December 31, 2018 increased \$224,000, or 9.5%, primarily due to debit card expense, employee training and business development costs.

### **Income Taxes**

Applicable income tax expense and effective tax rates were \$2,850,000, or 18.7%, for 2019 compared with \$1,557,000, or 12.1%, for 2018. Under the 2017 Tax Reform Act, the corporate income tax rate was reduced from 34% to 21%; therefore, QNB recorded a charge reflecting the revaluation of its net deferred tax assets from 34% to 21% at December 31, 2017 resulting in additional tax expense of \$2,054,000. In 2018, QNB elected to change its tax methods for bad debt conformity and for loan origination costs effective with the filing of the 2017 tax return which resulted in a tax benefit of \$415,000. These discrete tax items were recorded in 2018.



## Summary Impact of 2017 Tax Reform Act and Discrete Tax Items

Year ended December 31,	2018	2017
Non-GAAP adjusted net income excluding impact of discrete items and tax legislation	\$ 10,920	\$ 10,343
Tax provision, discrete items and revaluation of net deferred tax asset	415	(2,054)
<b>Reported Net Income (GAAP)</b>	<b>\$ 11,335</b>	<b>\$ 8,289</b>
Non-GAAP earnings per share, excluding impact of discrete items and tax legislation	\$ 3.14	\$ 3.00
Effect of discrete items and tax legislation on diluted earnings per share	0.11	(0.59)
<b>Reported Diluted Earnings per Share (GAAP)</b>	<b>\$ 3.25</b>	<b>\$ 2.41</b>

Non-GAAP financial measures should be viewed in addition to, and not as an alternative for, our reported results prepared in accordance with GAAP. In the event of disclosure or release of non-GAAP financial measures, the SEC Regulation G requires: (i) the presentation of the most directly comparable financial measure calculated and presented in accordance with GAAP and (ii) a reconciliation of the differences between the non-GAAP financial measure presented and the most directly comparable financial measure calculated and presented in accordance with GAAP.

For the year ended December 31, 2019, the effective tax rate excluding the discrete items was 15.3%; the primary reason for the increase effective tax rate for 2019 over 2018 was due to the state taxes on the realized gains on securities. For the year ended December 31, 2017, the effective tax rate excluding the Tax Reform charge was 27.1%. The lower effective tax rate for 2018 over 2017 is primarily due to the decrease in the tax rate from 34% to 21%. QNB expects the effective tax rate in 2020 to be similar to the 18.7%, less than the 21% corporate rate, due to its holdings of tax-free assets, including municipal bonds, municipal loans, and life insurance contracts. For a more comprehensive analysis of income tax expense and deferred taxes, refer to Note 11 in the Notes to Consolidated Financial Statements.

## Financial Condition

### ASSETS

The following table presents total assets at the dates indicated:

Year ended December 31,	2019	2018	Change from prior year	
			Amount	Percent
Cash and cash equivalents	\$ 17,608	\$ 13,458	\$ 4,150	30.8%
Investment securities AFS	349,710	344,221	5,489	1.6
Investment equity securities	9,164	9,421	(257)	-2.7
Restricted investment in bank stocks	1,073	797	276	34.6
Loans held-for-sale	977	—	977	—
Loans receivable	820,616	785,448	35,168	4.5
Allowance for loan losses	(9,887)	(8,834)	(1,053)	-11.9
Premises and equipment, net	15,608	9,918	5,690	57.4
Bank-owned life insurance	11,490	11,192	298	2.7
Accrued interest receivable	2,828	2,852	(24)	-0.8
Other assets	5,836	6,979	(1,143)	-16.4
Total assets	<u>\$ 1,225,023</u>	<u>\$ 1,175,452</u>	<u>\$ 49,571</u>	<u>4.2%</u>

### Cash and interest-earning deposits

Total cash and cash equivalents increased \$4,150,000 from \$13,458,000 at December 31, 2018 to \$17,608,000 at December 31, 2019. QNB had interest-bearing balances at the Federal Reserve Bank of \$1,584,000 compared with \$489,000 and interest-bearing balances in a brokerage account of \$3,616,000 compared with \$72,000 at December 31, 2019 and December 31, 2018, respectively. Net cash

was provided by operating activities and proceeds received from deposit growth. Loan growth and the purchases of investment securities more than offset the maturity, prepayment and sales of investment securities.

### Investment Securities and Other Short-Term Investments

At December 31, 2019 and 2018, QNB had no Federal funds sold. With the Federal funds rate between 1.50% and 2.25%, excess funds for liquidity purposes are kept at the Federal Reserve, which was paying 2.00% until the Federal Open Market Committee lowered the targeted Fed Funds rate by 25 basis points three times in 2019 in mid-August 2019, mid-September 2019 and in mid-October 2019. These funds carry a 0% risk weighting for risk-based capital calculation purposes.

<b>Investment Portfolio History</b>				
<b>December 31,</b>		<b>2019</b>	<b>2018</b>	<b>2017</b>
<b>Investment Securities Available-for-Sale</b>				
U.S. Government agency	\$	69,298	\$ 68,409	\$ 70,524
State and municipal		50,781	66,313	76,804
U.S. Government agencies and sponsored enterprises (GSEs):				
Mortgage-backed		134,829	125,913	142,703
Collateralized mortgage obligations (CMOs)		86,610	75,491	76,302
Pooled trust preferred		79	116	215
Corporate debt		8,113	7,979	8,022
Total investment securities available-for-sale		<u>\$ 349,710</u>	<u>\$ 344,221</u>	<u>\$ 374,570</u>
<b>Equity Investments</b>				
Equity	\$	9,164	\$ 9,421	\$ 4,975
Total equity investments		<u>\$ 9,164</u>	<u>\$ 9,421</u>	<u>\$ 4,975</u>
Total investment securities		<u>\$ 358,874</u>	<u>\$ 353,642</u>	<u>\$ 379,545</u>

At December 31, 2019, approximately 83% of QNB's investment securities available-for-sale were either U.S. Government agency debt securities, U.S. Government agency issued mortgage-backed securities or CMOs. As of December 31, 2019, QNB held no securities of any one issue or any one issuer (excluding the U.S. Government and its agencies) that were in excess of 10% of shareholders' equity.

The QNB investment portfolio represents a significant portion of earning assets and interest income. QNB actively manages the investment portfolio in an attempt to maximize earnings, while considering liquidity needs, interest rate risk and credit risk. The decrease of the investment portfolio as a percent of total assets in 2019 is due to loan growth. Proceeds from the sale of investment securities available-for-sale were \$47,851,000 during 2019 compared with \$4,159,000 during 2018.

In addition to the proceeds from the sale of investment securities available-for-sale, proceeds from maturities, calls and prepayments were \$68,174,000 in 2019 compared with \$48,074,000 in 2018. During 2019, \$113,688,000 of investment securities available-for-sale were purchased compared with \$26,473,000 during 2018.

The balance of U.S. Government agency securities increased \$889,000 to \$69,298,000 at December 31, 2019 and represents 19.8% of the available-for-sale investment portfolio, level with 19.9% at December 31, 2018. U.S. Government agency issued CMO and MBS balances increased \$20,035,000 to \$221,439,000 and represents 63.4% of the available-for-sale portfolio compared with 58.5% at December 31, 2018. These bonds provide monthly cash flow to be reinvested in either loans or other securities, potentially at higher yields as rates increase.

The balance of municipal securities decreased \$15,532,000 to \$50,781,000 at December 31, 2019, representing 14.5% of the available-for-sale portfolio compared with 19.3% at December 31, 2018. QNB focuses on the financial performance of the underlying issuer for municipal bond purchases in addition to the bond rating of the issuer or the rating of bond insurer, if present. Twenty-three bonds with a book value of \$9,683,000 were called or matured in 2019 and thirty-seven bonds were sold for \$15,495,000. The demand for tax-exempt municipal securities has declined as the tax-equivalent yield is becoming less favorable compared to other securities with similar risk-based capital asset-weighting characteristics.

QNB owns one collateralized debt obligations (“CDO”) in the form of a pooled trust preferred security. The security is mainly comprised of securities issued by banks or bank holding companies. QNB owns the mezzanine tranche of this security. The security is structured so that the senior and mezzanine tranches are protected from defaults by over-collateralization and cash flow default protection provided by subordinated tranches. The trust preferred security the Bank continues to hold has a carrying balance of \$79,000 at December 31, 2019 and represents the senior-most obligation of the trust. There was no credit-related other-than-temporary impairment charge during 2019, 2018 or 2017. Future estimates of fair value of the remaining security could require recording additional OTTI charges through earnings. For additional detail on these securities see Notes 4 and 17 of the Notes to Consolidated Financial Statements.

Equity securities decreased \$257,000 to \$9,164,000 at December 31, 2019 from \$9,421,000 at December 31, 2018. QNB sold \$11,838,000 in equity securities for a net gain of \$1,781,000 and purchased \$9,030,000 in equities during 2019.

QNB accounts for its investments by classifying securities into four categories. Debt securities that QNB has the positive intent and ability to hold to maturity are classified as held-to-maturity securities and reported at amortized cost. Debt securities that are bought and held principally for the purpose of selling them in the near term are classified as trading securities and reported at fair value, with unrealized gains and losses included in earnings. Debt securities not classified as either held-to-maturity securities or trading securities are classified as available-for-sale securities and reported at fair value, with unrealized gains and losses, net of tax, excluded from earnings and reported as a separate component of shareholders’ equity. Equity investments with readily determinable fair values are measured at fair value with changes in fair value recognized in net income. Management determines the appropriate classification of securities at the time of purchase.

### Investment Portfolio Maturities and Weighted Average Yields

December 31, 2019	One year or less	After one year through five years	After five years through ten years	After ten years	Total
<b>Investment Securities Available-for-Sale</b>					
U.S. Government agency:					
Fair value	\$ 3,991	\$ 56,378	\$ 8,929	\$ —	\$ 69,298
Weighted average yield	1.36%	1.77%	2.34%	—	1.82%
State and municipal:					
Fair value	2,559	4,164	21,764	22,294	50,781
Weighted average yield	4.12%	3.78%	3.60%	3.26%	3.49%
Mortgage-backed:					
Fair value	1,062	108,767	25,000	—	134,829
Weighted average yield	1.86%	2.17%	2.46%	—	2.22%
Collateralized mortgage obligations (CMOs):					
Fair value	118	72,231	14,261	—	86,610
Weighted average yield	2.40%	2.22%	2.33%	—	2.24%
Pooled trust preferred:					
Fair value	—	—	—	79	79
Weighted average yield	—	—	—	4.33%	4.33%
Corporate debt:					
Fair value	3,010	2,011	3,092	—	8,113
Weighted average yield	2.04%	2.67%	5.60%	—	3.55%
Total fair value	\$ 10,740	\$ 243,551	\$ 73,046	\$ 22,373	\$ 349,710
Weighted average yield	2.27%	2.12%	2.89%	3.26%	2.36%

Securities are assigned to categories based on stated contractual maturity except for mortgage-backed securities and CMOs which are based on anticipated payment periods and state and municipal securities which are based on pre-refunded date, if applicable. Tax-exempt securities were adjusted to a tax-equivalent basis and are based on the marginal Federal corporate tax rate of 21% and a Tax Equity and Financial Responsibility Act (“TEFRA”) adjustment for the cost of funds. Weighted average yields on investment securities available-for-sale are based on amortized cost.

## **Investment Securities - Trading**

In 2014, QNB established a small percentage of its investment portfolio as trading in an effort to boost yields and income. During the second quarter 2017, QNB Bank redeemed the trading securities portfolio, as lack of market volatility and the interest rate environment resulted in declining performance of the portfolio, since its inception in 2014. QNB recorded a net gain of \$27,000 for 2017 in non-interest income.

## **Investments Available-For-Sale Debt Securities**

Available-for-sale investment securities include securities that management intends to use as part of its liquidity and asset/liability management strategy. These securities may be sold in response to changes in market interest rates, changes in the securities prepayment or credit risk, the need for liquidity, or growth in loan demand. At December 31, 2019, the fair value of investment debt securities available-for-sale was \$349,710,000, or \$325,000 above the amortized cost of \$349,385,000. This compares to a fair value of \$344,221,000, or \$9,028,000 below the amortized cost of \$353,249,000, at December 31, 2018. The available-for-sale portfolio, excluding the pooled trust preferred securities, had a weighted average maturity of approximately 4.6 years at December 31, 2019 and 4.8 years at December 31, 2018. The weighted average tax-equivalent yield, excluding the pooled trust preferred securities, was 2.36% and 2.38% at December 31, 2019 and 2018, respectively.

The weighted average maturity is based on the stated contractual maturity or likely call date of all securities except for MBS and CMOs, which are based on estimated average life. The maturity of the portfolio could become shorter if interest rates declined and prepayments on MBS and CMOs increased or securities are called. However, the estimated average life could lengthen if interest rates were to increase and principal payments on MBS and CMOs slowed or securities anticipated to be called extend past their call date.

## **Investments Held-To-Maturity Debt Securities**

QNB did not hold any held-to-maturity security during 2019 or 2018.

## **Investments in Equity Securities**

QNB adopted ASU 2016-01, Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities, effective January 1, 2018. This ASU was issued by the Financial Accounting Standards Board (FASB) on January 5, 2016 to enhance the reporting model for financial instruments to address certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The FASB issued ASU 2018-03 in February 2018 which provides technical corrections and improvements to ASU 2016-01. QNB used the modified retrospective method for transition in which the cumulative effect will be recognized at the date of adoption with no restatement of comparative periods presented. QNB reclassified a loss, net of taxes, of \$254,000 from accumulated other comprehensive loss to retained earnings on January 1, 2018. At December 31, 2017, the fair value of the equity securities was \$4,975,000, or \$321,000 below the cost of \$5,296,000. Increases and decreases in the fair value were recognized in net income during 2018 and 2019. At December 31, 2019, the fair value of the equity securities was \$9,164,000, or \$111,000 above the cost of \$9,053,000 compared to \$9,421,000, or \$658,000 below the cost of \$10,079,000 at December 31, 2018.

## **Loans**

QNB's primary business is to accept deposits and to make loans to meet the credit needs of the communities it serves. Loans are the most significant component of earning assets, and growth in loans to small businesses and residents of these communities has been a primary focus of QNB. Inherent within the lending function is the evaluation and acceptance of credit risk and interest rate risk. QNB manages credit risk associated with its lending activities through portfolio diversification, underwriting policies and procedures and loan monitoring practices.

QNB has comprehensive policies and procedures that define and govern commercial and retail loan originations and the management of risk. All loans are underwritten in a manner that emphasizes the borrowers' capacity to pay. The measurement of capacity to pay delineates the potential risk of non-payment or default. The higher potential for default determines the need for and amount of collateral required. QNB makes unsecured commercial loans when the capacity to pay is considered substantial. As capacity lessens, collateral is required to provide a secondary source of repayment and to mitigate the risk of loss. Various policies and procedures provide guidance to the lenders on such factors as amount, terms, price, maturity and appropriate collateral levels. Each risk factor is considered critical to ensuring that QNB receives an adequate return for the risk undertaken, and that the risk of loss is minimized.

QNB manages the risk associated with commercial loans by having lenders work in tandem with credit analysts while maintaining independence between personnel. In addition, a Bank loan committee and a committee of the Board of Directors review and approve certain loan requests on a weekly basis. Other than disclosed in the forthcoming Loan Portfolio Table, at December 31, 2019, there was a concentration of loans to lessors of residential buildings and dwellings of 16.6% of total loans and to lessors of nonresidential buildings of 18.3% of total loans, compared with 15.8% and 18.1% of total loans, respectively, at December 31, 2018. These concentrations were primarily within the commercial real estate categories.

QNB moved from an eight-grade risk rating system to a ten-grade system in 2018, further disaggregating the credit quality of the loan portfolio to enhance credit risk strategies.

QNB's commercial lending activity is focused on small businesses within the local community. Commercial purpose loans are generally perceived as having more risk of default than residential real estate loans with a personal purpose and consumer loans. These types of loans involve larger loan balances to a single borrower or group of related borrowers and are more susceptible to a risk of loss during a downturn in the business cycle. These loans may involve greater risk because the availability of funds to repay these loans depends on the successful operation of the borrower's business. The assets financed are used within the business for its ongoing operation. Repayment of these types of loans generally comes from the cash flow of the business or the ongoing conversions of assets, such as accounts receivable and inventory, to cash. Commercial and industrial loans represent commercial purpose loans that are either secured by collateral other than real estate or unsecured.

Commercial loans secured by commercial real estate include commercial purpose loans collateralized at least in part by commercial real estate. Some of these loans may not be for the express purpose of conducting commercial real estate transactions. Commercial loans secured by residential real estate are commercial purpose loans generally secured by the business owner's residence or residential investment properties owned by the borrower and rented to tenants. Commercial loans secured by either commercial real estate or residential real estate are originated primarily within the Eastern Pennsylvania market area, are within the Bank's underwriting criteria, and generally include the guarantee of the borrowers. Repayment of this kind of loan is dependent upon either the ongoing cash flow of the borrowing entity or the resale of or lease of the subject property. Commercial real estate and commercial construction loans may be affected to a greater extent than residential loans by adverse conditions in real estate markets or the economy because commercial real estate borrowers' ability to repay their loans depends on successful development of their properties.

Loans to state and political subdivisions are tax-exempt or taxable loans to municipalities, school districts and housing and industrial development authorities. These loans can be general obligations of the municipality or school district repaid through their taxing authority, revenue obligations repaid through the income generated by the operations of the authority, such as a water or sewer authority, or loans issued to a housing and industrial development agency, for which a private corporation is responsible for payments on the loans.

The Company originates fixed rate and adjustable-rate residential real estate loans that are secured by the underlying 1-4 family residential properties. Credit risk exposure in this area of lending is minimized by the evaluation of the credit worthiness of the borrower, including debt-to-income ratios, credit scores and adherence to underwriting policies that emphasize conservative loan-to-value ratios of generally no more than 80%. To reduce interest rate risk, qualifying originations of fixed-rate loans to individuals for 1-4 family residential mortgages with maturities of 15 years or greater are generally sold in the secondary market. Mortgage loan origination activity increased in 2019 with \$8,106,000 in residential mortgages originated for sale during 2019, compared with \$4,373,000 for 2018. There were \$977,000 in residential mortgage loans held-for-sale at December 31, 2019 and none at December 31, 2018. These loans are carried at the lower of aggregate cost or market.

The home equity portfolio consists of fixed-rate home equity loans and variable rate home equity lines of credit. These loans are often in a junior lien position and therefore carry a higher risk than first lien 1-4 family residential loans. Risks associated with loans secured by residential properties, either first lien residential mortgages or home equity loans and lines, are generally lower than commercial loans and include general economic risks, such as the strength of the job market, employment stability and the strength of the housing market. Since most loans are secured by a primary or secondary residence, the borrower's continued employment is the greatest risk to repayment.

The Company offers a variety of loans to individuals for personal and household purposes. Consumer loans are generally considered to have greater risk than loans secured by residential real estate because they may be unsecured, or, if they are secured, the value of the collateral may be difficult to assess or more likely to decrease in value than real estate. Credit risk in this portfolio is controlled by conservative underwriting standards that consider debt-to-income levels and the creditworthiness of the borrower, and, if secured, the value of the collateral.

Total loan receivables at December 31, 2019 were \$820,616,000, an increase of \$35,168,000, or 4.5%, from December 31, 2018. This follows a 7.1% increase in outstanding loans in 2018. A key financial ratio, loans to deposits, improved slightly to 79.1% at December 31, 2019, compared with 77.3% at December 31, 2018. QNB continues to be committed to make loans available to credit worthy consumers and businesses.

<b>Loan Portfolio</b>					
<b>December 31,</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>
<b>Commercial:</b>					
Commercial and industrial	\$ 168,031	\$ 162,452	\$ 147,190	\$ 110,233	\$ 124,397
Construction	56,209	50,135	51,157	39,268	27,372
Secured by commercial real estate	336,050	308,590	286,867	255,188	235,171
Secured by residential real estate	72,443	68,581	71,703	68,731	63,164
State and political subdivisions	38,376	43,737	38,087	35,260	40,285
Indirect lease financing	—	—	—	—	10,371
<b>Retail:</b>					
1-4 family residential mortgages	69,469	67,453	55,818	47,124	42,833
Home equity loans and lines	73,311	77,475	75,576	71,525	67,384
Consumer	6,530	6,785	6,680	5,670	4,286
<b>Total loans</b>	<b>820,419</b>	<b>785,208</b>	<b>733,078</b>	<b>632,999</b>	<b>615,263</b>
<b>Net unearned costs (fees)</b>	<b>197</b>	<b>240</b>	<b>205</b>	<b>80</b>	<b>7</b>
<b>Loans receivable</b>	<b>\$ 820,616</b>	<b>\$ 785,448</b>	<b>\$ 733,283</b>	<b>\$ 633,079</b>	<b>\$ 615,270</b>

#### **Loan Maturities and Interest Sensitivity**

<b>December 31, 2019</b>	<b>One year or less</b>	<b>After one year through five years</b>	<b>After five years</b>	<b>Total</b>
<b>Commercial:</b>				
Commercial and industrial	\$ 99,948	\$ 51,140	\$ 16,943	\$ 168,031
Construction	18,997	12,902	24,310	56,209
Secured by commercial real estate	10,098	15,342	310,610	336,050
Secured by residential real estate	1,991	2,961	67,491	72,443
State and political subdivisions	581	4,348	33,447	38,376
<b>Retail:</b>				
1-4 family residential mortgages	544	428	68,497	69,469
Home equity loans and lines	8,619	4,788	59,904	73,311
Consumer	597	2,111	3,822	6,530
<b>Total</b>	<b>\$ 141,375</b>	<b>\$ 94,020</b>	<b>\$ 585,024</b>	<b>\$ 820,419</b>

Demand loans and loans with no stated maturity are included in one year or less. Table details final maturity.

The following shows the amount of loans due after one year that have fixed interest rates and variable or adjustable interest rates at December 31, 2019:

Loans with fixed predetermined interest rates: \$103,603,000

Loans with variable or adjustable interest rates: \$575,441,000

The Allowance for Loan Losses Allocation table on Page 41 shows the percentage composition of the loan portfolio over the past five years. There was very little change in the composition of the portfolio between the periods ended December 31, 2018 and 2019. Loans secured by commercial real estate represent the largest sector of the portfolio, increasing slightly from 39.3% of the portfolio at December 31, 2018 to 41.0% of the portfolio at December 31, 2019, as the balances in this sector grew by \$27,460,000, or 8.9%, from \$308,590,000 at December 31, 2018 to \$336,050,000 at December 31, 2019. While loans secured by commercial real estate represent a significant portion of the total portfolio, the collateral is diversified, including investment properties, manufacturing facilities, office buildings, hospitals, retirement and nursing home facilities, warehouses and owner-occupied facilities. Commercial real estate loans have drawn the attention of the regulators in recent years as a potential source of risk. QNB monitors these types of loans closely, obtaining updated appraisals on loans classified substandard or worse. As detailed in the Allowance for Loan Losses table, QNB had no charge-offs in this category in 2019, 2018 or 2017.

Commercial loans secured by residential real estate increased by \$3,862,000, or 5.6%, to \$72,443,000 at December 31, 2019 and at 8.8% represent a slightly higher share of the overall portfolio than the 8.7% at December 31, 2018. Some of the properties that serve as collateral for these loans are located outside the Bank's market area and have experienced vacancies and significant declines in market value in prior years. Charge-offs in this category have significantly decreased over the past three years. Non-accrual commercial loans secured by residential real estate were \$851,000, \$1,102,000, and \$1,458,000 at December 31, 2019, 2018, and 2017, respectively. Net recoveries were \$72,000 in 2019, compared with net charge-offs \$50,000 in 2018 and net recoveries of \$15,000 in 2017. In 2019, \$73,000 of the net recoveries were out-of-market investment properties, compared with \$56,000 of the net charge-offs in 2018 and \$2,000 in net recoveries in 2017.

Commercial and industrial loans, the second largest sector of the portfolio, experienced growth in balances of \$5,579,000, or 3.4%, to \$168,031,000 at December 31, 2019. This followed a growth in this category of \$15,262,000, or 10.4%, in 2018. Commercial and industrial loans represented 20.5% of the portfolio at year-end 2019 compared with 20.7% at December 31, 2018. This category of loans generally presents a greater risk than loans secured by real estate since these loans are either secured by accounts receivable, inventory or equipment, or are unsecured. During 2019, nonaccrual commercial and industrial loan balances increased \$2,722,000 to \$5,901,000, the majority of which is due to six relationships being downgraded in 2019 of which one credit was partially charged-off by \$207,000. During 2017, nonaccrual commercial and industrial loan balances decreased \$1,431,000 to \$3,367,000, the majority of which is due to the partial charge-off of one credit of \$896,000 which was downgraded in 2017. In 2019, 2018, and 2017, charge-offs were \$207,000, \$0, and \$960,000, respectively.

Construction loans increased 12.1% from \$50,135,000, or 6.4% of the portfolio at December 31, 2018, to \$56,209,000, or 6.8% of the portfolio at December 31, 2019. These loans are primarily to developers and builders for the construction of residential units or commercial buildings or to businesses for the construction of owner-occupied facilities. This portfolio is diversified among different types of collateral including: 1-4 family residential construction, medical and retirement home facilities, office buildings, hotels and land for development loans. Construction loans are generally made only on projects that have municipal approval. These loans are usually originated to include a short construction period followed by permanent financing provided through a commercial mortgage after construction is complete. Once construction is complete, the balance is moved to the secured by commercial real estate category if the permanent financing is provided by the Bank. There were no charge-offs in the construction loan portfolio since 2011, and no construction loans on non-accrual since 2014.

Loans to state and political subdivisions decreased \$5,361,000, or 12.3%, from \$43,737,000 at December 31, 2018 to \$38,376,000 at December 31, 2019. This sector decreased from 5.6% of the total loan portfolio at December 31, 2018 to 4.7% at December 31, 2019. Many municipalities, counties and school districts refinanced their existing bonds or bank debt and, as a result, QNB had an opportunity to successfully bid on some these local issues. The decrease in 2019 was primarily due to one relationship lost during the end of 2019. Commitments for large projects won during 2016 started to fund during the first quarter of 2017 and throughout 2018. The 2017 Tax Reform Act made the tax effective yield on loans to state and political subdivisions less favorable than experienced historically.

Residential mortgage loans secured by first lien balances increased by \$2,016,000, or 3.0%, to \$69,469,000 at December 31, 2019. This followed an increase of \$11,635,000, or 20.8%, between December 31, 2017 and December 31, 2018. In 2019 and 2018, QNB retained some adjustable and fixed rate mortgages to borrowers with high credit scores and low loan-to-value ratios.

Balances in home equity loans and lines decreased \$4,164,000, or 5.4%, to \$73,311,000 at December 31, 2019. During 2019, QNB continued to offer very attractive rates on both variable and fixed rate home equity loans and lines. These attractive rates, along with excellent customer service, including quick turnaround time, contributed to the growth in home equity balances, however, paydowns and refinancing into mortgage loans contributed to the decline. With continued improvement in home values as well as the local economy, it is expected that the demand for home equity loans will continue.

Consumer loan balances decreased \$255,000 to \$6,530,000 at December 31, 2019. In 2013, QNB reentered the private student loan market through a relationship with iHelp. These student loans are either fixed or variable rate with the rate dependent on the credit scores of the student and/or the cosigner. As of December 31, 2019, the balance of student loans was \$3,396,000, a decrease of \$426,000 compared with December 31, 2018. Student loan balances will decline, as their balances are no longer insured, and QNB ceased funding originations through iHelp.

### **Non-Performing Assets**

Non-performing assets include non-performing loans, OREO and repossessed assets and non-performing trust preferred securities. Non-performing assets totaled \$16,464,000, or 1.34% of total assets at December 31, 2019, a \$6,826,000 increase over the \$9,638,000, or 0.82% of total assets at December 31, 2018. Included in non-performing assets in 2016 is \$2,281,000, of pooled trust preferred securities. In June 2017, QNB Bank sold five non-performing pooled trust preferred securities with a \$2,235,000 carrying value. The Bank's remaining trust preferred security was returned to accruing status in June 2017.

Total non-performing loans, which represent loans on non-accrual status, loans past due 90 days or more and still accruing interest and troubled debt restructured loans were \$16,464,000, or 2.01% of total loans receivable at December 31, 2019 compared with \$9,638,000, or 1.23% of total loans receivable at December 31, 2018. Loans on non-accrual status were \$11,704,000 at December 31, 2019 compared with \$7,478,000 at December 31, 2018. The increase was primarily due to \$7,050,000 being placed on nonaccrual of which \$5,065,000 were due to two commercial relationships, partially offset by paydowns of \$2,136,000, charge-offs of \$349,000, and loans returned to accruing status of \$339,000, specific impairment reserves have been established based on updated collateral values even if the borrower continues to pay in accordance with the terms of the agreement. Of the total amount of non-accrual loans

at December 31, 2019, \$7,245,000, or approximately 62% of the loans classified as non-accrual, are current or past due less than 30 days.

QNB had no loans 90 days or more past due and still accruing at December 31, 2019 or at December 31, 2018. Total loans that are 30 days or more past due increased \$1,019,000 to \$6,960,000, representing 0.85% of total loans at December 31, 2019 compared with \$5,941,000 and 0.76% of total loans at December 31, 2018. Restructured loans, as defined in accounting guidance for troubled debt restructuring in ASC 310-40, that have not already been included in loans past due 90 days or more and still accruing or in non-accrual loans, totaled \$4,760,000 and \$2,160,000 at December 31, 2019 and 2018, respectively. The increase in restructured loans was due to three relationships.

QNB held no OREO at December 31, 2019 or 2018. There were no repossessed assets as of December 31, 2019 or 2018.

**Non-Performing Assets**

December 31,	2019	2018	2017	2016	2015
Loans past due 90 days or more and accruing					
Commercial:					
Commercial and industrial	\$ —	\$ —	\$ —	\$ —	\$ —
Construction	—	—	—	—	—
Secured by commercial real estate	—	—	—	—	—
Secured by residential real estate	—	—	—	—	—
State and political subdivisions	—	—	—	—	—
Indirect lease financing	—	—	—	—	11
Retail:					
1-4 family residential mortgages	—	—	—	—	—
Home equity loans and lines	—	—	—	—	—
Consumer	—	—	—	—	—
Total loans past due 90 days or more and accruing	—	—	—	—	11
Non-accrual loans					
Commercial:					
Commercial and industrial	5,901	3,179	3,367	4,798	3,433
Construction	—	—	—	—	—
Secured by commercial real estate	3,640	1,965	1,987	3,007	3,627
Secured by residential real estate	851	1,102	1,458	1,866	1,803
State and political subdivisions	—	—	—	—	—
Indirect lease financing	—	—	—	—	143
Retail:					
1-4 family residential mortgages	636	940	882	266	287
Home equity loans and lines	537	166	142	89	127
Consumer	139	126	85	93	—
Total non-accrual loans	11,704	7,478	7,921	10,119	9,420
Troubled debt restructured loans, not included above	4,760	2,160	1,321	1,819	1,288
Other real estate owned	—	—	—	—	—
Non-accrual pooled trust preferred securities	—	—	—	2,281	2,653
Total non-performing assets	<u>\$ 16,464</u>	<u>\$ 9,638</u>	<u>\$ 9,242</u>	<u>\$ 14,219</u>	<u>\$ 13,372</u>
Total as a percent of total assets	1.34%	0.82%	0.80%	1.34%	1.31%

Additional loan quality information can be found in Note 5 of the Notes to the Consolidated Financial Statements included in Item 8 of this Form 10-K. Management's view is that loans classified as substandard or doubtful that are not included in the past due, non-accrual or restructured categories are potential problem loans. For some of these loans, management may have knowledge of possible credit problems that will cause management to question the ability of the borrowers to comply with the present loan repayment terms. Commercial loans classified as substandard or doubtful, which includes non-performing loans, continue to show improvement. At December 31, 2019, substandard or doubtful loans totaled \$15,922,000, a decrease of \$2,417,000, or 13.2%, from the \$18,339,000, reported as of December 31, 2018.



## Allowance for Loan Losses

The allowance for loan losses represents management's best estimate of the known and inherent losses in the existing loan portfolio. Management believes that it uses the best information available to make determinations about the adequacy of the allowance and that it has established its existing allowance for loan losses in accordance with U.S. generally accepted accounting principles ("GAAP"). The determination of an appropriate level of the allowance for loan losses is based upon an analysis of the risks inherent in QNB's loan portfolio. Management, in determining the allowance for loan losses, makes significant estimates and assumptions. Since the allowance for loan losses is dependent on conditions that may be beyond QNB's control, it is at least reasonably possible that management's estimates of the allowance for loan losses and actual results could differ. In addition, various regulatory agencies, as an integral part of their examination process, periodically review QNB's allowance for losses on loans. Such agencies may require QNB to recognize changes to the allowance based on their judgments about information available to them at the time of their examination. Actual loan losses, net of recoveries, serve to reduce the allowance.

Management closely monitors the quality of its loan portfolio and performs a quarterly analysis of the appropriateness of the allowance for loan losses and the level of unallocated reserves. This analysis considers a number of relevant factors including: specific impairment reserves, historical loan loss experience, general economic conditions, levels of and trends in delinquent and non-performing loans, levels of classified loans, trends in the growth rate of loans, and concentrations of credit.

Economic conditions, nationally and in QNB's market, continued to improve in 2019, and asset quality remained strong. The allowance level stated as a percent of loans receivable increased from 1.12% at December 31, 2018 to 1.20% at December 31, 2019. The allowance for loan losses increased to \$9,887,000 at year-end 2019 from 8,834,000 at year-end 2018, primarily due to the increase in loans receivable over the same period.

### Allowance for Loan Losses Allocation

December 31,	2019		2018		2017		2016		2015	
	Amount	Percent gross loans	Amount	Percent gross loans	Amount	Percent gross loans	Amount	Percent gross loans	Amount	Percent gross loans
Balance at end of period applicable to:										
Commercial:										
Commercial and industrial	\$4,689	20.5%	\$3,092	20.7%	\$2,711	20.1%	\$1,459	17.4%	\$1,521	20.2%
Construction	590	6.8	551	6.4	563	7.0	449	6.2	286	4.4
Secured by commercial real estate	2,519	41.0	2,824	39.3	2,410	39.1	2,646	40.3	2,411	38.2
Secured by residential real estate	629	8.8	754	8.7	816	9.8	1,760	10.9	1,812	10.3
State and political subdivisions	115	4.7	153	5.6	114	5.2	123	5.6	222	6.5
Indirect lease financing	—	—	—	—	—	—	—	—	164	1.7
Retail:										
1-4 family residential mortgages	549	8.5	497	8.6	444	7.6	366	7.4	350	7.0
Home equity loans and lines	310	8.9	338	9.9	357	10.3	353	11.3	428	11.0
Consumer	230	0.8	164	0.8	57	0.9	76	0.9	76	0.7
Unallocated	256		461		369		162		284	
Total	<u>\$9,887</u>	<u>100.0%</u>	<u>\$8,834</u>	<u>100.0%</u>	<u>\$7,841</u>	<u>100.0%</u>	<u>\$7,394</u>	<u>100.0%</u>	<u>\$7,554</u>	<u>100.0%</u>

Gross loans represent loans before unamortized net loan fees and costs. Percent gross loans lists the percentage of each loan type to total loans.

A loan is considered impaired, based on current information and events, if it is probable that QNB 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 may not be classified as impaired. Management determines the significance of payment delays and shortfalls on a case-by-case basis, taking into consideration all the circumstances surrounding the loan and the borrower, including length of the delay, the reasons for the delay, the borrower's prior payment record and the amount of the shortfall in relation to the principal and interest owed. Impairment is measured on a loan by loan basis for commercial loans by either the present value of expected future cash flows discounted at the loan's effective interest rate or the fair value of the collateral, if the loan is collateral dependent. At December 31, 2019 and 2018, the recorded investment in loans for which impairment has been identified totaled \$16,860,000 and \$16,482,000, respectively, of which \$8,082,000 and \$11,763,000, respectively, required no specific allowance for loan loss. The recorded investment in impaired loans requiring an allowance for loan losses was \$8,778,000 and \$4,719,000 at December 31, 2019 and 2018, respectively. At December 31, 2019 and 2018, the related allowance for loan losses associated with these loans was \$3,566,000 and \$1,664,000, respectively. See Note 5 to the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional detail of impaired loans.

**Allowance for Loan Losses**

	2019	2018	2017	2016	2015
<b>Allowance for loan losses:</b>					
Balance, January 1	\$ 8,834	\$ 7,841	\$ 7,394	\$ 7,554	\$ 8,001
<b>Charge-offs</b>					
<b>Commercial:</b>					
Commercial and industrial	207	—	960	140	56
Construction	—	—	—	—	—
Secured by commercial real estate	—	—	—	—	84
Secured by residential real estate	51	77	23	120	531
State and political subdivisions	—	—	—	—	—
Indirect lease financing	—	—	—	52	21
<b>Retail:</b>					
1-4 family residential mortgages	—	1	—	—	—
Home equity loans and lines	17	84	—	—	—
Consumer	197	112	92	92	95
Total charge-offs	472	274	1,075	404	787
<b>Recoveries</b>					
<b>Commercial:</b>					
Commercial and industrial	33	40	34	37	38
Construction	—	—	—	—	—
Secured by commercial real estate	10	23	8	8	9
Secured by residential real estate	123	27	38	112	26
State and political subdivisions	—	—	—	—	—
Indirect lease financing	—	—	—	9	16
<b>Retail:</b>					
1-4 family residential mortgages	—	—	—	—	—
Home equity loans and lines	15	13	10	16	22
Consumer	44	34	32	32	29
Total recoveries	225	137	122	214	140
Net charge-offs	(247)	(137)	(953)	(190)	(647)
Provision for loan losses	1,300	1,130	1,400	30	200
Balance, December 31	\$ 9,887	\$ 8,834	\$ 7,841	\$ 7,394	\$ 7,554

**Total loans (excluding loans held-for-sale)**

Average	\$ 811,413	\$ 766,692	\$ 682,292	\$ 604,757	\$ 574,015
Year-end	820,616	785,448	733,283	633,079	615,270

**Ratios:****Net charge-offs to:**

Average loans	0.03%	0.02%	0.14%	0.03%	0.11%
Loans at year-end	0.03	0.02	0.13	0.03	0.11
Allowance for loan losses	2.50	1.55	12.15	2.57	8.56
Provision for loan losses	19.00	12.12	68.07	633.33	323.50

**Allowance for loan losses to:**

Average loans	1.22%	1.15%	1.15%	1.22%	1.32%
Loans at year-end	1.20	1.12	1.07	1.17	1.23

QNB had net loan charge-offs of \$247,000, or 0.03% of average loans for 2019 compared with \$137,000, or 0.02% of average loans for 2018 and \$953,000, or 0.14% of average loans for 2017. The majority of charge-offs recorded during these periods had specific reserves established during the allowance for loan loss calculation process prior to the decision to charge-off the loan. The increase in commercial and industrial charge-offs in 2019 was primarily related to a single credit as well as in 2017.

Management believes the allowance for loan losses of \$9,887,000 is adequate as of December 31, 2019, in relation to the estimate of known and inherent losses in the portfolio.

### Premises and equipment

Premises and equipment includes a right-of-use asset of \$3,821,000 at December 31, 2019 associated with operating leases resulting from the adoption of ASU 2016-02, Leases (Topic 842) on January 1, 2019. The discount rates used in determining the initial value of the right of use assets are based on the FHLB Amortizing Fixed Loan Rate for the term of each lease. QNB typically enters into lease agreements with an initial term of 5 to 10 years and subsequent additional optional terms in increments of 5 years. The lease agreements also contain termination options. None of the leases contain purchase options and none transfer the ownership of the leased asset. QNB has renewed one operating lease and entered into two new operating leases during 2019. Operating lease liabilities are included with "Other liabilities" on the Consolidated Balance Sheets. All operating lease costs are included in non-interest expense within "Net occupancy" on the Consolidated Statements of Income. Other premises and equipment, net of depreciation increased \$1,869,000 to \$11,787,000 at December 31, 2019, QNB built a new building for a relocated branch and made improvements to a new leased space in the creation of its twelfth branch during 2019.

### Other assets

Other assets, as presented in the table on Page 33, decreased \$1,143,000 from \$6,979,000 at December 31, 2018 to \$5,836,000 at December 31, 2019. Most of the decrease in other assets relates to a \$2,283,000 decrease to the deferred tax asset resulting from the fair value adjustment on investment securities available-for-sale of \$1,964,000 and the fair value adjustments on equity securities of \$222,000. The detail of the net deferred tax asset can be found in Note 11 in the Notes to Consolidated Financial Statements.

## LIABILITIES

The following table presents total liabilities at the dates indicated:

Year ended December 31,	2019	2018	Change from prior year	
			Amount	Percent
Deposits	\$ 1,037,860	\$ 1,015,598	\$ 22,262	2.2%
Short-term borrowings	55,931	50,872	5,059	9.9
Accrued interest payable	909	449	460	102.4
Other liabilities	9,606	4,185	5,421	129.5
Total liabilities	<u>\$ 1,104,306</u>	<u>\$ 1,071,104</u>	<u>\$ 33,202</u>	<u>3.1%</u>

### Deposits

QNB primarily attracts deposits from within its market area by offering various deposit products. These deposits are in the form of time deposits, which include certificates of deposit and individual retirement accounts ("IRA"s) which have a stated maturity, and non-maturity deposit accounts, which include: non-interest-bearing demand accounts, interest-bearing demand accounts, money market accounts and savings accounts.

Total deposits increased \$22,262,000, or 2.2%, to \$1,037,860,000 at December 31, 2019. This follows an increase of \$21,650,000, or 2.2%, from 2017 to 2018. QNB has experienced growth in part due to market disruption created by bank mergers in its footprint throughout 2017, 2018 and 2019. The growth in deposits as well as the mix of deposits continues to be impacted by customers' reactions to the competition, regulations and the interest rate environment. Many customers are looking for transaction accounts that provide liquidity and pay a reasonable amount of interest, while others look for high rate. Time deposit balances increased \$11,788,000, or 5.3% between 2018 and 2019. Customers appear to be looking for the safety of FDIC insured deposits and the stability of a strong local community bank.

Non-interest-bearing demand accounts increased \$17,655,000 to \$146,270,000 at December 31, 2019. This followed slight growth of \$597,000 between December 31, 2017 and December 31, 2018. These deposits are primarily comprised of business checking accounts and are volatile depending on the timing of deposits and withdrawals. QNB has been successful in attracting new customers and expanding relationships with existing customers, which provides an opportunity for fee income.

Interest-bearing demand accounts, retail and business interest checking and municipal accounts increased \$28,266,000, or 9.3%, to \$332,918,000 at December 31, 2019. All three segments experienced growth in 2019 except municipal accounts. QNB has been successful in developing relationships with several school districts and municipalities as well as expanding existing relationships, the balances in these accounts are seasonal in nature and can be volatile on a daily basis. Most of the school district taxes are collected

during the third quarter of the year and are disbursed over a nine-month period. Business checking increased from \$41,990,000 at December 31, 2018 to \$47,577,000 at December 31, 2019. Retail checking accounts increased \$4,463,000, or 2.6%, to \$173,424,000 at December 31, 2019. QNB continues to open a significant number of new checking accounts; additionally, customers may choose to switch products. Rewards checking balances increased \$6,706,000 from \$57,621,000 at December 31, 2018 to \$64,327,000 at December 31, 2019, offsetting the decline in personal interest-bearing balance of \$6,128,000. The balances in the Select 50 product increased \$3,651,000 from \$87,598,000 at December 31, 2018 to \$91,249,000 at December 31, 2019.

Money Market accounts decreased from \$78,781,000 at December 31, 2018 to \$75,634,000 at December 31, 2019 due to decreases in both personal and business accounts.

Total savings account balances decreased \$32,300,000, or 11.5%, to \$247,462,000 at December 31, 2019. This decrease is due primarily to a decrease in the online eSavings account of \$32,627,000, or 15.6%, to \$176,366,000 at December 31, 2019. The rate on eSavings accounts was changed from 0.85% at the end of 2018 to 0.80% in December 2019. Many customers in these accounts moved balance to higher interest accounts or accounts with more liquidity.

Total time deposit account balances were \$235,576,000 at December 31, 2019, an increase of \$11,788,000, or 5.3%, from the amount reported at December 31, 2018. QNB was able to retain many maturing deposits during 2019 by offering competitive rates and many current customers move balances from more liquid accounts to take advantage of these rates.

<b>Maturity of Time Deposits of \$100,000 or More</b>			
<b>Year ended December 31,</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
Three months or less	\$ 41,618	\$ 11,916	\$ 11,842
Over three months through six months	10,828	7,447	10,937
Over six months through twelve months	23,165	17,575	21,972
Over twelve months	39,048	69,281	55,946
<b>Total</b>	<b>\$ 114,659</b>	<b>\$ 106,219</b>	<b>\$ 100,697</b>

To continue to attract and retain deposits, QNB plans to remain competitive with respect to rates and to continue to deliver products with terms and features that appeal to customers. The QNB Rewards checking accounts and time deposits are examples of such products.

The following table presents trends in balances and yield on the major deposit groups.

<b>Average Deposits by Major Classification</b>	<b>2019</b>		<b>2018</b>		<b>2017</b>	
	<b>Balance</b>	<b>Rate</b>	<b>Balance</b>	<b>Rate</b>	<b>Balance</b>	<b>Rate</b>
Demand, non-interest bearing	\$ 142,072		\$ 130,633		\$ 121,819	
Interest-bearing demand	212,415	0.47%	194,372	0.35%	169,940	0.21%
Municipals interest-bearing demand	112,539	1.80	106,411	1.44	110,052	0.71
Money market	90,150	0.90	77,713	0.42	84,203	0.30
Savings	242,859	0.66	266,946	0.62	249,894	0.46
Time	120,980	1.58	121,021	1.30	128,603	1.18
Time of \$100,000 or more	109,358	1.90	106,058	1.62	97,987	1.40
<b>Total</b>	<b>\$ 1,030,373</b>	<b>0.91%</b>	<b>\$ 1,003,154</b>	<b>0.75%</b>	<b>\$ 962,498</b>	<b>0.56%</b>

### Short-term borrowings

Short-term borrowings comprising commercial sweep accounts and overnight FHLB borrowings increased \$5,059,000, or 9.9%, to \$55,931,000 at December 31, 2019 to support loan growth. Overnight FHLB borrowings increased \$7,952,000, to \$11,817,000 at December 31, 2019. Commercial sweeps decreased \$2,893,000, or 6.2%, to \$44,114,000 at December 31, 2019.

### Other liabilities

Other liabilities comprise accrued expenses including salaries, post-retirement life insurance benefits and income taxes, deferred revenue, and ATM/debit card processing clearing, these balances increased \$1,278,000, to \$5,463,000 at December 31, 2019. Additionally, the balance at December 31, 2019 includes a lease liability of \$4,143,000 associated with operating leases resulting from the adoption of ASU 2016-02 on January 1, 2019.

## Liquidity

Liquidity represents an institution's ability to generate cash or otherwise obtain funds at reasonable rates to satisfy demand for loans and deposit withdrawals. QNB attempts to manage its mix of cash and interest-bearing balances, Federal funds sold and investment securities to match the volatility, seasonality, interest sensitivity and growth trends of its loans and deposits. The Company manages its liquidity risk by measuring and monitoring its liquidity sources and estimated funding needs. Liquidity is provided from asset sources through repayments and maturities of loans and investment securities. The portfolio of investment securities classified as available for sale and QNB's policy of selling certain residential mortgage originations in the secondary market also provide sources of liquidity. Core deposits and cash management repurchase agreements have historically been the most significant funding source for QNB. These deposits and repurchase agreements are generated from a base of consumers, businesses and public funds primarily located in the Company's market area.

An additional source of liquidity is provided by the Bank's membership in the FHLB. At December 31, 2019, the Bank had a maximum borrowing capacity with the FHLB of approximately \$323,146,000, net of the \$11,817,000 outstanding at year-end 2019 and the \$350,000 in FHLB-issued letters of credit. The maximum borrowing capacity changes depending upon the Bank's level of qualifying collateral assets. QNB had \$11,817,000 and \$3,865,000 in FHLB borrowings at December 31, 2019 and 2018, respectively. In addition, the Bank maintains five unsecured Federal funds lines with five correspondent banks totaling \$61,000,000. At December 31, 2019 and 2018, there were no outstanding borrowings under these lines. Future availability under these lines is subject to the policies of the granting banks and may be withdrawn. As part of its contingency funding plan, QNB successfully tested its ability to borrow from these sources during the fourth quarter of 2019.

Total cash and cash equivalents, equity and available-for-sale securities and loans held-for-sale totaled \$377,459,000 at December 31, 2019 and \$367,100,000 at December 31, 2018, of which \$205,016,000 and \$194,573,000, respectively, were pledged as collateral for repurchase agreements and public deposits. This increase in liquid sources is primarily the result of a \$5,489,000 increase in available-for-sale securities and a \$4,150,000 increase in cash. Management anticipates that these liquid sources are adequate to meet normal fluctuations in loan demand or deposit withdrawals. It is anticipated that the investment portfolio will continue to provide sufficient liquidity as municipal bonds are called and as principal and interest payments on mortgage-backed and CMO securities provide steady cash flow. Increases in interest rates, however, result in decreased cash flow available from the investment portfolio.

QNB is a member of the Certificate of Deposit Account Registry Services ("CDARS") program offered by the Promontory Interfinancial Network, LLC. CDARS is a funding and liquidity management tool used by banks to access funds and manage their balance sheet. It enables financial institutions to provide customers with full FDIC insurance on time deposits over \$250,000 that are placed in the program. QNB also has available Insured Cash Sweep ("ICS"), another program through Promontory Interfinancial Network, LLC, which is a product similar to CDARS, but one that provides liquidity like a money market or savings account. QNB had \$1,586,000 in CDARS time deposits at December 31, 2019.

## SHAREHOLDERS' EQUITY

The following table presents total shareholders' equity at the dates indicated:

Year ended December 31,	2019	2018	Change from prior year	
			Amount	Percent
Common stock	\$ 2,303	\$ 2,280	\$ 23	1.0%
Surplus	21,261	20,041	1,220	6.1
Retained earnings	99,372	91,635	7,737	8.4
Accumulated other comprehensive gain (loss), net of tax	257	(7,132)	7,389	103.6
Treasury stock	(2,476)	(2,476)	—	—
Total shareholders' equity	<u>\$ 120,717</u>	<u>\$ 104,348</u>	<u>\$ 16,369</u>	<u>15.7%</u>

Total shareholders' equity increased \$16,369,000, or 15.7%, to \$120,717,000 at December 31, 2019 with retained earnings -- net income less dividends paid -- contributing \$7,737,000 and the dividend reinvestment and stock purchase plan, employee stock purchase plan and stock option plan contributing \$1,243,000.

Accumulated other comprehensive gain (loss) increased \$7,389,000; to a \$257,000 gain, resulting from the increase in fair value of the available-for-sale investment portfolio due to maturities of securities and calls on securities being replaced during 2019. QNB adopted ASU 2016-01, Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities, and ASU 2018-02, Income Statement—Reporting Comprehensive Income (Topic 202), in the first quarter of 2018 as discussed in Note 1. The implementation of ASU 2016-01 and ASU 2018-02 resulted in reclasses within Shareholders Equity from "Accumulated other comprehensive loss, net of tax" to "Retained earnings" of a \$254,000 net loss and a \$805,000 net gain, respectively.

QNB remains “well capitalized” based on FDIC requirements.

### Capital Adequacy

A strong capital position is fundamental to support continued growth and profitability and to serve the needs of depositors. QNB’s shareholders’ equity at December 31, 2019 was \$120,717,000, or 9.85% of total assets, compared with shareholders’ equity of \$104,348,000, or 8.88% of total assets, at December 31, 2018. Shareholders’ equity at December 31, 2019 included a positive adjustment of \$257,000 related to unrealized holding losses, net of taxes, on investment securities available for sale. At December 31, 2018 included a negative adjustment of \$7,132,000 related to unrealized holding losses, net of taxes, on investment securities available-for-sale. Excluding these adjustments, shareholders’ equity to total assets would have been 9.84% and 9.43% at December 31, 2019 and 2018, respectively.

Average shareholders’ equity and average total assets were \$116,771,000 and \$1,212,040,000 for 2019, an increase of 7.9% and 3.0%, respectively, from 2018 average equity and average total assets of \$108,241,000 and \$1,176,910,000, respectively. The ratio of average total equity to total average assets was 9.63% for 2019, compared with 9.20% for 2018.

QNB is subject to restrictions on the payment of dividends to its shareholders pursuant to the Pennsylvania Business Corporation Law of 1988 as amended (the BCL). The BCL operates generally to preclude dividend payments, if the effect thereof would render QNB insolvent, as defined. As a practical matter, QNB’s payment of dividends is contingent upon its ability to obtain funding in the form of dividends from the Bank. Under Pennsylvania banking law, the Bank is subject to certain restrictions on the amount of dividends that it may declare without prior regulatory approval. At December 31, 2019, the retained earnings of the Bank totaling \$105,837,000 was available for dividends without prior Pennsylvania Department of Banking approval, subject to the regulatory capital requirements discussed below. The approval of the Federal Reserve is required for a state bank member in the Federal Reserve system to pay dividends if the total of all dividends declared in any calendar year exceeds the Bank’s net profits (as defined) for that year combined with its retained net profits for the preceding two calendar years. Under this formula, the Bank can declare dividends in 2020 without approval of the Federal Reserve of approximately \$18,644,000 plus an additional amount equal to the Bank’s net profits for 2020 up to the date of any such dividend declaration. QNB paid dividends to its shareholders of \$1.32 per share, \$1.28 per share, and \$1.24 per share, in 2019, 2018, and 2017, respectively.

QNB is subject to various regulatory capital requirements as issued by Federal regulatory authorities. Regulatory capital is defined in terms of Tier 1 capital and Tier 2. Risk-based capital ratios are expressed as a percentage of risk-weighted assets. Risk-weighted assets are determined by assigning various weights to all assets and off-balance sheet arrangements, such as letters of credit and loan commitments, based on associated risk. QNB is subject to various regulatory capital requirements as issued by Federal regulatory authorities. The final rules implementing the Basel Committee on Banking Supervision’s capital guidelines for U.S. banks (“Basel III”) became effective for QNB on January 1, 2015, with full compliance with all the of final rule’s requirements phased in over a multi-year schedule, to be fully phased-in by January 1, 2019.

Under the final rules, minimum requirements increased for both the quantity and quality of capital held by banks. The rules included a new common equity Tier 1 capital to risk-weighted assets minimum ratio of 4.5%, raised the minimum ratio of Tier 1 capital to risk-weighted assets from 4.0% to 6.0%, required a minimum ratio of Total Capital to risk-weighted assets of 8.0%, and required a minimum Tier 1 leverage ratio of 4.0%. A new capital conservation buffer, comprised of common equity Tier 1 capital, was also established above the regulatory minimum capital requirements. This capital conservation buffer was phased in beginning January 1, 2016, at 0.625% of risk-weighted assets and increase each subsequent year by an additional 0.625% until reaching its final level of 2.5% on January 1, 2019. Strict eligibility criteria for regulatory capital instruments were also implemented. The final rules also revised the definition and calculation of Tier 1 capital, Total Capital, and risk-weighted assets. QNB and the Bank had enough capital to meet the fully phased in buffer on January 1, 2019.

QNB offers a Dividend Reinvestment and Stock Purchase Plan (the “Plan”) to provide participants a convenient and economical method for investing cash dividends paid on the Company’s common stock in additional shares at a discount. The Plan also allows participants to make additional cash purchases of stock at a discount. Stock purchases under the Plan contributed \$863,000 and \$979,000 to capital during 2019 and 2018, respectively.

The Board of Directors has authorized the repurchase of up to 100,000 shares of QNB’s common stock in open market or privately negotiated transactions. The repurchase authorization does not bear a termination date. As of December 31, 2019 and 2018, 57,883 shares were repurchased under this authorization at an average price of \$16.97 and a total cost of \$982,000. There were no shares repurchased under the plan since the first quarter of 2009.

The Federal Deposit Insurance Corporation Improvement Act of 1991 established five capital level designations for insured institutions ranging from “well capitalized” to “critically undercapitalized.” At December 31, 2019 and 2018, management believes

that the Company and the Bank met all capital adequacy requirements to which they are subject and have met the “well capitalized” criteria.

<b>Capital Analysis</b>		
<b>December 31,</b>	<b>2019</b>	<b>2018</b>
<b>Regulatory Capital</b>		
Shareholders' equity	\$ 120,717	\$ 104,348
Net unrealized securities losses, net of tax	(257)	7,132
Deferred tax assets on net operating loss	—	—
Disallowed goodwill and other disallowed intangible assets	(8)	(8)
Common equity tier I capital	<u>120,452</u>	<u>111,472</u>
Tier 1 capital	120,452	111,472
Allowable portion: Allowance for loan losses and reserve for unfunded commitments	<u>9,960</u>	<u>8,907</u>
Total regulatory capital	<u>\$ 130,412</u>	<u>\$ 120,379</u>
Risk-weighted assets	<u>\$ 943,725</u>	<u>\$ 911,374</u>
Quarterly average assets for leverage capital purposes	<u>\$ 1,232,064</u>	<u>\$ 1,186,448</u>

<b>Capital Ratios</b>		
<b>December 31,</b>	<b>2019</b>	<b>2018</b>
Common equity tier I capital / risk-weighted assets	12.76%	12.23%
Tier 1 capital / risk-weighted assets	12.76%	12.23%
Total regulatory capital / risk-weighted assets	13.82%	13.21%
Tier 1 capital / average assets (leverage ratio)	9.78%	9.40%

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

QNB has various financial obligations, including contractual obligations and commitments, which may require future cash payments.

The following table presents, as of December 31, 2019, significant contractual obligations to third parties by payment date and the amounts and expected maturities of significant commitments. Further discussion of the nature of each obligation can be found in the Notes to Consolidated Financial Statements. The Company’s reserve for unfunded commitments totaled \$73,000 at both December 31, 2019 and December 31, 2018.

<b>December 31, 2019</b>	<b>One year or less</b>	<b>After one year through three years</b>	<b>After three years through five years</b>	<b>After five years</b>	<b>Total</b>
Time deposits	\$ 140,955	\$ 75,141	\$ 19,480	\$ —	\$ 235,576
Short-term borrowings	55,931	—	—	—	55,931
Operating leases	533	935	736	3,255	5,459
Commitments to extend credit <sup>(a)</sup>	198,373	13,204	16,002	45,509	273,088
Standby letters of credit	10,235	1,469	—	—	11,704
Total	<u>\$ 406,027</u>	<u>\$ 90,749</u>	<u>\$ 36,218</u>	<u>\$ 48,764</u>	<u>\$ 581,758</u>

(a) Includes available amounts for overdraft protection program in one year or less

Commitments to extend credit, including loan commitments, standby letters of credit, and commercial letters of credit do not necessarily represent future cash requirements, as these commitments often expire without being drawn upon. The Company does not currently have any commitments for significant capital expenditures or other purchase obligations.

## Market Risk Management

Market risk reflects the risk of economic loss resulting from changes in interest rates and market prices. QNB's primary market risk exposure is interest rate risk and liquidity risk. QNB's liquidity position was discussed in a prior section.

QNB's largest source of revenue is net interest income, which is subject to changes in market interest rates. Interest rate risk management seeks to minimize the effect of interest rate changes on net interest margins and interest rate spreads and to provide growth in net interest income through periods of changing interest rates. QNB's Asset/Liability and Investment Management Committee ("ALCO") is responsible for managing interest rate risk and for evaluating the impact of changing interest rate conditions on net interest income.

QNB uses computer simulation analysis to measure the sensitivity of projected earnings to changes in interest rates. Simulation considers current balance sheet volumes and the scheduled repricing dates, instrument level optionality, and maturities of assets and liabilities. It incorporates assumptions for growth, changes in the mix of assets and liabilities, prepayments, and average rates earned and paid. Based on this information, management uses the model to project net interest income under multiple interest rate scenarios.

A balance sheet is considered liability sensitive when its liabilities (deposits and borrowings) reprice faster or to a greater extent than its earning assets (loans and securities). A liability sensitive balance sheet will produce relatively less net interest income when interest rates rise and more net interest income when they decline. Based on our simulation analysis, management believes QNB's interest sensitivity position at December 31, 2019 is liability sensitive. Management expects that market interest rates may gradually increase in the next 12 months, based on the economic environment and policy of the Federal Reserve.

The following table shows the estimated impact of changes in interest rates on net interest income as of December 31, 2019 and 2018 assuming instantaneous rate shocks, and consistent levels of assets and liabilities. Net interest income for the subsequent twelve months is projected to decrease when interest rates are higher than current rates.

Estimated change in net interest income		
Change in interest rates (basis points)	December 31,	
	2019	2018
+300	-7.7%	-5.0%
+200	-4.8%	-3.3%
+100	-2.1%	-1.6%
-100	-2.0%	-0.4%

Computations of future effects of hypothetical interest rate changes are based on numerous assumptions and should not be relied upon as indicative of actual results. Assets and liabilities may react differently than projected to changes in market interest rates. The interest rates on certain types of assets and liabilities may fluctuate in advance of changes in market interest rates, while rates on other types of assets and liabilities may lag changes in market interest rates. Interest rate shifts may not be parallel.

Changes in interest rates can cause substantial changes in the amount of prepayments of loans and mortgage-backed securities, which may in turn affect QNB's interest rate sensitivity position. Additionally, credit risk may rise if an interest rate increase adversely affects the ability of borrowers to service their debt.

QNB is not subject to foreign currency exchange or commodity price risk. At December 31, 2019, QNB did not have any hedging transactions in place such as interest rate swaps, caps or floors.

## RECENTLY ISSUED ACCOUNTING STANDARDS

Refer to Note 1 of the Notes to Consolidated Financial Statements for discussion of recently issued accounting standards.



## **CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

Disclosure of the Company's significant accounting policies is included in Note 1 to Consolidated Financial Statements. Additional information is contained in Management's Discussion and Analysis and the Notes to Consolidated Financial Statements for the most sensitive of these issues. The discussion and analysis of the financial condition and results of operations are based on the consolidated financial statements of QNB, which are prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and predominant practices within the banking industry. The preparation of these consolidated financial statements requires QNB to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. QNB evaluates estimates on an on-going basis, including those related to the determination of the allowance for loan losses, the determination of the valuation of other real estate owned, other-than-temporary impairments on investment securities, the determination of impairment of restricted bank stock, the valuation of deferred tax assets, stock-based compensation and income taxes. QNB bases its estimates on historical experience and various other factors and assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

### **Other-than-Temporary Investment Security Impairment**

Securities are evaluated periodically to determine whether a decline in their value is other-than-temporary. Management utilizes criteria such as the magnitude and duration of the decline, in addition to the reasons underlying the decline, to determine whether the loss in value is other-than-temporary. The term "other-than-temporary" is not intended to indicate that the decline is permanent, but indicates that the prospect for a near-term recovery of value is not necessarily favorable, or that there is a lack of evidence to support a realizable value equal to or greater than the carrying value of the investment.

The Company follows the accounting guidance in Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 320-10 as it relates to the recognition and presentation of other-than-temporary impairment ("OTTI"). This accounting guidance specifies that (a) if a company does not have the intent to sell a debt security prior to recovery and (b) it is more likely than not that it will not have to sell the debt security prior to recovery, the security would not be considered other-than-temporarily impaired unless there is a credit loss. When an entity does not intend to sell the security, and it is more likely than not, the entity will not have to sell the security before recovery of its cost basis, it will recognize the credit component of an other-than-temporary impairment of a debt security in earnings and the remaining portion in other comprehensive income. For held to maturity debt securities, the amount of an other-than-temporary impairment recorded in other comprehensive income for the non-credit portion of a previous other-than-temporary impairment should be amortized prospectively over the remaining life of the security on the basis of the timing of future estimated cash flows of the security. For equity securities without a readily determinable market value, once a decline in value is determined to be other-than-temporary, the value of the equity security is reduced to fair value and a corresponding charge to earnings is recognized.

### **Allowance for Loan Losses**

QNB considers that the determination of the allowance for loan losses involves a higher degree of judgment and complexity than its other significant accounting policies. The allowance for loan losses is calculated with the objective of maintaining a level believed by management to be sufficient to absorb probable known and inherent losses in the outstanding loan portfolio. The allowance is reduced by actual credit losses and is increased by the provision for loan losses and recoveries of previous losses. The provisions for loan losses are charged to earnings to bring the total allowance for loan losses to a level considered necessary by management.

The allowance for loan losses is based on management's continual review and evaluation of the loan portfolio. The level of the allowance is determined by assigning specific reserves to individually identified problem credits and general reserves to all other loans. The portion of the allowance that is allocated to impaired loans is determined by estimating the inherent loss on each credit after giving consideration to the value of underlying collateral. The general reserves are based on the composition and risk characteristics of the loan portfolio, including the nature of the loan portfolio, credit concentration trends, delinquency and loss experience, as well as other qualitative factors such as current economic trends.

Management emphasizes loan quality and close monitoring of potential problem credits. Credit risk identification and review processes are utilized in order to assess and monitor the degree of risk in the loan portfolio. QNB's lending and credit administration staff are charged with reviewing the loan portfolio and identifying changes in the economy or in a borrower's circumstances which may affect the ability to repay debt or the value of pledged collateral. A loan classification and review system exists that identifies those loans with a higher than normal risk of collection. Each commercial loan is assigned a grade based upon an assessment of the borrower's financial capacity to service the debt and the presence and value of collateral for the loan. An independent loan review group tests risk assessments and evaluates the adequacy of the allowance for loan losses. Management meets monthly to review the credit quality of the loan portfolio and quarterly to review the allowance for loan losses.

In addition, various regulatory agencies, as an integral part of their examination process, periodically review QNB's allowance for loan losses. Such agencies may require QNB to recognize additions to the allowance based on their judgments about information available to them at the time of their examination. Management believes that it uses the best information available to make determinations about the adequacy of the allowance and that it has established its existing allowance for loan losses in accordance with GAAP. If circumstances differ substantially from the assumptions used in making determinations, future adjustments to the allowance for loan losses may be necessary and results of operations could be affected. Because future events affecting borrowers and collateral cannot be predicted with certainty, increases to the allowance may be necessary should the quality of any loans deteriorate as a result of the factors discussed above.

### **Foreclosed Assets**

Assets acquired through, or in lieu of, loan foreclosure are held for sale and are initially recorded at fair value less cost to sell at the date of foreclosure, establishing a new cost basis. Subsequent to foreclosure, valuations are periodically performed by management and the assets are carried at the lower of carrying amount or fair value less cost to sell. Revenue and expenses and changes in the valuation allowance are included in net expenses from foreclosed assets.

### **Stock-Based Compensation**

At December 31, 2019, QNB sponsored stock-based compensation plans, administered by a Board committee, under which both qualified and nonqualified stock options may be granted periodically to certain employees. QNB accounts for all awards granted under stock-based compensation plans in accordance with ASC 718, *Compensation – Stock Compensation*. Compensation cost has been measured using the fair value of an award on the grant date and is recognized over the service period, which is usually the vesting period. The fair value of each option is amortized into compensation expense on a straight-line basis between the grant date for the option and each vesting date. QNB estimates the fair value of stock options on the date of the grant using the Black-Scholes option pricing model. The model requires the use of numerous assumptions, many of which are highly subjective in nature.

### **Income Taxes**

QNB accounts for income taxes under the asset/liability method in accordance with income tax accounting guidance, ASC 740 – *Income Taxes*. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, as well as operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is established against deferred tax assets when, in the judgment of management, it is more likely than not that such deferred tax assets will not become available. Because the judgment about the level of future taxable income is dependent to a great extent on matters that may, at least in part, be beyond QNB's control, it is at least reasonably possible that management's judgment about the need for a valuation allowance for deferred taxes could change in the near term.

## **ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

The information required in response to this item is set forth in Item 7, above.

## **ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

The following audited financial statements are set forth in this Annual Report on Form 10-K on the following pages:

Report of Independent Registered Public Accounting Firm	Page 53
Consolidated Balance Sheets	Page 54
Consolidated Statements of Income	Page 55
Consolidated Statements of Comprehensive Income	Page 56
Consolidated Statements of Shareholders' Equity	Page 57
Consolidated Statements of Cash Flows	Page 58
Notes to Consolidated Financial Statements	Page 59

## Management's Report on Internal Control over Financial Reporting

March 13, 2020

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2019, in relation to criteria for effective internal control over financial reporting as described in "Internal Control Integrated Framework (2013)," issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this assessment, management concludes that, as of December 31, 2019, the Company's system of internal control over financial reporting is effective and meets the criteria of the "Internal Control Integrated Framework (2013)."

Baker Tilly Virchow Krause, LLP, an independent registered public accounting firm, has audited the Company's consolidated financial statements as of and for the year ended December 31, 2019 and the effectiveness of the Company's internal control over financial reporting as of December 31, 2019, as stated in their report, which are included herein.

/s/ David W. Freeman

David W. Freeman

Chief Executive Officer

/s/ Janice McCracken Erkes

Janice McCracken Erkes

Chief Financial Officer

## Report of Independent Registered Public Accounting Firm

To the shareholders and the Board of Directors of QNB Corp.:

### Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of QNB Corp. and subsidiary (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows, for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework: (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework: (2013)* issued by COSO.

### Basis for Opinions

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

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

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

### Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Baker Tilly Virchow Krause, LLP

We have served as the Company's auditor since 2007.

Allentown, Pennsylvania

March 13, 2020

## CONSOLIDATED BALANCE SHEETS

December 31,	(in thousands, except share data)	
	2019	2018
<b>Assets</b>		
Cash and due from banks	\$ 12,398	\$ 12,888
Interest-bearing deposits in banks	5,210	570
Total cash and cash equivalents	17,608	13,458
Investment securities:		
Available-for-sale (amortized cost \$349,385 and \$353,249)	349,710	344,221
Equity securities (cost of \$9,053 and \$10,079)	9,164	9,421
Restricted investment in bank stocks	1,073	797
Loans held-for-sale	977	—
Loans receivable	820,616	785,448
Allowance for loan losses	(9,887)	(8,834)
Net loans	810,729	776,614
Bank-owned life insurance	11,490	11,192
Premises and equipment, net	15,608	9,918
Accrued interest receivable	2,828	2,852
Net deferred tax assets	1,441	3,724
Other assets	4,395	3,255
Total assets	\$ 1,225,023	\$ 1,175,452
<b>Liabilities</b>		
Deposits		
Demand, non-interest bearing	\$ 146,270	\$ 128,615
Interest-bearing demand	332,918	304,652
Money market	75,634	78,781
Savings	247,462	279,762
Time	120,917	117,569
Time of \$100 or more	114,659	106,219
Total deposits	1,037,860	1,015,598
Short-term borrowings	55,931	50,872
Accrued interest payable	909	449
Other liabilities	9,606	4,185
Total liabilities	1,104,306	1,071,104
<b>Shareholders' Equity</b>		
Common stock, par value \$0.625 per share; authorized 10,000,000 shares; 3,684,336 shares and 3,648,649 shares issued; 3,519,767 and 3,484,080 shares outstanding	2,303	2,280
Surplus	21,261	20,041
Retained earnings	99,372	91,635
Accumulated other comprehensive gain (loss), net of tax	257	(7,132)
Treasury stock, at cost; 164,569 shares	(2,476)	(2,476)
Total shareholders' equity	120,717	104,348
Total liabilities and shareholders' equity	\$ 1,225,023	\$ 1,175,452

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

## CONSOLIDATED STATEMENTS OF INCOME

Year ended December 31,	(in thousands, except per share data)		
	2019	2018	2017
<b>Interest income</b>			
Interest and fees on loans	\$ 38,187	\$ 34,939	\$ 29,740
Interest and dividends on investment securities (AFS & Equity):			
Taxable	6,568	6,280	6,270
Tax-exempt	1,529	1,845	1,957
Interest on trading securities	—	—	45
Interest on interest-bearing balances and other interest income	134	136	90
<b>Total interest income</b>	<b>46,418</b>	<b>43,200</b>	<b>38,102</b>
<b>Interest expense</b>			
Interest on deposits			
Interest-bearing demand	3,013	2,226	1,137
Money market	815	329	249
Savings	1,605	1,657	1,156
Time	1,908	1,578	1,512
Time of \$100 or more	2,083	1,723	1,373
Interest on short-term borrowings	700	672	253
<b>Total interest expense</b>	<b>10,124</b>	<b>8,185</b>	<b>5,680</b>
<b>Net interest income</b>	<b>36,294</b>	<b>35,015</b>	<b>32,422</b>
Provision for loan losses	1,300	1,130	1,400
<b>Net interest income after provision for loan losses</b>	<b>34,994</b>	<b>33,885</b>	<b>31,022</b>
<b>Non-interest income</b>			
Total other-than-temporary impairment loss on investment securities	—	—	(80)
Less: Portion of loss recognized in other comprehensive income (before taxes)	—	—	—
Net other-than temporary impairment losses on investment securities	—	—	(80)
Net unrealized gain (loss) on investment equity securities	770	(336)	—
Net gain (loss) on sale of investment securities	1,755	(76)	1,580
Net gain (loss) on investment securities	2,525	(412)	1,500
Net gain on trading activities	—	—	27
Fees for services to customers	1,691	1,699	1,668
ATM and debit card	2,070	1,895	1,749
Retail brokerage and advisory	560	370	436
Bank-owned life insurance	292	291	345
Merchant	348	326	345
Net gain on sale of loans	195	105	375
Other	636	618	442
<b>Total non-interest income</b>	<b>8,317</b>	<b>4,892</b>	<b>6,887</b>
<b>Non-interest expense</b>			
Salaries and employee benefits	16,086	14,411	13,121
Net occupancy	2,040	1,872	1,789
Furniture and equipment	2,496	2,165	1,859
Marketing	1,042	927	914
Third party services	1,853	1,889	1,608
Telephone, postage and supplies	720	685	804
State taxes	760	727	687
FDIC insurance premiums	269	624	577
Other	2,838	2,585	2,361
<b>Total non-interest expense</b>	<b>28,104</b>	<b>25,885</b>	<b>23,720</b>
<b>Income before income taxes</b>	<b>15,207</b>	<b>12,892</b>	<b>14,189</b>
Provision for income taxes	2,850	1,557	5,900
<b>Net income</b>	<b>\$ 12,357</b>	<b>\$ 11,335</b>	<b>\$ 8,289</b>
<b>Earnings per share - basic</b>	<b>\$ 3.53</b>	<b>\$ 3.27</b>	<b>\$ 2.42</b>
<b>Earnings per share - diluted</b>	<b>\$ 3.53</b>	<b>\$ 3.25</b>	<b>\$ 2.41</b>
<b>Cash dividends per share</b>	<b>\$ 1.32</b>	<b>\$ 1.28</b>	<b>\$ 1.24</b>

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

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Year ended December 31,	(in thousands)								
	2019			2018			2017		
	Before tax amount	Tax expense (benefit)	Net of tax amount	Before tax amount	Tax expense (benefit)	Net of tax amount	Before tax amount	Tax expense (benefit)	Net of tax amount
Net income	\$ 15,207	\$ 2,850	\$ 12,357	\$ 12,892	\$ 1,557	\$ 11,335	\$ 14,189	\$ 5,900	\$ 8,289
Other comprehensive income gain (loss):									
Net unrealized holding gains (losses) on securities:									
Unrealized holding gains (losses) arising during the period	9,327	1,959	7,368	(3,156)	(663)	(2,493)	1,002	341	661
Reclassification adjustment for losses (gains) included in net income	26	5	21	(3)	(1)	(2)	(1,500)	(510)	(990)
	9,353	1,964	7,389	(3,159)	(664)	(2,495)	(498)	(169)	(329)
Total comprehensive income	<u>\$ 24,560</u>	<u>\$ 4,814</u>	<u>\$ 19,746</u>	<u>\$ 9,733</u>	<u>\$ 893</u>	<u>\$ 8,840</u>	<u>\$ 13,691</u>	<u>\$ 5,731</u>	<u>\$ 7,960</u>

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



## CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(in thousands, except share and per share data)	Number of Shares Outstanding	Common Stock	Surplus	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total
Balance, December 31, 2016	3,411,701	\$ 2,235	\$ 17,418	\$ 80,147	\$ (3,757)	\$ (2,476)	\$ 93,567
Net income		—	—	8,289	—	—	8,289
Other comprehensive loss, net of tax		—	—	—	(329)	—	(329)
Cash dividends declared (\$1.24 per share)		—	—	(4,253)	—	—	(4,253)
Stock issued in connection with dividend reinvestment and stock purchase plan	25,048	16	957	—	—	—	973
Stock issued for employee stock purchase plan	2,660	2	89	—	—	—	91
Stock issued for options exercised	8,699	5	125	—	—	—	130
Stock-based compensation expense		—	102	—	—	—	102
Balance, December 31, 2017	<u>3,448,108</u>	<u>\$ 2,258</u>	<u>\$ 18,691</u>	<u>\$ 84,183</u>	<u>\$ (4,086)</u>	<u>\$ (2,476)</u>	<u>\$ 98,570</u>
Net income		—	—	11,335	—	—	11,335
Other comprehensive loss, net of tax		—	—	—	(2,495)	—	(2,495)
Cash dividends declared (\$1.28 per share)		—	—	(4,434)	—	—	(4,434)
Equity securities fair value reclassification <sup>(1)</sup>		—	—	(254)	254	—	—
ASU 2018-02 stranded tax reclassification <sup>(2)</sup>		—	—	805	(805)	—	—
Stock issued in connection with dividend reinvestment and stock purchase plan	23,302	14	965	—	—	—	979
Stock issued for employee stock purchase plan	2,963	2	115	—	—	—	117
Stock issued for options exercised	9,707	6	153	—	—	—	159
Stock-based compensation expense		—	117	—	—	—	117
Balance, December 31, 2018	<u>3,484,080</u>	<u>\$ 2,280</u>	<u>\$ 20,041</u>	<u>\$ 91,635</u>	<u>\$ (7,132)</u>	<u>\$ (2,476)</u>	<u>\$ 104,348</u>
Net income		—	—	12,357	—	—	12,357
Other comprehensive loss, net of tax		—	—	—	7,389	—	7,389
Cash dividends declared (\$1.32 per share)		—	—	(4,620)	—	—	(4,620)
Stock issued in connection with dividend reinvestment and stock purchase plan	24,264	16	847	—	—	—	863
Stock issued for employee stock purchase plan	3,310	2	109	—	—	—	111
Stock issued for options exercised	8,113	5	146	—	—	—	151
Stock-based compensation expense		—	118	—	—	—	118
Balance, December 31, 2019	<u>3,519,767</u>	<u>\$ 2,303</u>	<u>\$ 21,261</u>	<u>\$ 99,372</u>	<u>\$ 257</u>	<u>\$ (2,476)</u>	<u>\$ 120,717</u>

<sup>(1)</sup> Refer to Note 1, ASU 2016-01

<sup>(2)</sup> Refer to Note 1, ASU 2018-02

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

## CONSOLIDATED STATEMENTS OF CASH FLOWS

Year ended December 31,	(in thousands)		
	2019	2018	2017
<b>Operating Activities</b>			
Net income	\$ 12,357	\$ 11,335	\$ 8,289
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	1,832	990	821
Provision for loan losses	1,300	1,130	1,400
Net (gain) loss on investment debt and equity securities	(1,755)	76	(1,500)
Net unrealized (gain) loss on equity securities	(770)	336	—
Net loss (gain) on sale of other real estate owned, repossessed assets and premises and equipment	(51)	(1)	(1)
Net gain on sale of loans	(195)	(105)	(276)
Gain on sale of loan held for investment	—	—	(99)
Proceeds from sales of residential mortgages held-for-sale	7,324	4,478	9,041
Origination of residential mortgages held-for-sale	(8,106)	(4,373)	(7,976)
Income on bank-owned life insurance	(292)	(291)	(345)
Stock-based compensation expense	118	117	102
Net decrease in trading securities	—	—	3,596
Deferred income tax provision	319	258	2,322
Net decrease in income taxes payable	(29)	(230)	(154)
Net decrease (increase) in accrued interest receivable	24	693	(417)
Amortization of mortgage servicing rights and change in valuation allowance	65	65	82
Net amortization of premiums and discounts on investment securities	1,501	1,434	1,694
Net increase in accrued interest payable	460	65	49
Operating lease payments	(583)	—	—
Decrease (increase) in other assets	423	73	(887)
(Decrease) increase in other liabilities	(44)	601	421
Net cash provided by operating activities	13,898	16,651	16,162
<b>Investing Activities</b>			
Proceeds from payments, maturities and calls of investment debt securities available-for-sale	68,174	48,074	52,994
Proceeds from the sale of investment securities available-for-sale	47,851	4,159	28,087
Purchases of investment securities available-for-sale	(113,688)	(26,473)	(75,267)
Proceeds from the sale of equity securities	11,838	4,902	14,422
Purchases of equity securities	(9,030)	(9,763)	(9,998)
Proceeds from redemption of investment in restricted bank stock	9,675	10,320	6,318
Purchase of restricted bank stock	(9,951)	(9,616)	(6,802)
Net increase in loans	(35,415)	(52,302)	(101,157)
Net purchases of premises and equipment	(3,086)	(2,413)	(634)
Proceeds from sale of loans held for investment	—	—	99
Redemption of bank-owned life insurance	—	—	754
Proceeds from sales of other real estate owned and repossessed assets	58	1	2
Net cash used in investing activities	(33,574)	(33,111)	(91,182)
<b>Financing Activities</b>			
Net increase (decrease) in non-interest bearing deposits	17,655	(597)	10,202
Net increase in interest-bearing deposits	4,607	22,247	70,391
Net (decrease) increase in short-term borrowings	5,059	(4,884)	3,096
Cash dividends paid, net of reinvestment	(4,086)	(3,863)	(3,731)
Proceeds from issuance of common stock	591	684	672
Net cash provided by financing activities	23,826	13,587	80,630
Increase (decrease) in cash and cash equivalents	4,150	(2,873)	5,610
Cash and cash equivalents at beginning of year	13,458	16,331	10,721
Cash and cash equivalents at end of period	\$ 17,608	\$ 13,458	\$ 16,331
<b>Supplemental Cash Flow Disclosures</b>			
Interest paid	\$ 9,664	\$ 8,120	\$ 5,631
Income taxes paid	2,560	1,529	3,731
Non-cash transactions:			
Right-of-use assets obtained in exchange for new operating lease liabilities	2,407	—	—

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

## QNB CORP. AND SUBSIDIARY

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 1 - Summary of Significant Accounting Policies

##### Business

QNB Corp. (the “Company”), through its wholly-owned subsidiary, QNB Bank (the “Bank”), has been serving the residents and businesses of Bucks, Lehigh, and Montgomery counties in Pennsylvania since 1877. The Bank is a locally managed community bank that provides a full range of commercial, retail banking and retail brokerage services. The Bank encounters vigorous competition for market share in the communities it serves from bank holding companies, other community banks, thrift institutions, credit unions and other non-bank financial organizations such as mutual fund companies, insurance companies and brokerage companies. The Company manages its business as a single operating segment.

The Bank is a Pennsylvania chartered commercial bank. The Company and the Bank are subject to regulations of certain state and Federal agencies. These regulatory agencies periodically examine the Company and the Bank for adherence to laws and regulations.

##### Basis of Presentation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary, the Bank. The consolidated entity is referred to herein as “QNB”. All significant inter-company accounts and transactions have been eliminated in the consolidated financial statements.

Tabular information, other than share and per share data, is presented in thousands of dollars. Certain prior period amounts have been reclassified to conform with the current year’s presentation.

##### Use of Estimates

These statements are prepared in accordance with U.S. generally accepted accounting principles (“GAAP”) and predominant practices within the banking industry. The preparation of these consolidated financial statements requires QNB to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. QNB evaluates estimates on an on-going basis. Material estimates that are particularly susceptible to significant change in the near term relate to the determination of the allowance for loan losses, the determination of the valuation of other real estate owned, the fair value of financial instruments, other-than-temporary impairment of investment securities, the determination of impairment of restricted bank stock and the valuation of deferred tax assets and income taxes. QNB bases its estimates on historical experience and various other factors and assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

##### Significant Group Concentrations of Credit Risk

Most of the Company’s activities are with customers located within Bucks, Montgomery and Lehigh Counties in southeastern Pennsylvania. Note 4 discusses the types of investment securities in which the Company invests. Note 5 discusses the types of lending in which the Company engages. The Company does not have any significant concentrations to any one industry or customer. Although the Company has a diversified loan portfolio, its debtors’ ability to honor their contracts is influenced by the region’s economy.

##### Cash and Cash Equivalents

For purposes of the statement of cash flows, cash and cash equivalents consist of cash on hand, cash items in process of collection, amounts due from banks, interest-bearing deposits in the Federal Reserve Bank and other banks and Federal funds sold. QNB maintains a portion of its interest-bearing deposits at various commercial financial institutions. At times, the balances exceed the FDIC insured limits.

##### Trading Securities

The Company may engage in trading activities for its own account. Interest and dividends are included in interest income. Debt securities that are bought and held principally for the purpose of selling in the near term are classified as trading securities and reported at fair value, with unrealized gains and losses included in earnings.

## **Investment Securities**

Investment debt securities that QNB has the positive intent and ability to hold to maturity are classified as held-to-maturity securities and reported at amortized cost. Interest is included in interest income. Debt securities not classified as either held-to-maturity securities or trading securities are classified as available-for-sale debt securities and reported at fair value, with unrealized gains and losses, net of tax, excluded from earnings and reported in other comprehensive income or loss, a separate component of shareholders' equity. Management determines the appropriate classification of securities at the time of purchase.

Available-for-sale debt securities include securities that management intends to use as part of its asset/liability management strategy and that may be sold in response to changes in credit ratings, changes in market interest rates and related changes in the securities' prepayment risk or to meet liquidity needs.

Premiums and discounts on debt securities are recognized in interest income using a constant yield method. Gains and losses on sales of available-for-sale securities are recorded on the trade date and are computed on the specific identification method and included in non-interest income.

Equity investments with readily determinable fair values are measured at fair value. Beginning January 1, 2018, the changes in fair value are recognized in net income. Dividends are included in interest income.

## **Other-than-Temporary Impairment of Investment Securities**

Securities are evaluated periodically to determine whether a decline in their value is other-than-temporary. Management utilizes criteria such as the magnitude and duration of the decline, in addition to the reasons underlying the decline, to determine whether the loss in value is other-than-temporary. The term "other-than-temporary" is not intended to indicate that the decline is permanent, but indicates that the prospects for a near-term recovery of value is not necessarily favorable, or that there is a lack of evidence to support realizable value equal to or greater than carrying value of the investment. For equity securities without a readily determinable market value, once a decline in value is determined to be other-than-temporary, the value of the equity security is reduced to fair value and a corresponding charge to earnings is recognized. Temporary improvements in the fair value on equity securities with an OTTI change would not be recognized.

The Company follows the accounting guidance in Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 320-10 as it relates to the recognition and presentation of other-than-temporary impairment ("OTTI"). This accounting guidance specifies that (a) if a company does not have the intent to sell a debt security prior to recovery and (b) it is more likely than not that it will not have to sell the debt security prior to recovery, the security would not be considered other-than-temporarily impaired unless there is a credit loss. When an entity does not intend to sell the security, and it is more likely than not the entity will not have to sell the security before recovery of its cost basis, it will recognize the credit component of an other-than-temporary impairment of a debt security in earnings and the remaining portion in other comprehensive income. For held to maturity debt securities, the amount of an other-than-temporary impairment recorded in other comprehensive income for the non-credit portion of a previous other-than-temporary impairment would be amortized prospectively over the remaining life of the security based on the timing of future estimated cash flows of the security.

## **Restricted Investment in Stock**

Restricted bank stock is comprised of restricted stock of the Federal Home Loan Bank of Pittsburgh ("FHLB") in the amount of \$1,061,000, the Atlantic Community Bankers Bank in the amount of \$12,000 and VISA Class B stock with a carrying cost of \$0 at December 31, 2019. Federal law requires a member institution of the FHLB to hold stock of its district bank according to a predetermined formula. These restricted securities are carried at cost. The Bank owns 6,502 shares of Visa Class B stock, which was necessary to participate in Visa services in support of the Bank's credit card, debit card, and related payment programs (permissible activities under banking regulations) as a member institution. Following the resolution of Visa's covered litigation, shares of Visa's Class B stock will be converted to Visa Class A shares using a conversion factor (1.6298 as of December 31, 2019), which is periodically adjusted to reflect VISA's ongoing litigation costs. There is a very limited market for this stock, as only current owners of Class B shares are permitted to transact in Class B. Due to the lack of orderly trades and public information of such trades, Visa Class B does not have a readily determinable fair value. These restricted investments are carried at cost and evaluated for OTTI periodically. As of December 31, 2019, there was no OTTI associated with these shares.

## **Loans**

Loans that management has the intent and ability to hold for the foreseeable future or until maturity or pay-off are stated at the principal amount outstanding, net of deferred loan fees and costs. Interest income is accrued on the principal amount outstanding.

Loan origination and commitment fees and related direct costs are deferred and amortized to income over the term of the respective loan and loan commitment period as a yield adjustment.

Loans held-for-sale consist of residential mortgage loans and are carried at the lower of aggregate cost or fair value. Net unrealized losses, if any, are recognized through a valuation allowance charged to income. Gains and losses on residential mortgages held-for-sale are included in non-interest income.

### **Non-Performing Assets**

Non-performing assets are comprised of accruing loans past due 90 days or more, non-accrual loans and investment securities, restructured loans, other real estate owned and repossessed assets. Non-accrual loans and investment securities are those on which the accrual of interest has ceased. Loans are placed on non-accrual status immediately if, in the opinion of management, collection is doubtful, or when principal or interest is past due 90 days or more and collateral is insufficient to cover principal and interest. Interest accrued, but not collected at the date a loan is placed on non-accrual status, is reversed and charged against interest income. Subsequent cash receipts are applied either to the outstanding principal or recorded as interest income, depending on management's assessment of the ultimate collectability of principal and interest. Loans are returned to an accrual status when the borrower's ability to make periodic principal and interest payments has returned to normal (i.e. brought current with respect to principal or interest or restructured) and the paying capacity of the borrower and/or the underlying collateral is deemed sufficient to cover principal and interest.

From time to time, QNB may extend, restructure, or otherwise modify the terms of existing loans, on a case-by-case basis, to remain competitive and retain certain customers, as well as assist other customers that may be experiencing financial difficulties. A loan is considered to be a troubled debt restructuring ("TDR") loan when the Company grants a concession to the borrower because of the borrower's financial condition that it would not otherwise consider. Such concessions may include the reduction of interest rates, forgiveness of principal or interest, or other modifications of interest rates to less than the current market rate for new obligations with similar risk. Loans classified as TDRs are considered non-performing and are also designated as impaired.

Accounting for impairment in the performance of a loan is required when it is probable that all amounts, including both principal and interest, will not be collected in accordance with the loan agreement. Impaired loans are measured based on the present value of expected future cash flows discounted at the loan's effective interest rate or, at the loan's observable market price or the fair value of the collateral if the loans are collateral dependent. Impairment criteria are applied to the loan portfolio exclusive of smaller homogeneous loans such as residential mortgage and consumer loans which are evaluated collectively for impairment.

Loans are fully charged-off or charged down to net realizable value (fair value of collateral less estimated costs to sell) when deemed uncollectible due to bankruptcy or other factors, or when they reach a defined number of days past due based on loan product, industry practice, terms and other factors.

Loans are considered past due when contractually required principal or interest payments have not been made on the due dates.

### **Allowance for Loan Losses**

QNB maintains an allowance for loan losses, which is intended to absorb probable known and inherent losses in the outstanding loan portfolio. The allowance is reduced by actual credit losses and is increased by the provision for loan losses and recoveries of previous losses. The provisions for loan losses are charged to earnings to bring the total allowance for loan losses to a level considered necessary by management.

The allowance for loan losses is based on management's continuing review and evaluation of the loan portfolio. The level of the allowance is determined by assigning specific reserves to individually identified problem credits and general reserves to all other loans. For such loans that are also classified as impaired, an allowance is established when the discounted cash flows (or collateral value) of the impaired loan is lower than the carrying value of that loan. The portion of the allowance that is allocated to internally criticized and non-accrual loans is determined by estimating the inherent loss on each credit after giving consideration to the value of underlying collateral. The general component covers pools of loans by loan class including commercial loans not considered impaired, as well as smaller balance homogeneous loans, such as residential real estate, home equity and other consumer loans. These pools of loans are evaluated for loss exposure based upon historical loss rates. These loss rates are based on a three-year history of charge-offs and are more heavily weighted for recent experience for each of these categories of loans, adjusted for qualitative factors. These qualitative risk factors include:

- Lending policies and procedures, including underwriting standards and collection, charge-off and recovery practices.

- External factor effects, such as legal and regulatory requirements.
- National, regional, and local economic and business conditions as well as the condition of various market segments, including the value of underlying collateral for collateral dependent loans.
- Nature and volume of the portfolio including growth.
- Experience, ability, and depth of lending management and staff.
- Volume and severity of past due, classified and nonaccrual loans.
- Quality of the Company's loan review system, and the degree of oversight by the Company's Board of Directors.
- Existence and effect of any concentrations of credit and changes in the level of such concentrations.

Each factor is assigned a value to reflect improving, stable or declining conditions based on management's best judgment using relevant information available at the time of the evaluation.

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 methodologies for estimating specific and general losses in the portfolio.

Management emphasizes loan quality and close monitoring of potential problem credits. Credit risk identification and review processes are utilized in order to assess and monitor the degree of risk in the loan portfolio. QNB's lending and credit administration staff are charged with reviewing the loan portfolio and identifying changes in the economy or in a borrower's circumstances which may affect the ability to repay debt or the value of pledged collateral. A loan classification and review system exists that identifies those loans with a higher than normal risk of collection. Each commercial loan is assigned a grade based upon an assessment of the borrower's financial capacity to service the debt and the presence and value of collateral for the loan. An independent loan review group tests risk assessments and evaluates the adequacy of the allowance for loan losses. Management meets monthly to review the credit quality of the loan portfolio and quarterly to review the allowance for loan losses.

In addition, various regulatory agencies, as an integral part of their examination process, periodically review QNB's allowance for loan losses. Such agencies may require QNB to recognize additions to the allowance based on their judgments using information available to them at the time of their examination.

Management believes that it uses the best information available to make determinations about the adequacy of the allowance and that it has established its existing allowance for loan losses in accordance with GAAP. If circumstances differ substantially from the assumptions used in making determinations, future adjustments to the allowance for loan losses may be necessary and results of operations could be affected. Because future events affecting borrowers and collateral cannot be predicted with certainty, there can be no assurance that increases to the allowance will not be necessary should the quality of any loans deteriorate as a result of the factors discussed above.

### **Transfers of Financial Assets**

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

### **Servicing Assets**

Servicing assets are recognized as separate assets when rights are acquired through the sale of financial assets. When mortgage loans are sold, a portion of the cost of originating the loan is allocated to the servicing rights based on relative fair value. Fair value is based on market prices for comparable mortgage servicing contracts, when available, or alternatively, is based on a valuation model that calculates the present value of estimated future net servicing income. The Company subsequently measures servicing rights using the amortization method where servicing rights are amortized in proportion to and over the period of estimated net servicing income. On a quarterly basis, an independent third party determines the fair value of QNB's servicing assets. These assets are evaluated for impairment based upon the fair value of the rights as compared to amortized cost. Impairment is determined by stratifying rights into tranches based on predominant characteristics, such as interest rate, loan type and investor type. Impairment is recognized through a valuation allowance for an individual tranche, to the extent that fair value is less than the capitalized amount for the tranches. If the Company later determines that all or a portion of the impairment no longer exists for a particular tranche, a reduction of the valuation allowance may be recorded as an increase to income. Capitalized servicing rights are reported in other assets and are amortized into

other non-interest income in proportion to, and over the period of, the estimated future net servicing income of the underlying financial assets.

Servicing fee income is recorded for fees earned for servicing loans. The fees are based on a contractual percentage of the outstanding principal, or a fixed amount per loan and are recorded as other non-interest income when earned and netted against the amortization of mortgage servicing rights.

### **Foreclosed Assets**

Assets acquired through, or in lieu of, loan foreclosure are held for sale and are initially recorded at fair value less cost to sell at the date of foreclosure, establishing a new cost basis. Subsequent to foreclosure, valuations are periodically performed by management and the assets are carried at the lower of carrying amount or fair value less cost to sell. Revenue and expenses from operations and changes in the valuation allowance are included in net expenses from foreclosed assets. At both December 31, 2019 and 2018, the Company had no foreclosed assets.

### **Premises and Equipment**

Premises and equipment are stated at cost, less accumulated depreciation and amortization. Depreciation and amortization are calculated principally on an accelerated or straight-line basis over the estimated useful lives of the assets, or the shorter of the estimated useful life or lease term for leasehold improvements, as follows:

Buildings	10 to 39 years
Furniture and equipment	3 to 15 years
Leasehold improvements	5 to 30 years

Expenditures for maintenance and repairs are charged to operations as incurred. Gains or losses upon disposition are reflected in earnings as realized.

The “Premises and equipment, net” category Consolidated Balance Sheets also includes the right-of-use assets associated with operating leases. The discount rates used in determining the initial value of the right of use assets are based on the FHLB Amortizing Fixed Loan Rate for the term of each lease. QNB typically enters into lease agreements with an initial term of 5 to 10 years and subsequent additional optional terms in increments of 5 years. The lease agreements also contain termination options. None of the leases contain purchase options and none transfer the ownership of the leased asset. QNB has renewed one operating lease and entered into two new operating leases during 2019. Operating lease liabilities are included with “Other liabilities” on the Consolidated Balance Sheets. All operating lease costs are included in non-interest expense within “Net occupancy” on the Consolidated Statements of Income.

### **Bank-Owned Life Insurance**

The Bank invests in bank-owned life insurance (“BOLI”) as a source of funding for employee benefit expenses. BOLI involves the purchasing of life insurance by the Bank on a select group of employees. The Bank is the owner and beneficiary of the policies. Income from the increase in cash surrender value of the policies as well as the receipt of death benefits is included in non-interest income on the consolidated statement of income. The BOLI policies are an asset that can be liquidated, if necessary, with associated tax costs. However, QNB intends to hold these policies and, accordingly, has not provided for deferred income taxes on the earnings from the increase in cash surrender value.

The Company follows the accounting guidance for postretirement benefit aspects of endorsement split-dollar life insurance arrangements which applies to life insurance arrangements that provide an employee with a specified benefit that is not limited to the employee’s active service period, including certain bank-owned life insurance policies. It requires an employer to recognize a liability and related compensation costs for future benefits that extend to postretirement periods. The expense recorded during 2019, 2018 and 2017 was approximately \$59,000, \$53,000 and \$23,000, respectively, and is included in non-interest expense under salaries and benefits expense. The decrease in 2017 is related to a death claim, reducing the post-retirement liability.

## Stock-Based Compensation

At December 31, 2019, QNB sponsored stock-based compensation plans, administered by a Board committee, under which both qualified and non-qualified stock options may be granted periodically to certain employees. QNB accounts for all awards granted under stock-based compensation plans in accordance with FASB ASC 718, *Compensation - Stock Compensation*. Compensation cost has been measured using the fair value of an award on the grant date and is recognized over the service period, which is usually the vesting period.

Stock-based compensation expense was approximately \$118,000, \$117,000 and \$102,000 for the years ended December 31, 2019, 2018 and 2017, respectively. There were \$7,000, \$10,000 and \$19,000 in tax benefits recognized related to the nonqualified compensation and disqualifying dispositions for the years ended December 31, 2019, 2018 and 2017, respectively.

The fair value of each option is amortized into compensation expense on a straight-line basis between the grant date for the option and each vesting date. QNB estimated the fair value of stock options on the date of the grant using the Black-Scholes option pricing model. The model requires the use of numerous assumptions, many of which are highly subjective in nature. The following assumptions were used in the option pricing model in determining the fair value of options granted during the periods presented.

Year ended December 31,	2019	2018	2017
Risk free interest rate	2.52%	2.15%	1.48%
Dividend yield	3.36%	1.24%	3.19%
Volatility	16.44%	18.12%	17.90%
Expected life (years)	4.2	4.2	4.2

The weighted average fair value per share of options granted during 2019, 2018 and 2017 was \$3.96, \$5.29 and \$3.88, respectively. The risk-free interest rate was selected based upon yields of U.S. Treasury issues with a term equal to the expected life of the option being valued. Historical information was the primary basis for the selection of the expected dividend yield, expected volatility and expected lives of the options.

## Income Taxes

QNB accounts for income taxes under the asset/liability method in accordance with income tax accounting guidance, ASC 740 - *Income Taxes*. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, as well as operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is established against deferred tax assets when, in the judgment of management, it is more likely than not that such deferred tax assets will not become available. Because the judgment about the level of future taxable income is dependent to a great extent on matters that may, at least in part, be beyond QNB's control, it is at least reasonably possible that management's judgment about the need for a valuation allowance for deferred taxes could change in the near term.

In connection with the accounting guidance related to accounting for uncertainty in income taxes, which sets out a consistent framework to determine the appropriate level of tax reserves to maintain for uncertain tax positions, QNB has evaluated its tax positions as of December 31, 2019. A tax position is recognized as a benefit only if it is "more likely than not" that the tax position would be sustained in a tax examination, with a tax examination being presumed to occur. The amount recognized is the largest amount of tax benefit that has more than a 50 percent likelihood of being realized on examination. For tax positions not meeting the "more likely than not" test, no tax benefit is recorded. Under the "more-likely-than-not" threshold guidelines, QNB believes no significant uncertain tax positions exist, either individually or in the aggregate, that would give rise to the non-recognition of an existing tax benefit. As of December 31, 2019, QNB had no material unrecognized tax benefits or accrued interest and \$2,000 in tax penalties. QNB's policy is to account for interest as a component of interest expense and penalties as a component of other expense. The Company and its subsidiary are subject to U.S. Federal income tax as well as income tax of the Commonwealth of Pennsylvania and the State of New Jersey. Tax years from 2016 to date remain subject to examination by the tax authorities.

## Treasury Stock

Common stock shares repurchased are recorded as treasury stock at cost.



## **Earnings Per Share**

Basic earnings per share excludes any dilutive effects of options and is computed by dividing net income by the weighted average number of common shares outstanding during the period. Diluted earnings per share gives effect to all dilutive potential common shares that were outstanding during the period. Potential common shares that may be issued by the Company relate solely to outstanding stock options and are determined using the treasury stock method.

Treasury shares are not deemed outstanding for earnings per share calculations.

## **Comprehensive Income (Loss)**

Comprehensive income (loss) is defined as the change in equity of a business entity during a period due to transactions and other events and circumstances, excluding those resulting from investments by and distributions to owners. Comprehensive income (loss) consists of net income and other comprehensive income (loss). For QNB, the primary component of other comprehensive income (loss) is the unrealized holding gains or losses on available-for-sale investment securities and unrealized losses on available-for-sale investment securities related to factors other than credit on debt securities.

## **Advertising Costs**

Advertising costs are recorded in the period they are incurred within operating expenses in non-interest expense in the consolidated statements of income.

## **Financial Instruments with Off-Balance-Sheet Risk**

The Company's exposure to credit loss in the event of non-performance by the other party to the financial instrument for commitments to extend credit and standby letters of credit is represented by the contractual notional amount of these instruments. The Company uses the same credit policies in making commitments and contractual obligations as it does for on-balance-sheet instruments. The Company reflects its estimate of credit risk for these instruments in other liabilities on the consolidated balance sheet with the corresponding expense recorded in other operating expenses in the consolidated statement of income.

## **Subsequent Events**

QNB has evaluated events and transactions occurring subsequent to the balance sheet date of December 31, 2019 through the date the consolidated financial statements are being issued for items that should potentially be recognized or disclosed in these consolidated financial statements.

## **Recent Accounting Pronouncements**

On June 16, 2016, the FASB issued ASU No. 2016-13, *Financial Instruments—Credit Losses (Topic 326)* (CECL). The new guidance requires organizations to measure all expected credit losses for financial instruments held at the reporting date based on historical experience, current conditions and reasonable and supportable forecasts.

To that end, the new guidance:

- Eliminates the probable initial recognition threshold in current U.S. GAAP and, instead, reflects an organization's current estimate of all expected credit losses over the contractual term of its financial assets
- Broadens the information an entity can consider when measuring credit losses to include forward-looking information
- Increases usefulness of the financial statements by requiring timely inclusion of forecasted information in forming expectations of credit losses
- Increases comparability of purchased financial assets with credit deterioration (PCD assets) with other purchased assets that do not have credit deterioration as well as originated assets because credit losses that are expected will be recorded through an allowance for credit losses for all assets
- Increases users' understanding of underwriting standards and credit quality trends by requiring additional information about credit quality indicators by year of origination (vintage)
- For available-for-sale debt securities, aligns the income statement recognition of credit losses with the reporting period in which changes occur by recording credit losses (and subsequent changes in credit losses) through an allowance rather than a write down

The new guidance affects organizations that hold financial assets and net investments in leases that are not accounted for at fair value with changes in fair value reported in net income. The new guidance affects loans, debt securities, trade receivables, net investments in leases, off-balance-sheet credit exposures, reinsurance receivables, and any other financial assets not excluded from the scope that have the contractual right to receive cash.

On October 16, 2019, FASB adopted its August 15, 2019 proposal to delay the effective dates for certain smaller reporting companies for the implementation CECL. For public business entities that are U.S. Securities and Exchange Commission (SEC) filers, the new guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019, except for smaller reporting companies, whose effective date is effective for fiscal years, and interim periods with those fiscal years, beginning after December 15, 2022. Early application will be permitted for all organizations for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. QNB continues to evaluate the impact of this new standard on its consolidated financial statements and currently anticipates a material change to its allowance for loan losses.

On August 28, 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework — Changes to the Disclosure Requirements for Fair Value Measurement. This ASU changes the fair value measurement disclosure requirements of ASC 820. The amendments in this ASU are the result of a broader disclosure project called FASB Concepts Statement, Conceptual Framework for Financial Reporting — Chapter 8: Notes to Financial Statements, which the FASB finalized on August 28, 2018. The FASB used the guidance in the Concepts Statement to improve the effectiveness of ASC 820's disclosure requirements. New disclosure requirements include: 1) Changes in unrealized gains or losses included in other comprehensive income (OCI) for recurring Level 3 fair value measurements held at the end of the reporting period; and 2) Explicit requirement to disclose the range and weighted average used to develop significant unobservable inputs for Level 3 fair value measurements. Disclosures eliminated include: 1) Amount of and reasons for transfers between Level 1 and Level 2; 2) Valuation processes for Level 3 fair value measurements; and 3) Policy for timing of transfers between levels of the fair value hierarchy. The ASU is effective for all entities for fiscal years beginning after December 15, 2019, including interim periods therein. Early adoption is permitted for any eliminated or modified disclosures upon issuance of this ASU.

## Note 2 – Earnings Per Share and Share Repurchase Plan

The following table sets forth the computation of basic and diluted earnings per share:

Year ended December 31,	2019	2018	2017
Numerator for basic and diluted earnings per share - net income	\$ 12,357	\$ 11,335	\$ 8,289
Denominator for basic earnings per share - weighted average outstanding	3,498,326	3,463,450	3,428,970
Effect of dilutive securities - employee stock options	5,824	19,059	16,841
Denominator for diluted earnings per share - adjusted weighted average shares outstanding	3,504,150	3,482,509	3,445,811
Earnings per share - basic	\$ 3.53	\$ 3.27	\$ 2.42
Earnings per share - diluted	\$ 3.53	\$ 3.25	\$ 2.41

There were 73,000, 25,000, and 25,000 stock options that were anti-dilutive as of December 31, 2019, 2018, and 2017 respectively. These stock options were not included in the above calculation.

On January 24, 2008, QNB announced that the Board of Directors authorized the repurchase of up to 50,000 shares of its common stock in open market or privately negotiated transactions. On February 9, 2009, the Board of Directors approved increasing the authorization to 100,000 shares. The repurchase authorization does not bear a termination date. There were no shares repurchased during the years ended December 31, 2019 or 2018. As of December 31, 2019 and 2018, 57,883 shares were repurchased under this authorization at an average price of \$16.97 and a total cost of \$982,000 and were recorded to Treasury stock.

## Note 3 – Cash and Cash Equivalents

Included in cash and cash equivalents are reserves in the form of deposits with the Federal Reserve Bank of Philadelphia. As of December 31, 2019 and 2018, QNB was not required to maintain reserves with the Federal Reserve Bank of Philadelphia.

## Note 4 - Investment Securities

### Trading

QNB engaged in trading activities for its own account, comprised of municipal securities that were held principally for resale in the near term are recorded in the trading account at fair value with changes in fair value recorded in net gain on trading activities in non-interest income. Interest and dividends are included in interest income. During the second quarter 2017, the Bank redeemed the trading securities portfolio, as lack of volatility and the interest rate environment resulted in declining performance of the portfolio. There were net realized gains of \$27,000 for the year ended December 31, 2017.

### Available-For-Sale Debt Securities

The amortized cost and fair values of investment debt securities available-for-sale at December 31, 2019 and 2018 were as follows:

	Fair value	Gross unrealized holding gains	Gross unrealized holding losses	Amortized cost
<b>December 31, 2019</b>				
U.S. Government agency	\$ 69,298	\$ 8	\$ (213)	\$ 69,503
State and municipal	50,781	860	(19)	49,940
U.S. Government agencies and sponsored enterprises (GSEs):				
Mortgage-backed	134,829	371	(504)	134,962
Collateralized mortgage obligations (CMOs)	86,610	260	(535)	86,885
Pooled trust preferred	79	—	(6)	85
Corporate debt	8,113	103	—	8,010
Total investment securities available-for-sale	<u>\$ 349,710</u>	<u>\$ 1,602</u>	<u>\$ (1,277)</u>	<u>\$ 349,385</u>
<b>December 31, 2018</b>				
U.S. Government agency	\$ 68,409	\$ —	\$ (2,072)	\$ 70,481
State and municipal	66,313	195	(464)	66,582
U.S. Government agencies and sponsored enterprises (GSEs):				
Mortgage-backed	125,913	79	(4,251)	130,085
Collateralized mortgage obligations (CMOs)	75,491	87	(2,549)	77,953
Pooled trust preferred	116	—	(6)	122
Corporate debt	7,979	33	(80)	8,026
Total investment securities available-for-sale	<u>\$ 344,221</u>	<u>\$ 394</u>	<u>\$ (9,422)</u>	<u>\$ 353,249</u>

The amortized cost and fair value of debt securities available-for-sale by contractual maturity at December 31, 2019 are shown in the following table. Expected maturities will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. Securities are assigned to categories based on contractual maturity except for mortgage-backed securities and CMOs which are based on the estimated average life of these securities and state and municipal securities which are based on pre-refunded date, if applicable.

	Fair value	Amortized cost
<b>December 31, 2019</b>		
Due in one year or less	\$ 10,740	\$ 10,743
Due after one year through five years	243,551	243,968
Due after five years through ten years	73,046	72,787
Due after ten years	22,373	21,887
Total investment securities available-for-sale	<u>\$ 349,710</u>	<u>\$ 349,385</u>

Proceeds from sales of investment debt securities available-for-sale were \$47,851,000, \$4,159,000 and \$28,087,000 for the years ended December 31, 2019, 2018 and 2017, respectively.

The following table presents information related to the Company's gains and losses on the sales of debt securities, and losses recognized for the other-than-temporary impairment ("OTTI") of these investments.

<u>December 31,</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Gross realized gains	\$ 169	\$ 25	\$ 581
Gross realized losses	(195)	(22)	(558)
Other-than-temporary impairment	—	—	—
Total net (losses) gains on AFS debt securities	<u>\$ (26)</u>	<u>\$ 3</u>	<u>\$ 23</u>

The tax benefit applicable to the net realized losses on debt securities was \$5,000 for the year ended December 31, 2019. The tax expense applicable to the net realized gains on debt securities were \$1,000 and \$8,000 for the years ended December 31, 2018 and 2017, respectively.

There were no other-than-temporary impairment charges recognized for debt securities still held by QNB for the years ended December 31, 2019, 2018 or 2017.

QNB recognizes OTTI for debt securities classified as available-for-sale in accordance with FASB ASC 320, *Investments – Debt and Equity Securities*, which requires that we assess whether we intend to sell or it is more likely than not that the Company will be required to sell a security before recovery of its amortized cost basis less any current-period credit losses. For debt securities that are considered other-than-temporarily impaired and that we do not intend to sell and will not be required to sell prior to recovery of our amortized cost basis, the amount of the impairment is separated into the amount that is credit related (credit loss component) and the amount due to all other factors. The credit loss component is recognized in earnings and is the difference between the security's amortized cost basis and the present value of its expected future cash flows discounted at the security's effective yield. The remaining difference between the security's fair value and the present value of future expected cash flows is due to factors that are not credit related and, therefore, is not required to be recognized as a loss in the consolidated statement of income, but is recognized in other comprehensive income (loss). QNB believes that we will fully collect the carrying value of securities on which we have recorded a non-credit related impairment in other comprehensive income (loss).

The following table presents a rollforward of the credit loss component recognized in earnings. The credit loss component of the amortized cost represents the difference between the present value of expected future cash flows and the amortized cost basis of the security prior to considering credit losses. The beginning balance represents the credit loss component for debt securities for which OTTI occurred prior to the beginning of the year. Credit-impaired debt securities must be presented in two components based upon whether the current period is the first time the debt security was credit-impaired (initial credit impairment) or is not the first time the debt security was credit-impaired (subsequent credit impairments). No credit impairments were recognized in 2019, 2018 or 2017. The following table presents a summary of the cumulative credit-related other-than-temporary impairment charges recognized as components of earnings for debt securities still held by QNB:

<u>Year ended December 31,</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Balance, beginning of year	\$ 1	\$ 1	\$ 1,153
Reductions: sale, collateralized debt obligation	—	—	(1,152)
Additions:			
Initial credit impairments	—	—	—
Subsequent credit impairments	—	—	—
Balance, end of year	<u>\$ 1</u>	<u>\$ 1</u>	<u>\$ 1</u>

At December 31, 2019 and 2018, investments in debt securities available-for-sale totaling \$205,016,000 and \$194,573,000, respectively, were pledged as collateral for repurchase agreements and deposits of public funds.

Debt securities that have been in a continuous unrealized loss position are as follows:

**December 31, 2019**

	No. of securities	Less than 12 months		12 months or longer		Total	
		Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
U.S. Government agency	36	\$ 28,857	\$ (141)	\$ 20,427	\$ (72)	\$ 49,284	\$ (213)
State and municipal	7	2,431	(14)	515	(5)	2,946	(19)
U.S. Government agencies and sponsored enterprises (GSEs):							
Mortgage-backed	66	28,482	(50)	52,398	(454)	80,880	(504)
Collateralized mortgage obligations (CMOs)	64	24,412	(82)	27,625	(453)	52,037	(535)
Pooled trust preferred	1	—	—	79	(6)	79	(6)
Corporate debt	—	—	—	—	—	—	—
<b>Total</b>	<b>174</b>	<b>\$ 84,182</b>	<b>\$ (287)</b>	<b>\$ 101,044</b>	<b>\$ (990)</b>	<b>\$ 185,226</b>	<b>\$ (1,277)</b>

**December 31, 2018**

	No. of securities	Less than 12 months		12 months or longer		Total	
		Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
U.S. Government agency	51	\$ —	\$ —	\$ 68,409	\$ (2,072)	\$ 68,409	\$ (2,072)
State and municipal	81	21,657	(204)	10,558	(260)	32,215	(464)
U.S. Government agencies and sponsored enterprises (GSEs):							
Mortgage-backed	111	12,561	(91)	108,802	(4,160)	121,363	(4,251)
Collateralized mortgage obligations (CMOs)	73	433	(1)	62,467	(2,548)	62,900	(2,549)
Pooled trust preferred	1	—	—	116	(6)	116	(6)
Corporate debt	4	—	—	3,947	(80)	3,947	(80)
<b>Total</b>	<b>321</b>	<b>\$ 34,651</b>	<b>\$ (296)</b>	<b>\$ 254,299</b>	<b>\$ (9,126)</b>	<b>\$ 288,950</b>	<b>\$ (9,422)</b>

Management evaluates debt securities, which are comprised of U.S. Government Agencies, state and municipalities, mortgage-backed securities, CMOs and other issuers, for OTTI and considers the current economic conditions, the length of time and the extent to which the fair value has been less than cost, interest rates and the bond rating of each security. The unrealized losses at December 31, 2019 in U.S. Government securities, state and municipal securities, mortgage-backed securities, CMOs and corporate debt securities are primarily the result of interest rate fluctuations. If held to maturity, these bonds will mature at par, and QNB will not realize a loss. QNB has the intent to hold the securities and does not believe it will be required to sell the securities before recovery occurs.

QNB holds one trust preferred security, PreTSL IV which is classified as available-for-sale and carried at fair value. This security has been in an unrealized loss position for more than twelve months.

The following table provides additional information related to PreTSL IV as of December 31, 2019:

Deal	Class	Book value	Fair value	Unrealized gains (losses)	Realized OTTI credit loss (YTD 2019)	Total recognized OTTI credit loss	Moody's ratings	Current number of performing banks	Current number of performing insurance companies	Actual deferrals and defaults as a % of total collateral	Total performing collateral as a % of outstanding bonds
PreTSL IV	Mezzanine*	\$ 85	\$ 79	\$ (6)	\$ —	\$ (1)	Bal	3	—	0.0%	228.3%

*Mezzanine\* - class of bonds still outstanding, represents the senior-most obligation of the trust)*

## Marketable Equity Securities

The Company's equity securities consist of investments with readily determinable fair values in large cap stock companies. Changes in the fair value of these equity securities are recorded to earnings in non-interest income, in accordance with ASU 2016-01 Financial Instruments – Overall (Subtopic 825-10) Recognition and Measurement of Financial Assets and Financial Liabilities, which the Company adopted January 1, 2018. Prior to the adoption of ASU 2016-01, the Company evaluated the near-term prospects of the issuers in relation to the severity and duration of the impairment as well as the individual issuer's financial condition, industry, geographic and legal environment and was required to record a decline in fair value to earnings if the security was determined to be other-than-temporarily impaired. Based on that evaluation the Company recorded impairment charges of \$80,000 to non-interest income for equity holdings during 2017.

At December 31, 2019 and 2018, the Company had \$9,164,000 and \$9,421,000, respectively, in equity securities recorded at fair value. Prior to January 1, 2018, equity securities were stated at fair value with unrealized gains and losses reported as a separate component of Accumulated Other Comprehensive Income ("AOCI"), net of tax. At December 31, 2017, net unrealized losses, net of tax, of \$254,000 had been recognized in AOCI. On January 1, 2018, these unrealized gains and losses were reclassified out of AOCI and into retained earnings with subsequent changes in fair value being recognized in net income. The following is a summary of unrealized and realized gains and losses recognized in net income on equity securities during 2019 and 2018:

<u>December 31,</u>	<u>2019</u>	<u>2018</u>
Net gains (losses) recognized during the period on equity securities	\$ 2,551	\$ (415)
Less: Net gains (losses) recognized during the period on equity securities sold during the period	1,781	(79)
Net unrealized gains (losses) recognized during the reporting period on equity securities still held at the reporting date	<u>\$ 770</u>	<u>\$ (336)</u>

The following table presents information related to the Company's gains and losses on the sales of equity securities, and losses recognized for the OTTI of these investments during 2017:

<u>December 31,</u>	<u>2017</u>
Gross realized gains	\$ 1,557
Gross realized losses	—
Other-than-temporary impairment	(80)
Total net gains on equity securities	<u>\$ 1,477</u>

Tax expense applicable to the net realized gains for the years ended December 31, 2019 and 2017 were \$737,000 and \$600,000, respectively. Tax benefit applicable to the net realized losses for the year ended December 31, 2018 was \$120,000. Proceeds from sales of investment equity securities were \$11,838,000, \$4,902,000 and \$14,422,000 for the years ended December 31, 2019, 2018 and 2017, respectively.

## Note 5 - Loans Receivable and the Allowance for Loan Losses

Major classes of loans are as follows:

<u>December 31,</u>	<u>2019</u>	<u>2018</u>
<b>Commercial:</b>		
Commercial and industrial	\$ 168,031	\$ 162,452
Construction	56,209	50,135
Secured by commercial real estate	336,050	308,590
Secured by residential real estate	72,443	68,581
State and political subdivisions	38,376	43,737
<b>Retail:</b>		
1-4 family residential mortgages	69,469	67,453
Home equity loans and lines	73,311	77,475
Consumer	6,530	6,785
Total loans	<u>820,419</u>	<u>785,208</u>
Net unearned costs	197	240
Loans receivable	<u>\$ 820,616</u>	<u>\$ 785,448</u>

Loans secured by commercial real estate include all loans collateralized at least in part by commercial real estate. These loans may not be for the express purpose of conducting commercial real estate transactions.

Overdrafts are reclassified as loans and are included in consumer loans above and total loans on the balance sheet. At December 31, 2019 and 2018, overdrafts were \$224,000 and \$183,000, respectively.

QNB generally lends in its trade area which is comprised of Quakertown and the surrounding communities. To a large extent, QNB makes loans collateralized at least in part by real estate. Its lending activities could be affected by changes in the general economy, the regional economy, or real estate values. Other than disclosed in the table above, at December 31, 2019, there was a concentration of loans to lessors of residential buildings and dwellings of 16.6% of total loans and to lessors of nonresidential buildings of 18.3% of total loans, compared with 15.8% and 18.1% of total loans, respectively, at December 31, 2018. These concentrations were primarily within the commercial real estate categories.

The Company engages in a variety of lending activities, including commercial, residential real estate and consumer transactions. The Company focuses its lending activities on individuals, professionals and small to medium sized businesses. Risks associated with lending activities include economic conditions and changes in interest rates, which can adversely impact both the ability of borrowers to repay their loans and the value of the associated collateral.

Commercial and industrial loans, commercial real estate loans, construction loans and residential real estate loans with a business purpose are generally perceived as having more risk of default than residential real estate loans with a personal purpose and consumer loans. These types of loans involve larger loan balances to a single borrower or groups of related borrowers and are more susceptible to a risk of loss during a downturn in the business cycle. These loans may involve greater risk because the availability of funds to repay these loans depends on the successful operation of the borrower's business. The assets financed are used within the business for its ongoing operation. Repayment of these types of loans generally comes from the cash flow of the business or the ongoing conversions of assets, such as accounts receivable and inventory, to cash. Typical collateral for commercial and industrial loans includes the borrower's accounts receivable, inventory and machinery and equipment. Commercial real estate and residential real estate loans secured for a business purpose are originated primarily within the eastern Pennsylvania market area at conservative loan-to-value ratios and often backed by the individual guarantees of the borrowers or owners. Repayment of this kind of loan is dependent upon either the ongoing cash flow of the borrowing entity or the resale of or lease of the subject property. Commercial real estate loans may be affected to a greater extent than residential loans by adverse conditions in real estate markets or the economy because commercial real estate borrowers' ability to repay their loans depends on successful development of their properties, as well as the factors affecting residential real estate borrowers.

Loans to state and political subdivisions are tax-exempt or taxable loans to municipalities, school districts and housing and industrial development authorities. These loans can be general obligations of the municipality or school district repaid through their taxing authority, revenue obligations repaid through the income generated by the operations of the authority, such as a water or sewer authority, or loans issued to a housing and industrial development agency, for which a private corporation is responsible for payments on the loans.

The Company originates fixed-rate and adjustable-rate real estate-residential mortgage loans for personal purposes that are secured by first liens on the underlying 1-4 family residential properties. Credit risk exposure in this area of lending is minimized by the evaluation of the credit worthiness of the borrower, including debt-to-income ratios, credit scores and adherence to underwriting policies that emphasize conservative loan-to-value ratios of generally no more than 80%. Residential mortgage loans granted in excess of the 80% loan-to-value ratio criterion are generally insured by private mortgage insurance.

The real estate-home equity portfolio consists of fixed-rate home equity loans and variable-rate home equity lines of credit. Risks associated with loans secured by residential properties are generally lower than commercial loans and include general economic risks, such as the strength of the job market, employment stability and the strength of the housing market. Since most loans are secured by a primary or secondary residence, the borrower's continued employment is the greatest risk to repayment.

The Company offers a variety of loans to individuals for personal and household purposes. Consumer loans are generally considered to have greater risk than first or second mortgages on real estate because they may be unsecured, or, if they are secured, the value of the collateral may be difficult to assess and is more likely to decrease in value than real estate. Credit risk in this portfolio is controlled by conservative underwriting standards that consider debt-to-income levels and the creditworthiness of the borrower and, if secured, collateral values.

The Company employs a ten-grade risk rating system related to the credit quality of commercial loans and loans to state and political subdivisions of which the first six categories are pass categories (credits not adversely rated). The following is a description of the internal risk ratings and the likelihood of loss related to each risk rating.

- 1 - Excellent - no apparent risk
- 2 - Good - minimal risk

- 3 - Acceptable - lower risk
- 4 - Acceptable - average risk
- 5 - Acceptable – higher risk
- 6 - Pass watch
- 7 - Special Mention - potential weaknesses
- 8 - Substandard - well defined weaknesses
- 9 - Doubtful - full collection unlikely
- 10 - Loss - considered uncollectible

The Company maintains a loan review system, which allows for a periodic review of our loan portfolio and the early identification of potential problem loans. Each loan officer assigns a rating to commercial loans and loans to state and political subdivisions at the time the loan is originated. Loans with risk ratings of one through five are reviewed annually based on the borrower’s fiscal year. Loans with risk ratings of six are reviewed every six to twelve months based on the dollar amount of the relationship with the borrower. Loans with risk ratings of seven through ten are reviewed at least quarterly, and as often as monthly, at management’s discretion. The Company also utilizes an outside loan review firm to review the portfolio on a semi-annual basis to provide the Board of Directors and senior management an independent review of the Bank’s loan portfolio on an ongoing basis. These reviews are designed to recognize deteriorating credits in their earliest stages in an effort to reduce and control risk in the lending function as well as identifying potential shifts in the quality of the loan portfolio. The examinations by the outside loan review firm include the review of lending activities with respect to underwriting and processing new loans, monitoring the risk of existing loans and to provide timely follow-up and corrective action for loans showing signs of deterioration in quality. In addition, the outside firm reviews the methodology for the allowance for loan losses to determine compliance to policy and regulatory guidance.

The following tables present the classes of the loan portfolio summarized by the aggregate pass rating and the classified ratings of special mention, substandard and doubtful within the Company’s internal risk rating system as of December 31, 2019 and 2018:

December 31, 2019	Pass	Special mention	Substandard	Doubtful	Total
<b>Commercial:</b>					
Commercial and industrial	\$ 158,247	\$ 3,665	\$ 6,119	\$ —	\$ 168,031
Construction	56,209	—	—	—	56,209
Secured by commercial real estate	324,936	2,995	8,119	—	336,050
Secured by residential real estate	70,759	—	1,684	—	72,443
State and political subdivisions	38,376	—	—	—	38,376
<b>Total</b>	<b>\$ 648,527</b>	<b>\$ 6,660</b>	<b>\$ 15,922</b>	<b>\$ —</b>	<b>\$ 671,109</b>

December 31, 2018	Pass	Special mention	Substandard	Doubtful	Total
<b>Commercial:</b>					
Commercial and industrial	\$ 155,219	\$ 82	\$ 7,151	\$ —	\$ 162,452
Construction	50,135	—	—	—	50,135
Secured by commercial real estate	297,713	1,259	9,618	—	308,590
Secured by residential real estate	66,838	173	1,570	—	68,581
State and political subdivisions	43,737	—	—	—	43,737
<b>Total</b>	<b>\$ 613,642</b>	<b>\$ 1,514</b>	<b>\$ 18,339</b>	<b>\$ —</b>	<b>\$ 633,495</b>

For retail loans, the Company evaluates credit quality based on the performance of the individual credits. The following tables present the recorded investment in the retail classes of the loan portfolio based on payment activity as of December 31, 2019 and 2018:

December 31, 2019	Performing	Non-performing	Total
<b>Retail:</b>			
1-4 family residential mortgages	\$ 68,833	\$ 636	\$ 69,469
Home equity loans and lines	72,774	537	73,311
Consumer	6,391	139	6,530
<b>Total</b>	<b>\$ 147,998</b>	<b>\$ 1,312</b>	<b>\$ 149,310</b>



December 31, 2018	Performing	Non-performing	Total
<b>Retail:</b>			
1-4 family residential mortgages	\$ 66,513	\$ 940	\$ 67,453
Home equity loans and lines	77,309	166	77,475
Consumer	6,659	126	6,785
<b>Total</b>	<b>\$ 150,481</b>	<b>\$ 1,232</b>	<b>\$ 151,713</b>

The performance and credit quality of the loan portfolio is also monitored by analyzing the age of the loans receivable as determined by the length of time a recorded payment is past due. The following table presents the classes of the loan portfolio (excluding deferred fees and costs) summarized by the past due status, regardless of whether the loan is on non-accrual status, as of December 31, 2019 and 2018:

December 31, 2019	30-59 days past due	60-89 days past due	90 days or more past due	Total past due loans	Current	Total loans receivable
<b>Commercial:</b>						
Commercial and industrial	\$ —	\$ 58	\$ 2,006	\$ 2,064	\$ 165,967	\$ 168,031
Construction	—	—	—	—	56,209	56,209
Secured by commercial real estate	—	—	1,527	1,527	334,523	336,050
Secured by residential real estate	208	79	142	429	72,014	72,443
State and political subdivisions	—	—	—	—	38,376	38,376
<b>Retail:</b>						
1-4 family residential mortgages	1,486	573	432	2,491	66,978	69,469
Home equity loans and lines	271	23	55	349	72,962	73,311
Consumer	29	71	—	100	6,430	6,530
<b>Total</b>	<b>\$ 1,994</b>	<b>\$ 804</b>	<b>\$ 4,162</b>	<b>\$ 6,960</b>	<b>\$ 813,459</b>	<b>\$ 820,419</b>

December 31, 2018	30-59 days past due	60-89 days past due	90 days or more past due	Total past due loans	Current	Total loans receivable
<b>Commercial:</b>						
Commercial and industrial	\$ 94	\$ 141	\$ 1,372	\$ 1,607	\$ 160,845	\$ 162,452
Construction	—	—	—	—	50,135	50,135
Secured by commercial real estate	305	1,029	638	1,972	306,618	308,590
Secured by residential real estate	24	352	291	667	67,914	68,581
State and political subdivisions	—	—	—	—	43,737	43,737
<b>Retail:</b>						
1-4 family residential mortgages	544	245	476	1,265	66,188	67,453
Home equity loans and lines	82	205	61	348	77,127	77,475
Consumer	23	35	24	82	6,703	6,785
<b>Total</b>	<b>\$ 1,072</b>	<b>\$ 2,007</b>	<b>\$ 2,862</b>	<b>\$ 5,941</b>	<b>\$ 779,267</b>	<b>\$ 785,208</b>

The following tables disclose the recorded investment in loans receivable that are either on non-accrual status or past due 90 days or more and still accruing interest as of December 31, 2019 and 2018:

<b>December 31, 2019</b>	<b>90 days or more past due (still accruing)</b>	<b>Non-accrual</b>
<b>Commercial:</b>		
Commercial and industrial	\$ —	\$ 5,901
Construction	—	—
Secured by commercial real estate	—	3,640
Secured by residential real estate	—	851
State and political subdivisions	—	—
<b>Retail:</b>		
1-4 family residential mortgages	—	636
Home equity loans and lines	—	537
Consumer	—	139
<b>Total</b>	<b>\$ —</b>	<b>\$ 11,704</b>

<b>December 31, 2018</b>	<b>90 days or more past due (still accruing)</b>	<b>Non-accrual</b>
<b>Commercial:</b>		
Commercial and industrial	\$ —	\$ 3,179
Construction	—	—
Secured by commercial real estate	—	1,965
Secured by residential real estate	—	1,102
State and political subdivisions	—	—
<b>Retail:</b>		
1-4 family residential mortgages	—	940
Home equity loans and lines	—	166
Consumer	—	126
<b>Total</b>	<b>\$ —</b>	<b>\$ 7,478</b>

Activity in the allowance for loan losses for the years ended December 31, 2019, 2018 and 2017 are as follows:

<b>Year ended December 31, 2019</b>	<b>Balance, beginning of period</b>	<b>Provision for (credit to) loan losses</b>	<b>Charge-offs</b>	<b>Recoveries</b>	<b>Balance, end of period</b>
<b>Commercial:</b>					
Commercial and industrial	\$ 3,092	\$ 1,771	\$ (207)	\$ 33	\$ 4,689
Construction	551	39	—	—	590
Secured by commercial real estate	2,824	(315)	—	10	2,519
Secured by residential real estate	754	(197)	(51)	123	629
State and political subdivisions	153	(38)	—	—	115
<b>Retail:</b>					
1-4 family residential mortgages	497	52	—	—	549
Home equity loans and lines	338	(26)	(17)	15	310
Consumer	164	219	(197)	44	230
Unallocated	461	(205)	N/A	N/A	256
<b>Total</b>	<b>\$ 8,834</b>	<b>\$ 1,300</b>	<b>\$ (472)</b>	<b>\$ 225</b>	<b>\$ 9,887</b>

<b>Year ended December 31, 2018</b>	<b>Balance, beginning of period</b>	<b>Provision for (credit to) loan losses</b>	<b>Charge-offs</b>	<b>Recoveries</b>	<b>Balance, end of period</b>
<b>Commercial:</b>					
Commercial and industrial	\$ 2,711	\$ 341	\$ —	\$ 40	\$ 3,092
Construction	563	(12)	—	—	551
Secured by commercial real estate	2,410	391	—	23	2,824
Secured by residential real estate	816	(12)	(77)	27	754
State and political subdivisions	114	39	—	—	153
<b>Retail:</b>					
1-4 family residential mortgages	444	54	(1)	—	497
Home equity loans and lines	357	52	(84)	13	338
Consumer	57	185	(112)	34	164
Unallocated	369	92	N/A	N/A	461
<b>Total</b>	<b>\$ 7,841</b>	<b>\$ 1,130</b>	<b>\$ (274)</b>	<b>\$ 137</b>	<b>\$ 8,834</b>

<b>Year ended December 31, 2017</b>	<b>Balance, beginning of period</b>	<b>Provision for (credit to) loan losses</b>	<b>Charge-offs</b>	<b>Recoveries</b>	<b>Balance, end of period</b>
<b>Commercial:</b>					
Commercial and industrial	\$ 1,459	\$ 2,178	\$ (960)	\$ 34	\$ 2,711
Construction	449	114	—	—	563
Secured by commercial real estate	2,646	(244)	—	8	2,410
Secured by residential real estate	1,760	(959)	(23)	38	816
State and political subdivisions	123	(9)	—	—	114
<b>Retail:</b>					
1-4 family residential mortgages	366	78	—	—	444
Home equity loans and lines	353	(6)	—	10	357
Consumer	76	41	(92)	32	57
Unallocated	162	207	N/A	N/A	369
<b>Total</b>	<b>\$ 7,394</b>	<b>\$ 1,400</b>	<b>\$ (1,075)</b>	<b>\$ 122</b>	<b>\$ 7,841</b>

As previously discussed, the Company maintains a loan review system, which includes a continuous review of the loan portfolio by internal and external parties to aid in the early identification of potential impaired loans. A loan is considered impaired when, based on current information and events, it is probable that the Company 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 the shortfall in relation to the principal and interest owed. Impairment is measured on a loan by loan basis for commercial loans and loans to state and political subdivisions by using either the present value of expected future cash flows discounted at the loan's effective interest rate or the fair value of the collateral if the loan is collateral dependent.

Large groups of smaller balance homogeneous loans are collectively evaluated for impairment. Accordingly, the Company does not separately identify individual consumer and residential mortgage loans for impairment disclosures, unless such loans are part of a larger relationship that is impaired or are classified as a troubled debt restructuring.

An allowance for loan losses is established for an impaired loan if its carrying value exceeds its estimated fair value. The estimated fair values of the majority of the Company's impaired loans are measured based on the estimated fair value of the loan's collateral.

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

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

From time to time, QNB may extend, restructure, or otherwise modify the terms of existing loans, on a case-by-case basis, to remain competitive and retain certain customers, as well as assist other customers that may be experiencing financial difficulties. A loan is considered to be a troubled debt restructuring ("TDR") loan when the Company grants a concession to the borrower because of the borrower's financial condition that it would not otherwise consider. Such concessions include the reduction of interest rates, extension of terms, forgiveness of principal or interest, or other modifications of interest rates to less than the current market rate for new obligations with similar risk. Loans classified as TDRs are considered non-performing and are also designated as impaired.

The concessions made for TDRs involve lowering the monthly payments on loans through periods of interest only payments, a reduction in interest rate below a market rate or an extension of the term of the loan without a corresponding adjustment to the risk premium reflected in the interest rate, or a combination of these three methods. The restructurings rarely result in the forgiveness of principal or accrued interest. If the borrower has demonstrated performance under the previous terms and our underwriting process shows the borrower has the capacity to continue to perform under the restructured terms, the loan will continue to accrue interest. Non-accruing restructured loans may be returned to accrual status when there has been a sustained period of repayment performance (generally six consecutive months of payments) and both principal and interest are deemed collectible.

Performing TDRs (not reported as non-accrual or past due 90 days or more and still accruing) totaled \$4,760,000 and \$2,160,000 as of December 31, 2019 and 2018, respectively. Non-performing TDRs totaled \$1,131,000 and \$1,317,000 as of December 31, 2019 and 2018, respectively. All TDRs are included in impaired loans.

The following table illustrates the specific reserve for loan losses allocated to loans modified as TDRs. These specific reserves are included in the allowance for loan losses for loans individually evaluated for impairment. There were charge-offs resulting from loans modified as TDRs of \$5,000, \$51,000 and \$3,000 during the years ended December 31, 2019, 2018 and 2017, respectively.

December 31,	2019		2018	
	Unpaid principal balance	Related allowance	Unpaid principal balance	Related allowance
TDRs with no specific allowance recorded	\$ 2,957	\$ —	\$ 2,513	\$ —
TDRs with an allowance recorded	2,934	450	964	411
Total	\$ 5,891	\$ 450	\$ 3,477	\$ 411

There were six newly identified TDRs during the year ended December 31, 2019 including a commercial and industrial loan restructured into three loans secured by commercial real estate and a reduced the line of credit available under the existing commercial and industrial loan; and one existing TDR included in the table below whose terms were modified a second time. As of December 31, 2019 and 2018, QNB had commitments of \$24,000 and \$0, respectively, to lend additional funds to customers with loans whose terms have been modified in troubled debt restructurings.

The following table presents loans, by loan class, modified as TDRs during the years ended December 31, 2019 and 2018. The pre-modification outstanding recorded investment disclosed represents the carrying amounts immediately prior to the modification of the loan. The post-modification outstanding recorded investment is net of loan repayments.

Year ended December 31,	2019			2018		
	Number of contracts	Pre-modification outstanding recorded investment	Post-modification outstanding recorded investment	Number of contracts	Pre-modification outstanding recorded investment	Post-modification outstanding recorded investment
<b>Commercial:</b>						
Commercial and industrial	1	\$ 641	\$ 126	—	\$ —	\$ —
Secured by commercial real estate	3	\$ 2,540	\$ 2,528	1	\$ 99	\$ 99
Secured by residential real estate	3	—	534	1	39	29
<b>Retail:</b>						
Home equity loans and lines	—	—	—	2	95	86
<b>Total</b>	<b>7</b>	<b>\$ 3,181</b>	<b>\$ 3,188</b>	<b>4</b>	<b>\$ 233</b>	<b>\$ 214</b>

There were no loans modified as TDRs, included above, within the previous 12 months from December 31, 2019 and 2018, for which there was a payment default, past due 60 days or more, during the respective year end.

The company had four loans secured by residential real estate with a recorded investment of \$467,000 for which foreclosure proceedings were in process as of December 31, 2019. There were five mortgage loans secured by residential real estate with a recorded investment of \$537,000 for which foreclosure proceedings were in process at December 31, 2018.

The following tables present the balance in the allowance of loan losses disaggregated on the basis of the Company's impairment method by class of loans receivable along with the balance of loans receivable by class, excluding unearned fees and costs, disaggregated on the basis of the Company's impairment methodology:

December 31, 2019	Allowance for Loan Losses			Loans Receivable		
	Balance	Balance related to loans individually evaluated for impairment	Balance related to loans collectively evaluated for impairment	Balance	Balance individually evaluated for impairment	Balance collectively evaluated for impairment
<b>Commercial:</b>						
Commercial and industrial	\$ 4,689	\$ 3,307	\$ 1,382	\$ 168,031	\$ 6,027	\$ 162,004
Construction	590	—	590	56,209	—	56,209
Secured by commercial real estate	2,519	217	2,302	336,050	7,172	328,878
Secured by residential real estate	629	31	598	72,443	2,082	70,361
State and political subdivisions	115	—	115	38,376	—	38,376
<b>Retail:</b>						
1-4 family residential mortgages	549	—	549	69,469	955	68,514
Home equity loans and lines	310	—	310	73,311	555	72,756
Consumer	230	11	219	6,530	69	6,461
Unallocated	256	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>\$ 9,887</b>	<b>\$ 3,566</b>	<b>\$ 6,065</b>	<b>\$ 820,419</b>	<b>\$ 16,860</b>	<b>\$ 803,559</b>

December 31, 2018	Allowance for Loan Losses			Loans Receivable		
	Balance	Balance related to loans individually evaluated for impairment	Balance related to loans collectively evaluated for impairment	Balance	Balance individually evaluated for impairment	Balance collectively evaluated for impairment
<b>Commercial:</b>						
Commercial and industrial	\$ 3,092	\$ 1,461	\$ 1,631	\$ 162,452	\$ 7,128	\$ 155,324
Construction	551	—	551	50,135	-	50,135
Secured by commercial real estate	2,824	101	2,723	308,590	6,083	302,507
Secured by residential real estate	754	97	657	68,581	1,740	66,841
State and political subdivisions	153	—	153	43,737	—	43,737
<b>Retail:</b>						
1-4 family residential mortgages	497	—	497	67,453	1,268	66,185
Home equity loans and lines	338	5	333	77,475	186	77,289
Consumer	164	—	164	6,785	77	6,708
Unallocated	461	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>\$ 8,834</b>	<b>\$ 1,664</b>	<b>\$ 6,709</b>	<b>\$ 785,208</b>	<b>\$ 16,482</b>	<b>\$ 768,726</b>

The following table summarizes additional information regarding impaired loans by loan portfolio class as of December 31, 2019 and 2018:

	December 31, 2019			December 31, 2018		
	Recorded investment (after charge-offs)	Unpaid principal balance	Related allowance	Recorded investment (after charge-offs)	Unpaid principal balance	Related allowance
<b>With no specific allowance recorded:</b>						
Commercial:						
Commercial and industrial	\$ 901	\$ 1,258	\$ —	\$ 4,243	\$ 4,525	\$ —
Construction	—	—	—	—	—	—
Secured by commercial real estate	3,735	4,362	—	5,012	5,577	—
Secured by residential real estate	1,936	2,110	—	1,023	1,140	—
Retail:						
1-4 family residential mortgages	—	—	—	1,268	1,357	—
Home equity loans and lines	955	1,010	—	140	190	—
Consumer	555	612	—	77	84	—
<b>Total</b>	<b>\$ 8,082</b>	<b>\$ 9,352</b>	<b>\$ —</b>	<b>\$ 11,763</b>	<b>\$ 12,873</b>	<b>\$ —</b>
<b>With an allowance recorded:</b>						
Commercial:						
Commercial and industrial	\$ 5,126	\$ 6,577	\$ 3,307	\$ 2,885	\$ 4,128	\$ 1,461
Construction	—	—	—	—	—	—
Secured by commercial real estate	3,437	3,495	217	1,071	1,095	101
Secured by residential real estate	146	193	31	717	773	97
Retail:						
1-4 family residential mortgages	—	—	—	—	—	—
Home equity loans and lines	—	—	—	46	46	5
Consumer	69	79	11	—	—	—
<b>Total</b>	<b>\$ 8,778</b>	<b>\$ 10,344</b>	<b>\$ 3,566</b>	<b>\$ 4,719</b>	<b>\$ 6,042</b>	<b>\$ 1,664</b>
<b>Total:</b>						
Commercial:						
Commercial and industrial	\$ 6,027	\$ 7,835	\$ 3,307	\$ 7,128	\$ 8,653	\$ 1,461
Construction	—	—	—	—	—	—
Secured by commercial real estate	7,172	7,857	217	6,083	6,672	101
Secured by residential real estate	2,082	2,303	31	1,740	1,913	97
Retail:						
1-4 family residential mortgages	—	—	—	1,268	1,357	—
Home equity loans and lines	955	1,010	—	186	236	5
Consumer	624	691	11	77	84	—
<b>Total</b>	<b>\$ 16,860</b>	<b>\$ 19,696</b>	<b>\$ 3,566</b>	<b>\$ 16,482</b>	<b>\$ 18,915</b>	<b>\$ 1,664</b>

The following table presents additional information regarding the average recorded investment and interest income recognized on impaired loans for the years ended December 31, 2019, 2018 and 2017:

Year Ended December 31,	2019		2018		2017	
	Average recorded investment	Interest income recognized	Average recorded investment	Interest income recognized	Average recorded investment	Interest income recognized
<b>Commercial:</b>						
Commercial and industrial	\$ 4,603	\$ 1	\$ 6,064	\$ 227	\$ 5,301	\$ 14
Construction	—	—	—	—	51	2
Secured by commercial real estate	4,682	94	4,908	189	5,744	145
Secured by residential real estate	1,713	40	1,800	23	2,252	23
State and political subdivisions	—	—	—	—	—	—
<b>Retail:</b>						
1-4 family residential mortgages	1,037	12	1,251	12	1,155	13
Home equity loans and lines	281	1	186	1	138	1
Consumer	73	—	81	—	97	—
<b>Total</b>	<b>\$ 12,389</b>	<b>\$ 148</b>	<b>\$ 14,290</b>	<b>\$ 452</b>	<b>\$ 14,738</b>	<b>\$ 198</b>

### Note 6 - Premises and Equipment

Premises and equipment, stated at cost less accumulated depreciation and amortization, are summarized below:

December 31,	2019	2018
Land and buildings	\$ 12,260	\$ 12,258
Furniture and equipment	15,699	14,618
Leasehold improvements	4,252	2,816
Right-of-use asset	3,821	—
Book value	36,032	29,692
Accumulated depreciation and amortization	(20,424)	(19,774)
Net book value	<u>\$ 15,608</u>	<u>\$ 9,918</u>

Depreciation and amortization expense on premises and equipment amounted to \$1,211,000, \$990,000, and \$821,000 for the years ended December 31, 2019, 2018 and 2017, respectively.

The following table summarized the quantitative attributes of QNB's operating leases:

Year ended December 31,	2019
<b>Lease cost</b>	
Operating lease cost	\$ 617
Total lease cost	<u>\$ 617</u>
<b>Other information</b>	
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cashflows from operating leases	\$ 583
At implementation of new accounting guidance:	
Right-of-use assets recorded for finance lease liabilities	\$ 2,005
Right-of-use assets obtained in exchange for new operating lease liabilities	\$ 2,407
Weighted average remaining lease terms:	
Operating leases	15.6 years
Weighted average discount rates:	
Operating leases	3.11%



## Note 7 - Intangible Assets and Loan Servicing

Loans serviced for others are not included in the accompanying consolidated balance sheets. The unpaid principal balances of mortgage loans serviced for others were \$73,108,000 and \$73,993,000 at December 31, 2019 and 2018, respectively.

The following table reflects the activity of mortgage servicing rights for the periods indicated:

Year ended December 31,	2019	2018	2017
Balance at beginning of year	\$ 451	\$ 483	\$ 498
Mortgage servicing rights capitalized	61	33	67
Mortgage servicing rights amortized	(72)	(66)	(83)
Fair market value adjustments	1	1	1
Balance at end of year	<u>\$ 441</u>	<u>\$ 451</u>	<u>\$ 483</u>

The balance of these mortgage servicing rights is included in other assets at December 31, 2019 and 2018 and the fair value of these rights was \$551,000 and \$604,000, respectively. The fair value of servicing rights was determined using discount rates ranging from 12.0% to 12.5 % for both 2019 and 2018.

The annual estimated amortization expense of intangible assets for each of the five succeeding fiscal years is as follows:

2020	\$ 75
2021	63
2022	53
2023	45
2024	37

## Note 8 - Time Deposits

The aggregate amount of time deposits, including deposits in denominations of \$100,000 or more, was \$235,576,000 and \$223,788,000 at December 31, 2019 and 2018, respectively. Time deposits that meet or exceed the FDIC insurance limit of \$250,000 at December 31, 2019 and 2018 were \$45,064,000 and \$47,266,000, respectively.

At December 31, 2019, the scheduled maturities of time deposits were as follows:

2020	\$ 140,955
2021	58,405
2022	16,736
2023	10,304
2024	9,176
Thereafter	—
Total time deposits	<u>\$235,576</u>

## Note 9 - Short-Term Borrowings

December 31,	Securities sold under agreements to repurchase <sup>(a)</sup>	Other short - term borrowings <sup>(b)</sup>
<b>2019</b>		
Balance	\$ 44,114	\$ 11,817
Maximum indebtedness at any month end	44,114	33,260
Daily average indebtedness outstanding	40,220	16,761
Average rate paid for the year	0.70%	2.49%
Average rate on period-end borrowings	0.62	1.81
<b>2018</b>		
Balance	\$ 47,007	\$ 3,865
Maximum indebtedness at any month end	47,007	46,451
Daily average indebtedness outstanding	38,172	22,767
Average rate paid for the year	0.55%	2.03%
Average rate on period-end borrowings	0.67	2.65

- (a) Securities sold under agreements to repurchase mature overnight. The repurchase agreements were collateralized by U.S. Government mortgage-backed securities and CMOs with an amortized cost of \$55,928,000 and \$62,445,000 and a fair value of \$55,795,000 and \$60,408,000 and at December 31, 2019 and 2018, respectively. These securities are held in safekeeping at the Federal Reserve Bank of Boston.
- (b) Other short-term borrowings include Federal funds purchased and overnight borrowings from the FHLB.

The Bank has five unsecured Federal funds lines granted by correspondent banks totaling \$61,000,000. Federal funds purchased under these lines were \$0 at both December 31, 2019 and 2018.

## Note 10 - Long-Term Debt

FHLB advances are collateralized by certain mortgage loans and also require the purchase of FHLB capital stock, which is included within restricted investment in bank stock on the consolidated balance sheets. QNB's FHLB stock is \$1,061,000 and \$785,000 at December 31, 2019 and 2018, respectively.

QNB has a maximum borrowing capacity with the FHLB of approximately \$335,313,000. At December 31, 2019 QNB had \$11,817,000 in borrowings outstanding with the FHLB reported in Note 9 as other short-term borrowings and a letter of credit issued of \$350,000. QNB had \$3,865,000 in short-term borrowings outstanding and a letter of credit of \$350,000 with the FHLB at December 31, 2018.

## Note 11 - Income Taxes

The Tax Cuts and Jobs Act (the "2017 Tax Reform Act") was enacted on December 22, 2017. The 2017 Tax Reform Act reduced the U.S. Federal corporate tax rate for QNB from 34% to 21% effective January 1, 2018. U.S. GAAP required that the tax impact of the rate change on existing tax account balances be recognized in the 2017 provision. A reasonable estimate of the rate change effect on QNB's existing deferred tax asset/liability accounts (DTA/DTL) was made and a \$2,054,000 adjustment to the 2017 tax provision was recorded. A portion of the DTA/DTL tax rate change effect related to QNB's unrealized gains(losses) on available for sale securities, net of their expected deferred tax benefit, included in AOCI and created a "stranded tax effect" of \$805,000. In February 2018, FASB issued ASU 2018-02, as discussed in Note 1, allowing a one-time reclassification of such "stranded tax effect" from AOCI to retained earnings. In the first quarter of 2018, QNB reclassified \$805,000 of deferred tax benefits from AOCI to retained earnings as reflected in the Consolidated Statements of Shareholders' Equity.

In 2018, QNB's 2017 Federal tax return was filed and included an election to change tax methods for bad debt conformity and for loan origination costs. This resulted in a tax benefit of \$415,000 related to the change in the tax rate from 34% to 21%. These discrete tax items were recorded in 2018.

The components of the provision for income taxes are as follows:

Year ended December 31,	2019	2018	2017
Current Federal income taxes	\$ 2,789	\$ 1,742	\$ 3,454
Current state income taxes	380	57	124
Deferred Federal income taxes (benefits)	(207)	363	268
Deferred state income taxes (benefits)	(112)	(105)	—
Other	—	(85)	—
Net provision prior to discrete tax adjustments	2,850	1,972	3,846
DTL writeoff due to change in tax methods	—	(415)	—
Net DTA revaluation for change in tax rate under 2017 Tax Reform	—	—	2,054
Net provision	<u>\$ 2,850</u>	<u>\$ 1,557</u>	<u>\$ 5,900</u>

At December 31, 2019 and 2018, the tax effects of temporary differences that represent the significant portion of deferred tax assets and liabilities are as follows:

December 31,	2019	2018
<b>Deferred tax assets</b>		
Allowance for loan losses	\$ 2,076	\$ 1,855
Net unrealized holding losses on investment securities available-for-sale	—	1,896
Fair value adjustment on equity securities	—	190
Non-accrual interest income	54	76
Deferred rent	—	59
Deferred revenue	71	121
Incurred but not reported medical expense	31	33
Bonus	218	178
State net operating loss carryforward	—	29
Other	33	27
Total deferred tax assets	<u>2,483</u>	<u>4,464</u>
<b>Deferred tax liabilities</b>		
Deferred loan costs	369	361
Depreciation	289	179
Mortgage servicing rights	92	95
Net unrealized holding losses on investment securities available-for-sale	68	—
Fair value adjustment on equity securities	32	—
Prepaid expenses	151	92
Deferred rent	23	—
Other	18	13
Total deferred tax liabilities	<u>1,042</u>	<u>740</u>
Net deferred tax asset	<u>\$ 1,441</u>	<u>\$ 3,724</u>

The ability to realize deferred tax assets is dependent upon a variety of factors, including the generation of future taxable income, the existence of taxes paid and recoverable, the reversal of deferred tax liabilities and tax planning strategies. Based upon these and other factors, management believes it is more likely than not that QNB will realize the benefits of the above deferred tax assets.

A reconciliation of the tax provision on income before taxes computed at the statutory rates of 21% for 2019 and 2018 and 34% for 2017 and the actual tax provision was as follows:

Year ended December 31,	2019		2018		2017	
	Dollar	%	Dollar	%	Dollar	%
Provision at statutory rate	\$ 3,193	21.0%	\$ 2,707	21.0%	\$ 4,825	34.0%
Tax-exempt interest and dividend income	(538)	(3.5)	(577)	(4.5)	(948)	(6.7)
Bank-owned life insurance	(61)	(0.4)	(61)	(0.4)	(100)	(0.7)
Life insurance proceeds	—	—	—	—	(18)	(0.1)
Stock-based compensation expense	20	0.1	17	0.1	19	0.1
State income tax	205	1.3	(19)	(0.1)	82	0.6
Other	31	0.2	(95)	(0.8)	(14)	(0.1)
Net provision prior to discrete tax adjustments	2,850	18.7	1,972	15.3	3,846	27.1
DTL writeoff for change in tax methods	—	—	(415)	(3.2)	—	—
Net DTA revaluation for change in tax rate under 2017 Tax Reform	—	—	—	—	2,054	14.5
Net provision	<u>\$ 2,850</u>	<u>18.7%</u>	<u>\$ 1,557</u>	<u>12.1%</u>	<u>\$ 5,900</u>	<u>41.6%</u>

### Note 12 - Employee Benefit Plans

The QNB Bank Retirement Savings Plan provides for elective employee contributions up to the maximum allowed by the IRS and a matching company contribution limited to 3%. In addition, the plan provides for safe harbor non-elective contributions of 5% of total compensation by QNB. QNB contributed a matching contribution of approximately \$309,000, \$271,000 and \$259,000 for the years ended December 31, 2019, 2018, and 2017, respectively, and a safe harbor contribution of approximately \$553,000 for 2019, \$494,000 for 2018, and \$478,000 for 2017.

QNB's Employee Stock Purchase Plan (the Plan) offers eligible employees an opportunity to purchase shares of QNB Corp. common stock at a 10% discount from the lesser of fair market value on the first or last day of each offering period (as defined by the Plan). At the 2016 Annual Meeting, shareholders approved the 2016 Employee Stock Purchase Plan (the 2016 Plan), which authorizes the issuance of 30,000 shares. As of December 31, 2019, 10,325 shares were issued under the 2016 Plan. The 2016 Plan expires May 31, 2021.

Shares issued pursuant to the Plan were as follows:

Year ended December 31,	2019	2018	2017
Shares	3,310	2,963	2,660
Price per share	\$33.53	\$39.60 and \$39.47	\$31.95 and \$36.18

### Note 13 - Stock Option Plan

QNB has stock option plans (the Plans) administered by a committee which consists of three or more members of QNB's Board of Directors. The Plans provide for the granting of either (i) Non-Qualified Stock Options (NQSOs) or (ii) Incentive Stock Options (ISOs). The exercise price of an option, as defined by the Plans, is the fair market value of QNB's common stock at the date of grant. The Plans provide for the exercise either in cash or in securities of the Company or in any combination thereof.

The 2005 Plan authorized the issuance of 200,000 shares. The time period by which any option is exercisable under the Plan is determined by the Committee but shall not commence before the expiration of six months after the date of grant or continue beyond the expiration of five years after the date grant date. The granted options vest after a three-year period. As of December 31, 2019, there were 184,200 options granted, 65,850 options forfeited, 109,950 options exercised and 8,400 options outstanding under this Plan. The 2005 Plan expired March 15, 2015.

The 2015 Plan authorizes the issuance of 300,000 shares. The terms of the 2015 Plan are identical to the 2005 plan. There were 98,200 options granted, 2,600 options forfeited, 650 options exercised and 94,950 options outstanding under this Plan as of December 31, 2019.

As of December 31, 2019, there was approximately \$117,000 of unrecognized compensation cost related to unvested stock option awards granted. That cost is expected to be recognized over the next 26 months.

Stock option activity during 2019, 2018, and 2017 was as follows:

	Number of options	Weighted average exercise price	Weighted average remaining contractual term (in years)	Aggregate intrinsic value
Outstanding at December 31, 2016	73,950	\$ 27.14		
Exercised	(13,125)	22.42		
Forfeited	(300)	22.58		
Granted	25,000	37.60		
Outstanding at December 31, 2017	85,525	30.94		
Exercised	(13,850)	24.96		
Forfeited	(1,600)	32.52		
Granted	25,000	43.60		
Outstanding at December 31, 2018	95,075	35.11		
Exercised	(14,925)	27.16		
Forfeited	(1,500)	37.20		
Granted	24,700	38.15		
Outstanding at December 31, 2019	<u>103,350</u>	<u>\$ 36.96</u>	<u>2.47</u>	<u>\$ 296</u>
Exercisable at December 31, 2019	<u>30,200</u>	<u>\$ 30.08</u>	<u>0.84</u>	<u>\$ 259</u>

As of December 31, 2019, outstanding stock options consist of the following:

	Options outstanding	Exercise price	Remaining life (in years)	Options exercisable	Exercise price
	8,400	\$ 29.25	0.08	8,400	\$ 29.25
	21,800	30.40	1.13	21,800	30.40
	23,950	37.60	2.13	—	—
	24,500	43.60	3.14	—	—
	24,700	38.15	4.13	—	—
Outstanding at December 31, 2019	<u>103,350</u>	<u>\$ 36.96</u>	<u>2.47</u>	<u>30,200</u>	<u>\$ 30.08</u>

The intrinsic value related to total stock options exercised during 2019, 2018, and 2017 are as follows:

	2019	2018	2017
Intrinsic value of stock options exercised	\$ 153	\$ 274	\$ 204

#### Note 14 - Related Party Transactions

QNB has had, and may be expected to have in the future, banking transactions in the ordinary course of business with its executive officers, directors, principal shareholders, their immediate families and affiliated companies. The following table presents activity and amounts due from directors, principal officers, and their related interests. All of these transactions were made in the ordinary course of business on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other persons. These transactions did not involve more than normal risk of collectability or present any other unfavorable features.

Balance, December 31, 2018	\$ 12,891
New loans	14,274
Repayments	(13,326)
Balance, December 31, 2019	<u>\$ 13,839</u>

The following table provides additional information regarding transactions with related parties.

December 31,	2019	2018
Commitments to extend credit	\$ 6,338	\$ 6,867
Letters of credit	1,696	1,296
Deposits received	8,779	7,181

## Note 15 - Commitments and Contingencies

### Financial instruments with off-balance sheet risk:

In the normal course of business there are various legal proceedings, commitments, and contingent liabilities which are not reflected in the consolidated financial statements. Management does not anticipate any material losses as a result of these transactions and activities. They include, among other things, commitments to extend credit and standby letters of credit. The maximum exposure to credit loss, which represents the possibility of sustaining a loss due to the failure of the other parties to a financial instrument to perform according to the terms of the contract, is represented by the contractual amount of these instruments. QNB uses the same lending standards and policies in making credit commitments as it does for on-balance sheet instruments. The activity is controlled through credit approvals, control limits, and monitoring procedures.

A summary of the Bank's financial instrument commitments is as follows:

<u>December 31,</u>	<u>2019</u>	<u>2018</u>
Commitments to extend credit and unused lines of credit	\$ 273,088	\$ 266,021
Standby letters of credit	11,704	17,269
Total financial instrument commitments	<u>\$ 284,792</u>	<u>\$ 283,290</u>

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

Standby letters of credit are conditional commitments issued by the Bank to guarantee the financial or performance obligation of a customer to a third party. QNB's exposure to credit loss in the event of nonperformance by the other party to the financial instrument for standby letters of credit is represented by the contractual amount of those instruments. The Bank uses the same credit policies in making conditional obligations as it does for on-balance sheet instruments. Standby letters of credit totaling \$10,235,000 expire within one year. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending other loan commitments. The Bank requires collateral and personal guarantees supporting these letters of credit as deemed necessary. The amount of collateral obtained for letters of credit and commitments to extend credit is based on management's credit evaluation of the customer. Collateral varies, but may include real estate, accounts receivable, marketable securities, pledged deposits, inventory or equipment. Management believes that the proceeds obtained through a liquidation of such collateral and the enforcement of personal guarantees would be sufficient to cover the maximum potential amount of future payments required under the corresponding guarantees. The amount of the liability as of December 31, 2019 and 2018 for guarantees under standby letters of credit issued is not material.

### Other commitments:

QNB has committed to various operating leases for several of their branch and office facilities. Some of these leases include specific provisions relating to rent increases. A maturity analysis of the operating lease liabilities and reconciliation of the undiscounted cash flows to the total operating lease liability is as follows:

	<u>Operating Leases</u>
2020	\$ 533
2021	470
2022	465
2023	414
2024	322
Thereafter	3,255
Total undiscounted cashflows	5,459
Total discount on cashflows	(1,316)
Total lease liabilities	<u>\$ 4,143</u>

Some of the leases contain renewal options to extend the initial terms of the lease for periods ranging from five to ten years and certain leases allow for multiple extensions, the commitment for such renewals is not included above if they have not been exercised as of December 31, 2019. Operating lease costs, which include common area maintenance costs not included in the minimum lease payments above, for the years ended December 31, 2019, 2018 and 2017, was \$ 778,000, \$681,000 and \$645,000, respectively.

## Note 16 - Accumulated Other Comprehensive Income (Loss)

The following shows the components of accumulated other comprehensive income (loss) during the periods ended December 31, 2019, 2018 and 2017:

December 31,	2019	2018	2017
Unrealized net holding (losses) gains on available-for-sale securities	\$ 325	\$ (9,028)	\$ (6,165)
Unrealized losses on available-for-sale securities for which a portion of an other-than-temporary impairment loss has been recognized in earnings	—	—	(26)
Accumulated other comprehensive (loss) income	325	(9,028)	(6,191)
Tax effect*	(68)	1,896	1,300
Stranded tax effect	—	—	805
Accumulated other comprehensive income (loss), net of tax	<u>\$ 257</u>	<u>\$ (7,132)</u>	<u>\$ (4,086)</u>

\* At tax rates of 21%

The stranded tax effect is related to the recognition of tax rate change effects on AFS DTA/DTL revaluation, resulting from the 2017 Tax Reform Act, as described in Note 11. The following table presents amounts reclassified out of accumulated other comprehensive income (loss) for the years ended December 31, 2019, 2018 and 2017:

Details about accumulated other comprehensive income (loss)	Amount reclassified from accumulated other comprehensive income (loss)			Affected line item in statement of income
	2019	2018	2017	
Realized net holding (losses) gains on available-for-sale securities	\$ (26)	\$ 3	\$ 1,580	Net gain on sale of investment securities
Other-than-temporary impairment losses on investment securities	—	—	(80)	Net other-than-temporary impairment losses on investment securities
Net (loss) gain on sale of investment securities	(26)	3	1,500	
Tax effect*	5	(1)	(510)	Provision for income taxes
Total reclassification out of accumulated other comprehensive (loss) income, net of tax	<u>\$ (21)</u>	<u>\$ 2</u>	<u>\$ 990</u>	Net of tax

\*At rate of 21% for both 2019 and 2018 and 34% for 2017

## Note 17 - Fair Value Measurements and Fair Values of Financial Instruments

Financial Accounting Standards Board (“FASB”) ASC 820, *Fair Value Measurements and Disclosures*, defines fair value as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants (fair values are not adjusted for transaction costs). ASC 820 also establishes a framework (fair value hierarchy) for measuring fair value under GAAP and expands disclosures about fair value measurements.

ASC 820 establishes a fair value hierarchy that prioritizes the inputs to valuation methods used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are as follows:

- Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
- Level 2: Quoted prices in markets that are not active, or inputs that are observable either directly or indirectly, for substantially the full term of the asset or liability.
- Level 3: Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported with little or no market activity).

An asset's or liability's level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement.

The measurement of fair value should be consistent with one of the following valuation techniques: market approach, income approach, and/or cost approach. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities (including a business). For example, valuation techniques consistent with the market approach often use market multiples derived from a set of comparables. Multiples might lie in ranges with a different multiple for each comparable. The selection of where within the range the appropriate multiple falls requires judgment, considering factors specific to the measurement (qualitative and quantitative). Valuation techniques consistent with the market approach include matrix pricing. Matrix pricing is a mathematical technique used principally to value debt securities without relying exclusively on quoted prices for the specific securities, but rather by relying on the security's relationship to other benchmark quoted securities.

For financial assets measured at fair value on a recurring and nonrecurring basis, the fair value measurements by level within the fair value hierarchy used were as follows:

December 31, 2019	Quoted prices in active markets for identical assets (Level 1)	Significant other observable input (Level 2)	Significant unobservable inputs (Level 3)	Balance at end of period
<b>Recurring fair value measurements</b>				
Securities available-for-sale				
U.S. Government agency securities	\$ —	\$ 69,298	\$ —	\$ 69,298
State and municipal securities	—	50,781	—	50,781
U.S. Government agencies and sponsored enterprises (GSEs):				
Mortgage-backed securities	—	134,829	—	134,829
Collateralized mortgage obligations (CMOs)	—	86,610	—	86,610
Pooled trust preferred securities	—	—	79	79
Corporate debt securities	—	8,113	—	8,113
Total securities available-for-sale	—	349,631	79	349,710
Equity securities	9,164	—	—	9,164
Total recurring fair value measurements	<u>\$ 9,164</u>	<u>\$ 349,631</u>	<u>\$ 79</u>	<u>\$ 358,874</u>
<b>Nonrecurring fair value measurements *</b>				
Impaired loans	\$ —	\$ —	\$ 5,212	\$ 5,212
Mortgage servicing rights	—	—	7	7
Total nonrecurring fair value measurements	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 5,219</u>	<u>\$ 5,219</u>

\* *impairment*



December 31, 2018	Quoted prices in active markets for identical assets (Level 1)	Significant other observable input (Level 2)	Significant unobservable inputs (Level 3)	Balance at end of period
<b>Recurring fair value measurements</b>				
Securities available-for-sale				
U.S. Government agency securities	\$ —	\$ 68,409	\$ —	\$ 68,409
State and municipal securities	—	66,313	—	66,313
U.S. Government agencies and sponsored enterprises (GSEs):				
Mortgage-backed securities	—	125,913	—	125,913
Collateralized mortgage obligations (CMOs)	—	75,491	—	75,491
Pooled trust preferred securities	—	—	116	116
Corporate debt securities	—	7,979	—	7,979
Total securities available-for-sale	—	344,105	116	344,221
Equity securities	9,421	—	—	9,421
Total recurring fair value measurements	<u>\$ 9,421</u>	<u>\$ 344,105</u>	<u>\$ 116</u>	<u>\$ 353,642</u>
<b>Nonrecurring fair value measurements *</b>				
Impaired loans	\$ —	\$ —	\$ 3,055	\$ 3,055
Mortgage servicing rights	—	—	5	5
Total nonrecurring fair value measurements	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 3,060</u>	<u>\$ 3,060</u>

\* *impairment*

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

December 31, 2019	Quantitative information about Level 3 fair value measurements			
	Fair value	Valuation techniques	Unobservable input	Value or range of values
Impaired loans	\$ 4,655	Appraisal of collateral (1)	Appraisal adjustments (2)	-5% to -40%
			Liquidation expenses (3)	-10%
Impaired loans	521	Financial statement values for UCC collateral	Financial statement (5) value discounts	-30 to -100%
Impaired loans	36	Used commercial vehicle guides	Guide value discounts (4)	-30%
Mortgage servicing rights	7	Discounted cash flow	Remaining term Discount rate	2 - 27 yrs 12.0% to 12.5%

Quantitative information about Level 3 fair value measurements				
December 31, 2018	Fair value	Valuation techniques	Unobservable input	Value or range of values
Impaired loans	\$ 1,632	Appraisal of collateral(1)	Appraisal adjustments(2)	-20% to -90%
			Liquidation expenses(3)	-10%
Impaired loans	1,415	Financial statement values for UCC collateral	Financial statement(5)	-25% to -100%
Impaired loans	8	Used commercial vehicle guides	Guide value discounts(4)	-10%
Mortgage servicing rights	5	Discounted cash flow	Remaining term	2 - 26 yrs
			Discount rate	12.0% to 12.5%

- (1) Fair value is primarily determined through appraisals of the underlying collateral by independent parties, which generally includes various level 3 inputs which are not always identifiable.
- (2) Appraisals may be adjusted by management for qualitative factors such as economic conditions and the age of the appraisal. The range is presented as a percent of the initial appraised value.
- (3) Appraisals and pending agreements of sale are adjusted by management for estimated liquidation expenses. The range is presented as a percent of the initial appraised value.
- (4) If lendable value (lower than wholesale) is utilized then no additional discounts are taken. If lendable value is not provided, then additional discounts are applied.
- (5) Values obtained from financial statements for UCC collateral (fixed assets and inventory) are discounted to estimated realizable liquidation value.

The following table presents additional information about the securities available-for-sale measured at fair value on a recurring basis and for which QNB utilized significant unobservable inputs (Level 3 inputs) to determine fair value for the year ended December 31:

Securities available-for-sale	Fair value measurements using significant unobservable inputs (Level 3)	
	2019	2018
Balance, beginning of year	\$ 116	\$ 215
Payments received	(37)	(119)
Sale of securities	—	—
Total gains or losses (realized/unrealized)		
Included in earnings	—	—
Included in other comprehensive income	—	20
Transfers in and/or out of Level 3	—	—
Balance, end of year	<u>\$ 79</u>	<u>\$ 116</u>

There were also no transfers in or out of level 3 for the same periods. There was \$0 and \$0 in losses included in earnings attributable to the change in unrealized gains or losses relating to the available-for-sale securities above with fair value measurements utilizing significant unobservable inputs for the years ended December 31, 2019 and 2018, respectively.

The Level 3 securities consist of one collateralized debt obligation security (“PreTSL”), which is backed by trust preferred securities issued by banks. The market for this security at December 31, 2019 was not active and markets for similar securities also are not active. The new issue market is also inactive and there are currently very few market participants who are willing and or able to transact for these securities.

Given conditions in the debt markets today and the absence of observable transactions in the secondary and new issue markets, we determined:

- The few observable transactions and market quotations that are available are not reliable for purposes of determining fair value at December 31, 2019;

- An income valuation approach technique (present value technique) that maximizes the use of relevant observable inputs and minimizes the use of unobservable inputs will be equally or more representative of fair value than the market approach valuation technique used at prior measurement dates; and
- PreTSLs will be classified within Level 3 of the fair value hierarchy because significant adjustments are required to determine fair value at the measurement date.

The Bank used an independent third party to value this security using a discounted cash flow analysis. Based on management's review of the bond's single underlying issuer, there are no expected credit losses or prepayments; cashflows used were contractual based on the Bloomberg YA screen. The assumed cashflows have been discounted using an estimated market discount rate based on the 30-year swap rate. The 30-year is used as the reference rate since it is indicative of market expectation for short-term rates in the future. This is consistent with the 30-year nature of PreTSL securities, which are priced using the 3-month LIBOR as a reference rate. The discount rate of 5.33% includes the risk-free rate, a credit component and a spread for illiquidity.

The following information should not be interpreted as an estimate of the fair value of the entire Company since a fair value calculation is only provided for a limited portion of QNB's assets and liabilities. Due to a wide range of valuation techniques and the degree of subjectivity used in making the estimates, comparisons between QNB's disclosures and those of other companies may not be meaningful.

The following methods and assumptions were used to estimate the fair values of each major classification of financial instrument and non-financial asset at December 31, 2019 and 2018:

Cash and cash equivalents, accrued interest receivable and accrued interest payable (carried at cost): The carrying amounts reported in the balance sheet approximate those assets' fair value.

Investment securities: trading (carried at fair value), held-to-maturity (carried at amortized cost), available-for-sale (carried at fair value) and equity investments with readily determinable fair values (carried at fair value): The fair value of securities are determined by obtaining quoted market prices on nationally recognized securities exchanges (Level 1), or matrix pricing (Level 2), which is a mathematical technique used widely in the industry to value debt securities without relying exclusively on quoted market prices for the specific securities but rather by relying on the securities' relationship to other benchmark quoted prices. Level 2 debt securities are valued by a third-party pricing service commonly used in the banking industry. Level 2 fair value measurements consider observable data that may include dealer quotes, market spreads, cash flows, the U.S. Treasury yield curve, live trading levels, trade execution date, market consensus prepayment speeds, credit information and the security's terms and conditions, among other things. For certain securities which are not traded in active markets or are subject to transfer restrictions, valuations are adjusted to reflect illiquidity and/or non-transferability, and such adjustments are generally based on available market evidence (Level 3). In the absence of such evidence, management's best estimate is used. Management's best estimate consists of both internal and external support on certain Level 3 investments. Cash flow models using a present value formula that includes assumptions market participants would use along with indicative exit pricing obtained from broker/dealers (where available) were used to support fair values of certain Level 3 investments.

Restricted investment in stocks (carried at cost): The fair value of stock in Atlantic Community Bankers Bank and the Federal Home Loan Bank and VISA Class B is the carrying amount, based on redemption provisions, and considers the limited marketability of such securities.

Loans Held for Sale (carried at lower of cost or fair value): The fair value of loans held for sale is determined, when possible, using quoted secondary market prices. If no such quoted prices exist, the fair value of a loan is determined using quoted prices for a similar loan or loans, adjusted for the specific attributes of that loan.

Loans Receivable (carried at cost): The fair values of loans are estimated using discounted cash flow analyses, using market rates at the balance sheet date that reflect the credit and interest rate-risk inherent in the loans. Projected future cash flows are calculated based upon contractual maturity or call dates, projected repayments and prepayments of principal. Generally, for variable rate loans that reprice frequently and with no significant change in credit risk, fair values are based on carrying values.

Impaired Loans (generally carried at fair value): Impaired loans are loans in which the Company has measured impairment generally based on the fair value of the loan's collateral. Fair value is generally determined based upon independent third-party appraisals of the properties, or discounted cash flows based upon the expected proceeds. These assets are included as Level 3 fair values, based upon the lowest level of input that is significant to the fair value measurements. None of the impaired loans at December 31, 2019 or 2018, respectively, that had specific reserves required were partially charged-off at year end.

Mortgage Servicing Rights (carried at lower of cost or fair value): The fair value of mortgage servicing rights is based on a valuation model that calculates the present value of estimated net servicing income. The mortgage servicing rights are stratified into tranches

based on predominant characteristics, such as interest rate, loan type and investor type. The valuation incorporates assumptions that market participants would use in estimating future net servicing income.

Deposit liabilities (carried at cost): The fair value of deposits with no stated maturity (e.g. demand deposits, interest-bearing demand accounts, money market accounts and savings accounts) are by definition, equal to the amount payable on demand at the reporting date (i.e. their carrying amounts). This approach to estimating fair value excludes the significant benefit that results from the low-cost funding provided by such deposit liabilities, as compared to alternative sources of funding. Deposits with a stated maturity (time deposits) have been valued using the present value of cash flows discounted at rates approximating the current market for similar deposits.

Short-term borrowings (carried at cost): The carrying amount of short-term borrowings approximates their fair values.

Off-balance-sheet instruments (disclosed at cost): The fair value for the Bank's off-balance sheet instruments (lending commitments and letters of credit) are based on fees currently charged in the market to enter into similar agreements, taking into account, the remaining terms of the agreements and the counterparties' credit standing.

Management uses its best judgment in estimating the fair value of the Company's financial instruments; however, there are inherent weaknesses in any estimation technique. Therefore, for substantially all financial instruments, the fair value estimates herein are not necessarily indicative of the amounts the Company could have realized in a sales transaction on the dates indicated. The estimated fair value amounts have been measured as of the respective period ends and have not been re-evaluated or updated for purposes of these financial statements subsequent to those respective dates. As such, the estimated fair values of these financial instruments subsequent to the respective reporting dates may be different than the amounts reported at each year end.

The estimated fair values and carrying amounts of the Company's financial and off-balance sheet instruments are summarized as follows:

December 31, 2019	Carrying amount	Fair value	Fair value measurements		
			Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
<b>Financial assets</b>					
Cash and cash equivalents	\$ 17,608	\$ 17,608	\$ 17,608	\$ —	\$ —
Investment securities:					
Available-for-sale	349,710	349,710	—	349,631	79
Equity	9,164	9,164	9,164	—	—
Restricted investment in bank stocks	1,073	1,073	—	1,073	—
Loans held for sale	977	997	—	997	—
Net loans	810,729	825,295	—	—	825,295
Mortgage servicing rights	441	551	—	—	551
Accrued interest receivable	2,828	2,828	—	2,828	—
<b>Financial liabilities</b>					
Deposits with no stated maturities	\$ 802,284	\$ 802,284	\$ 802,284	\$ —	\$ —
Deposits with stated maturities	235,576	235,557	—	235,557	—
Short-term borrowings	55,931	55,931	55,931	—	—
Accrued interest payable	909	909	—	909	—
<b>Off-balance sheet instruments</b>					
Commitments to extend credit	\$ —	\$ —	\$ —	\$ —	\$ —
Standby letters of credit	—	47	—	47	—

December 31, 2018	Fair value measurements				
	Carrying amount	Fair value	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
<b>Financial assets</b>					
Cash and cash equivalents	\$ 13,458	\$ 13,458	\$ 13,458	\$ —	\$ —
Investment securities:					
Available-for-sale	344,221	344,221	—	344,105	116
Equities	9,421	9,421	9,421	—	—
Restricted investment in bank stocks	797	797	—	797	—
Net loans	776,614	771,685	—	—	771,685
Mortgage servicing rights	451	604	—	—	604
Accrued interest receivable	2,852	2,852	—	2,852	—
<b>Financial liabilities</b>					
Deposits with no stated maturities	\$ 791,810	\$ 791,810	\$ 791,810	\$ —	\$ —
Deposits with stated maturities	223,788	220,876	—	220,876	—
Short-term borrowings	50,872	50,872	50,872	—	—
Accrued interest payable	449	449	—	449	—
<b>Off-balance sheet instruments</b>					
Commitments to extend credit	\$ —	\$ —	\$ —	\$ —	\$ —
Standby letters of credit	—	31	—	31	—

#### Note 18 - Revenue Recognition from Contracts with Customer

The Company generally fully satisfies its performance obligations on its contracts with customers as services are rendered and the transaction prices are typically fixed; charged either on a periodic basis or based on activity. Because performance obligations are satisfied as services are rendered and the transaction prices are fixed, there is little judgment involved in applying Topic 606 that significantly affects the determination of the amount and timing of revenue from contracts with customers. The main types of revenue contracts included in non-interest income within the consolidated statements of operations are as follows:

- Fees for services to customers—fees include service charges on deposits which are included as liabilities in the consolidated statement of financial position and consist of transaction-based fees, stop payment fees, Automated Clearing House (ACH) fees, account maintenance fees, and overdraft services fees for various retail and business checking customers. These fees are charged as earned on the day of the transaction or within the month of the service, with the exception of Enhanced Account Analysis Fees, which are calculated on the previous month's activity and assessed on the following month. The Enhanced Account Analysis Fees are currently being accrued; the revenue is currently being recorded in the month it is earned. Service charges on deposits are withdrawn directly from the customer's account balance.
- ATM and debit card – fees are recognized at the time the transaction is executed as that is the point in time the Company fulfills the customer's request.
- Retail brokerage and advisory—fee income and related expenses are accrued monthly to properly record the revenues in the month they are earned. Advisory fees are collected in advance on a quarterly basis. These advisory fees are recorded in the first month of the quarter for which the service is being performed. Fees that are transaction based are recognized at the point in time that the transaction is executed (i.e. trade date).
- Merchant – QNB earns interchange fees from credit/debit cardholder transactions conducted through VISA/MasterCard payment networks. Interchange fees from cardholder transactions represent a percentage of the underlying transaction value and are recognized monthly, concurrently with the transaction processing services provided to the cardholder within the month.
- Other—includes credit card fees, sales of checks to depositors, miscellaneous fees and gain/losses on sale of OREO.
  - Credit card fees are recognized monthly, concurrently with the transaction processing services provided to the cardholder within the month.

- Sales of checks to depositors are commissions earned from a third-party who provides checks to QNB's customers. There is a pre-paid incentive with the third party which is recognized over the term of the contract. Other commissions on the sales of checks are recorded weekly.
- Miscellaneous fees, such as wire, cashier check and garnishment fees, are charged as earned on the day of the transaction.
- Gain (loss) on sales of OREO – QNB records a gain or loss from the sale of OREO when control of the property transfers to the buyer, which generally occurs at the time of an executed deed. When the QNB finances the sale of OREO to the buyer, QNB assesses whether the buyer is committed to perform their obligations under the contract and whether collectability of the transaction price is probable. Once these criteria are met, the OREO asset is derecognized and the gain or loss on sale is recorded upon the transfer of control of the property to the buyer. In determining the gain or loss on the sale, QNB adjusts the transaction prices and related gain (loss) on sale if a significant financing component is present.

## Note 19 - Parent Company Financial Information

Condensed financial statements of QNB Corp. only:

<b>Balance Sheets</b>		
<b>December 31,</b>	<b>2019</b>	<b>2018</b>
<b>Assets</b>		
Cash and cash equivalents	\$ 3,616	\$ 72
Investment equity securities	9,164	9,421
Investment in subsidiary	108,694	94,477
Other assets	27	379
<b>Total assets</b>	<b>\$ 121,501</b>	<b>\$ 104,349</b>
<b>Liabilities</b>		
Other liabilities	\$ 784	\$ 1
<b>Shareholders' equity</b>		
	120,717	104,348
<b>Total liabilities and shareholders' equity</b>	<b>\$ 121,501</b>	<b>\$ 104,349</b>

<b>Statements of Income</b>			
<b>Year ended December 31,</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
Dividends from subsidiary	\$ 3,820	\$ 4,027	\$ 3,382
Interest, dividend and other income	292	266	183
Securities gains (losses)	1,781	(79)	1,477
Net unrealized gain (loss) on investment equity securities	770	(336)	—
<b>Total income</b>	<b>6,663</b>	<b>3,878</b>	<b>5,042</b>
Expenses	420	513	301
<b>Income before applicable income taxes and equity in undistributed income of subsidiary</b>	<b>6,243</b>	<b>3,365</b>	<b>4,741</b>
Provision (benefit) for income taxes	714	(256)	554
<b>Income before equity in undistributed income of subsidiary</b>	<b>5,529</b>	<b>3,621</b>	<b>4,187</b>
Equity in undistributed income of subsidiary	6,828	7,714	4,102
<b>Net income</b>	<b>\$ 12,357</b>	<b>\$ 11,335</b>	<b>\$ 8,289</b>

**Statements of Comprehensive  
Income**

Year ended December 31,	(in thousands)								
	2019			2018			2017		
	Before tax amount	Tax expense (benefit)	Net of tax amount	Before tax amount	Tax expense (benefit)	Net of tax amount	Before tax amount	Tax expense (benefit)	Net of tax amount
Net income	\$ 15,207	\$ 2,850	\$ 12,357	\$ 12,892	\$ 1,557	\$ 11,335	\$ 14,189	\$ 5,900	\$ 8,289
Other comprehensive income gain (loss):									
Net unrealized holding gains (losses) on securities:									
Unrealized holding gains (losses) arising during the period	9,327	1,959	7,368	(3,156)	(663)	(2,493)	1,002	341	661
Reclassification adjustment for losses (gains) included in net income	26	5	21	(3)	(1)	(2)	(1,500)	(510)	(990)
	9,353	1,964	7,389	(3,159)	(664)	(2,495)	(498)	(169)	(329)
Total comprehensive income	<u>\$ 24,560</u>	<u>\$ 4,814</u>	<u>\$ 19,746</u>	<u>\$ 9,733</u>	<u>\$ 893</u>	<u>\$ 8,840</u>	<u>\$ 13,691</u>	<u>\$ 5,731</u>	<u>\$ 7,960</u>

**Statements of Cash Flows**

Year ended December 31,	2019	2018	2017
<b>Operating Activities</b>			
Net income	\$ 12,357	\$ 11,335	\$ 8,289
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in undistributed income from subsidiary	(6,828)	(7,714)	(4,102)
Net securities (gains) losses	(1,781)	79	(1,477)
Net unrealized (gain) loss on investment equity securities	(770)	336	—
Stock-based compensation expense	118	117	102
Accretion of discounts on investment securities	(45)	—	—
Increase (decrease) in other liabilities	762	(403)	335
Decrease (increase) in other assets	126	(147)	(3)
Deferred income tax provision (benefit)	247	(158)	98
Net cash provided by operating activities	<u>4,186</u>	<u>3,445</u>	<u>3,242</u>
<b>Investing activities</b>			
Purchase of investment equity securities	(9,030)	(9,763)	(9,998)
Purchase of investment securities available-for-sale	(8,730)	—	—
Proceeds from sale of investment equity securities	11,838	4,902	14,422
Proceeds from sale of investment securities available-for-sale	8,775	—	—
Net cash provided (used) by investing activities	<u>2,853</u>	<u>(4,861)</u>	<u>4,424</u>
<b>Financing activities</b>			
Cash dividend paid	(4,086)	(3,863)	(3,731)
Proceeds from issuance of common stock	591	684	672
Net cash used by financing activities	<u>(3,495)</u>	<u>(3,179)</u>	<u>(3,059)</u>
Increase (decrease) cash and cash equivalents	3,544	(4,595)	4,607
Cash and cash equivalents at beginning of year	72	4,667	60
Cash and cash equivalents at end of year	<u>\$ 3,616</u>	<u>\$ 72</u>	<u>\$ 4,667</u>

**Note 20 - Regulatory Restrictions**

Dividends payable by the Company and the Bank are subject to various limitations imposed by statutes, regulations and policies adopted by bank regulatory agencies. Under Pennsylvania and Federal banking law, the Bank is subject to certain restrictions on the amount of dividends that it may declare without prior regulatory approval. Under Federal Reserve regulations, the Bank is limited as to the amount it may lend affiliates, including the Company, unless such loans are collateralized by specific obligations.

Both the Company and the Bank are subject to regulatory capital requirements administered by Federal bank regulatory agencies. Failure to meet minimum capital requirements can initiate actions by regulators that could have an effect on the financial statements. Under the framework for prompt corrective action, both the Company and the Bank must meet capital guidelines that involve quantitative measures of their assets, liabilities, and certain off-balance-sheet items. The final rules implementing the Basel Committee on Banking Supervision’s capital guidelines for U.S. banks (“Basel III”) became effective for QNB on January 1, 2015, and compliance was fully phased-in on January 1, 2019.

On May 24, 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act (the “Act”), was enacted into law. Section 214 of the Act prescribes that the Federal banking agencies may only require depository institutions to apply a heightened risk-weight to exposures that are “high volatility commercial real estate” (“HVCRE”) if the exposures meet the definition of a HVCRE Acquisition, Development or Construction (“ADC”) loan as set forth in that section. The new definition applies to a narrower scope of exposures. The new definition of HVCRE ADC loan excludes loans made prior to January 1, 2015, amends the loan-to-value/capital contribution exemption, specifies the loan must primarily finance the property, has the purpose of providing financing to acquire, develop or improve such real property in income-producing property and is dependent upon future income or sales proceeds or refinancing of such property to repay the loan. Once the property sufficiently produces cashflows to support the debt service and expenses in accordance with the bank’s underwriting criteria for permanent financing, the loan meets the exemption as a HVCRE ADC loan. The new definition was applicable for QNB’s reporting of its Regulatory Capital Ratios for 2018 and had a positive impact of approximately five basis points to the ratios.

The capital amounts and classification are also subject to qualitative judgments by the regulators. Management believes, as of December 31, 2019, that the Company and the Bank met capital adequacy requirements to which they were subject.

The Bank is presently considered to be “well capitalized” under the regulatory framework. To be categorized as well capitalized, the Company and the Bank must maintain minimum ratios set forth in the table below. The Company and the Bank’s actual capital amounts and ratios are presented as follows:

As of December 31, 2019	Capital levels					
	Actual		Adequately capitalized		Well capitalized	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
<b>Total risk-based capital (to risk-weighted assets):</b>						
Consolidated	\$ 130,412	13.82%	\$ 75,498	8.00%	\$ 94,373	10.00%
Bank	118,389	12.93	73,270	8.00	91,587	10.00
<b>Tier I capital (to risk-weighted assets):</b>						
Consolidated	120,452	12.76	56,624	6.00	56,624	6.00
Bank	108,429	11.84	54,952	6.00	73,270	8.00
<b>Common equity tier 1 capital (to risk-weighted assets):</b>						
Consolidated	120,452	12.76	42,468	4.50	N/A	N/A
Bank	108,429	11.84	41,214	4.50	59,532	6.50
<b>Tier I capital (to average assets):</b>						
Consolidated	120,452	9.78	49,283	4.00	N/A	N/A
Bank	108,429	8.89	48,804	4.00	61,005	5.00



As of December 31, 2018	Capital levels					
	Actual		Adequately capitalized		Well capitalized	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
Total risk-based capital (to risk-weighted assets):						
Consolidated	\$ 120,379	13.21%	\$ 72,910	8.00%	\$ 91,137	10.00%
Bank	110,508	12.52	70,619	8.00	88,273	10.00
Tier I capital (to risk-weighted assets):						
Consolidated	111,472	12.23	54,682	6.00	54,682	6.00
Bank	101,601	11.51	52,964	6.00	70,619	8.00
Common equity tier 1 capital (to risk-weighted assets):						
Consolidated	111,472	12.23	41,012	4.50	N/A	N/A
Bank	101,601	11.51	39,723	4.50	57,378	6.50
Tier I capital (to average assets):						
Consolidated	111,472	9.40	47,458	4.00	N/A	N/A
Bank	101,601	8.64	47,045	4.00	58,807	5.00

**Note 21 - Consolidated Quarterly Financial Data (Unaudited)**

The unaudited quarterly results of operations for the years ended 2019 and 2018 are in the following table:

	Quarters Ended 2019				Quarters Ended 2018			
	March 31	June 30	Sept. 30	Dec. 31	March 31	June 30	Sept. 30	Dec. 31
Interest income	\$ 11,289	\$ 11,712	\$ 11,817	\$ 11,600	\$ 10,509	\$ 10,562	\$ 10,926	\$ 11,203
Interest expense	2,453	2,601	2,635	2,435	1,718	1,862	2,222	2,383
Net interest income	8,836	9,111	9,182	9,165	8,791	8,700	8,704	8,820
Provision for (credit to)								
loan losses	225	150	550	375	188	187	568	187
Non-interest income	2,309	1,654	2,144	2,210	1,067	1,454	2,227	144
Non-interest expense	6,724	6,793	6,955	7,632	6,178	6,533	6,385	6,789
Income before income taxes	4,196	3,822	3,821	3,368	3,492	3,434	3,978	1,988
Provision for income taxes	817	679	731	623	557	572	767	(339)
Net Income	<u>\$ 3,379</u>	<u>\$ 3,143</u>	<u>\$ 3,090</u>	<u>\$ 2,745</u>	<u>\$ 2,935</u>	<u>\$ 2,862</u>	<u>\$ 3,211</u>	<u>\$ 2,327</u>
Earnings Per Share - basic *	\$ 0.97	\$ 0.90	\$ 0.88	\$ 0.78	\$ 0.85	\$ 0.83	\$ 0.93	\$ 0.67
Earnings Per Share - diluted *	\$ 0.97	\$ 0.90	\$ 0.88	\$ 0.78	\$ 0.85	\$ 0.82	\$ 0.92	\$ 0.67

\* Due to rounding, quarterly earnings per share may not sum to annual earnings per share

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

None.

### **ITEM 9A. CONTROLS AND PROCEDURES**

#### *a) Evaluation of Disclosure Controls and Procedures*

Under the supervision and with the participation of QNB's Chief Executive Officer, or CEO, and Chief Financial Officer, or CFO (its principal executive officer and principal financial officer), management has evaluated the effectiveness of the design and operation of QNB's disclosure controls and procedures as of December 31, 2019. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives.

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934, as amended, or the Exchange Act, is recorded, processed, summarized and reported within the time periods required by the Securities and Exchange Commission, or the SEC, and that such information is accumulated and communicated to QNB's management, including the CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Based on and as of the date of such evaluation, our CEO and CFO concluded that the design and operation of our disclosure controls and procedures were effective as of the end of the period covered by this Report.

#### *b) Internal Control over Financial Reporting*

Information required by this item is set forth in Management's Report and Report of Independent Registered Public Accounting Firm, both of which are incorporated by reference into this item.

#### *c) Changes in Internal Control over Financial Reporting*

On May 14, 2013, COSO issued an updated version of its Internal Control – Integrated Framework, referred to as the 2013 COSO Framework. Management's assessment of the overall effectiveness of our internal controls over financial reporting for the year ended December 31, 2019 was based on the 2013 COSO Framework.

There were no changes to the Company's internal controls over financial reporting (as defined in Rule 13a-15(f) of the Securities Exchange Act) during the quarter ended December 31, 2019 that materially affected, or are reasonably likely to materially affect, the Company's control over financial reporting.

### **ITEM 9B. OTHER INFORMATION**

None.

## PART III

### ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by Item 10 is incorporated by reference to information appearing in QNB Corp.'s definitive proxy statement to be used in connection with the 2020 Annual Meeting of Shareholders under the captions:

- “Election of Directors”
- “Governance of the Company - Code of Ethics”
- “Meetings and Committees of the Board of Directors of QNB and the Bank”
- “Executive Officers of QNB and/or the Bank”

The Company has adopted a Code of Business Conduct and Ethics applicable to its CEO, CFO and Controller as well as its long-standing Code of Ethics which applies to all directors and employees. The codes are available on the Company's website at [www.qnbbank.com](http://www.qnbbank.com).

### ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 is incorporated by reference to the information appearing in QNB Corp.'s definitive proxy statement to be used in connection with the 2020 Annual Meeting of Shareholders under the captions:

- “Compensation Committee Report”
- “Executive Compensation”
- “Director Compensation”
- “Compensation Tables”

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

#### Equity Compensation Plan Information

The following table summarizes QNB's equity compensation plan information as of December 31, 2019. Information is included for both equity compensation plans approved by QNB shareholders and equity compensation plans not approved by QNB shareholders.

Plan Category	Number of shares to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of shares available for future issuance under equity compensation plans [excluding securities reflected in column (a)]
	(a)	(b)	(c)
Equity compensation plans approved by QNB shareholders			
2005 Stock option plan	8,400	\$ 29.25	—
2015 Stock option plan	94,950	37.64	201,800
2016 Employee stock purchase plan	—	—	19,675
Equity compensation plans not approved by QNB shareholders			
None	—	—	—
<b>Total</b>	<b>103,350</b>	<b>\$ 36.96</b>	<b>221,475</b>

Additional information required by Item 12 is incorporated by reference to the information appearing in QNB Corp.'s definitive proxy statement to be used in connection with the 2020 Annual Meeting of Shareholders under the captions:

- “Security Ownership of Certain Beneficial Owners and Management”

### **ITEM 13. CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information required by Item 13 is incorporated by reference to the information appearing in QNB Corp.'s definitive proxy statement to be used in connection with the 2020 Annual Meeting of Shareholders under the captions:

- “Certain Relationships and Related Party Transactions”
- “Governance of the Company - Director Independence”

### **ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES**

The information required by Item 14 is incorporated by reference to the information appearing in QNB Corp.'s definitive proxy statement to be used in connection with the 2020 Annual Meeting of Shareholders under the captions:

- “Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Auditors”
- “Audit Fees, Audit Related Fees, Tax Fees, and All Other Fees”

## **PART IV**

### **ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES**

#### (a) 1. Financial Statements

The following financial statements are included by reference in Part II, Item 8 hereof.

- Report of Independent Registered Public Accounting Firm
- Consolidated Balance Sheets
- Consolidated Statements of Income
- Consolidated Statements of Comprehensive Income (Loss)
- Consolidated Statements of Shareholders' Equity
- Consolidated Statements of Cash Flows
- Notes to Consolidated Financial Statements

#### 2. Financial Statement Schedules

The financial statement schedules required by this Item are omitted because the information is either inapplicable, not required or is in the consolidated financial statements as a part of this Report.

3. The following exhibits are incorporated by reference herein or filed with this Form 10-K:

- 3.1- Articles of Incorporation of Registrant, as amended. (Incorporated by reference to Exhibit 3(i) of Registrant's Annual Report on Form 10-K, SEC File No. 0-17706, filed with the Commission on March 13, 2015)
- 3.2- By-laws of Registrant, as amended. (Incorporated by reference to Exhibit 3(ii) of Registrant's Annual Report on Form 10-K, SEC File No. 0-17706, filed with the Commission on March 13, 2015)
- 4.1- Description of Capital Securities
- 10.1- QNB Corp. 2005 Stock Incentive Plan. (Incorporated by reference to Exhibit B to QNB's Proxy Statement, filed April 15, 2005)
- 10.2- Employment Agreement between Registrant and David W. Freeman. (Incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K, SEC File No. 0-17706, filed with the Commission on December 28, 2012)
- 10.3- Change of Control Agreement between Registrant and Scott G. Orzechoski. (Incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K, SEC File No. 0-17706, filed with the Commission on November 9, 2011)
- 10.4- Change of Control Agreement between Registrant and Dale A. Westwood (fka Wentz). (Incorporated by reference to Exhibit 10.9 of Registrant's Annual Report on Form 10-K, SEC File No. 0-17706, filed with the Commission on March 29, 2013)
- 10.5- Change of Control Agreement between Registrant and Janice McCracken Erkes. (Incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K, SEC File No. 0-17706, filed with the Commission on September 8, 2014)
- 10.6- Change of Control Agreement between Registrant and Christopher T. Cattie. (Incorporated by reference to Exhibit 10.9 of Registrant's Annual Report on Form 10-K, SEC File No. 0-17706, filed with the Commission on March 14, 2016)
- 10.7- QNB Corp 2015 Stock Incentive Plan (Incorporated by reference to Exhibit A to QNB Corp.'s proxy statement, filed April 15, 2015)
- 10.8- QNB Corp. 2016 Employee Stock Purchase Plan. (Incorporated by reference to Exhibit A to QNB Corp.'s proxy statement, filed with the Commission on April 12, 2016)
- 21- Subsidiaries of the Registrant
- 23.1- Consent of Independent Registered Public Accounting Firm
- 31.1- Section 302 Certification of the Chief Executive Officer
- 31.2- Section 302 Certification of the Chief Financial Officer
- 32.1- Section 906 Certification of the Chief Executive Officer
- 32.2- Section 906 Certification of the Chief Financial Officer

The following Exhibits are being furnished \* as part of this report:

No.	Description
101.INS	XBRL Instance Document *
101.SCH	XBRL Taxonomy Extension Schema Document *
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document *
101.LAB	XBRL Taxonomy Extension Label Linkbase Document *
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document *
101.DEF	XBRL Taxonomy Extension Definitions Linkbase Document *

\* These interactive data files are being furnished as part of this Annual Report, and, in accordance with Rule 402 of Regulation S-T, shall not be deemed filed for purposes of Section 11 or 12 of the Securities Act of 1933, as amended, or Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liability under those sections.





## Exhibit 4.1

### DESCRIPTION OF CAPITAL SECURITIES

As of March 1, 2020, QNB Corp. (the “Company”) had one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: common stock, \$0.625 par value per share (the “Common Stock”). The following summarizes the provisions of the Common Stock under the articles of incorporation and bylaws of the Company and under the provisions of the Pennsylvania Business Corporation Law of 1988, as amended (the “PBCL”). The summary should be read in conjunction to the complete text of the articles of incorporation and bylaws and the PBCL.

#### *Authorized Shares of Capital Stock*

The authorized capital stock consists of 10,000,000 shares of Common Stock.

#### *Common Stock*

##### *Voting Rights*

Holders of Common Stock are entitled to one vote for every share having voting power on all matters submitted for action by the shareholders. Holders of Common Stock do not have cumulative voting rights in the election of directors.

The Company’s articles of incorporation generally provide that any merger, consolidation, sale of substantially all of the Corporation’s assets, or other “Business Combination” transaction more fully described below, must be approved by the affirmative vote of not less than 75% of the Company’s then outstanding voting stock. Under the articles of incorporation, the 75% affirmative shareholder vote would not be required if: (a) a majority of the board of directors has given prior approval to the acquisition by the Related Person (as defined below) involved in the Business Combination of 20% or more of the outstanding shares of Common Stock which resulted in that person becoming a Related Person; or (b) a majority of the board of directors has approved the Business Combination prior to the time that the person became a Related Person.

The term “Business Combination” means:

- any merger or consolidation of the Company or a subsidiary with or into a Related Person;
- any sale, lease, exchange, transfer or other disposition, including without limitation mortgage or any other security device of all or any substantial part of the assets of the Company (including without limitation any securities of a subsidiary) or of a subsidiary, to a Related Person;
- any merger or consolidation of a Related Person with or into the Company or a subsidiary;
- any sale, lease, exchange, transfer or other disposition of all or any substantial part of the assets of a Related Person to the Company or a subsidiary;
- the issuance of any securities of the Company or a subsidiary to a Related Person;
- the acquisition by the Company or a subsidiary of any securities of a Related Person;

- any reclassification of voting stock of the Corporation, or any recapitalization involving voting stock of the Corporation, consummated within five years after a Related Person became a Related Person;
- any loan or other extension of credit by the Company or a subsidiary to the Related Person or any guarantees by the Company or a subsidiary of any loan or other extension of credit by any person to a Related Person; and
- any agreement, contract or other arrangement provided for any of the transactions described in this definition of Business Combination.

“Related Person” means any individual, corporation, partnership or other person or entity which, together with its “affiliates” and “associates” (as those terms are defined in the Company’s articles of incorporation) is the beneficial owner, directly or indirectly, of 20% or more of the Company’s outstanding voting stock.

#### *Dividends and Distributions*

Holders of Common Stock are entitled to dividends and other distributions ratably as and when declared by the board of directors of the Company from assets legally available therefor. Specifically, dividends may be paid in cash, property or shares of Common Stock, unless the Company is insolvent or the dividend payment would render it insolvent. Dividend payments and distributions are subject to other legal requirements and, generally, may be paid in cash or property provided that, after giving effect to the dividend or distribution, the total assets of the Company would not be less than the total liabilities of the Company plus the amount necessary to satisfy the preferential rights, if any, of shareholders whose preferential rights are superior to those receiving the dividend or distribution.

#### *Ranking*

Upon the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, after the payment in full of its debts and other liabilities, the remainder of its assets, if any, are to be distributed ratably among the holders of Common Stock.

#### *No Conversion Rights; No Preemptive Rights; No Redemption*

Holders of Common Stock have no preemptive or conversion rights and are not subject to further calls or assessment by the Company. There are no redemption or sinking fund provisions applicable to the Common Stock.

#### *Fully Paid and Nonassessable*

Outstanding shares of Common Stock are validly issued, fully-paid and nonassessable.

#### ***Anti-Takeover Provisions***

Certain provisions of the Company’s articles of incorporation, bylaws and the PBCL may have the effect of delaying, deferring, or preventing a change in control of the Company:

##### *Pennsylvania Anti-Takeover Provisions*

Certain anti-takeover provisions of the PBCL apply to Pennsylvania registered corporations (e.g., publicly traded companies) including those relating to (1) control share acquisitions, (2) disgorgement of

profits by certain controlling persons, (3) business combination transactions with interested shareholders, and (4) the rights of shareholders to demand fair value for their stock following a control transaction. Pennsylvania law allows corporations to opt-out of these anti-takeover sections under certain circumstances, but the Company has not opted out of any of these provisions. A general summary of these applicable anti-takeover provisions is set forth below.

*Control Share Acquisitions.* Pennsylvania law regarding control share acquisitions relates to the act of acquiring for the first time voting power over voting shares (other than (i) shares owned continuously by the same natural person since January 1, 1988, (ii) shares beneficially owned by any natural person or trust, estate, foundation or similar entity to the extent such shares were acquired solely by gift, inheritance, bequest, devise or other testamentary distribution, directly or indirectly, from a natural person who beneficially owned the shares prior to January 1, 1988 or (iii) shares acquired pursuant to a stock split, stock dividend or similar distribution with respect to shares that have been beneficially owned continuously since their issuance by the corporation by the shareholder that acquired them from the corporation or that were acquired from such shareholder pursuant to (ii) above) equal to: (a) at least 20% but less than 33 1/3%; (b) at least 33 1/3% but less than 50%; or (c) 50% or more of the voting power of the corporation. Once a control share acquisition has occurred, then all shares in excess of the triggering threshold, plus shares purchased at any time with the intention of acquiring such voting power or shares purchased within 180 days of the date the triggering threshold was exceeded, are considered control shares. Control shares cannot vote either until their voting rights have been restored by two separate votes of the shareholders, as described below, or until they have been transferred to a person who is not an affiliate of the transferor and does not thereby also become the holder of control shares.

The holder of control shares may wait until the next annual or special meeting after the acquisition took place to submit the question of the restoration of voting rights to the shareholders, or the acquiring person may accelerate the process by agreeing to underwrite the cost of a special meeting of shareholders for that purpose. In either case, the acquiring person is required to furnish for distribution to the shareholders an information statement containing a detailed disclosure concerning the acquiring person, its intentions with respect to ownership of securities of the corporation and other matters. As an alternative, a person submitting a bona fide written offer to make a control share acquisition may request prospective approval by the shareholders of the exercise of the voting rights of the shares proposed to be acquired, provided that the control share acquisition is consummated within 90 days after shareholder approval is obtained. Two shareholder votes are required to approve the restoration of voting rights. First, the approval of a majority of all voting power must be obtained. Second, the approval of a majority of all disinterested shareholders must be obtained.

For a period of 24 months after the later of (a) a control share acquisition by an acquiring person who does not properly request consideration of voting rights, or (b) the denial of such a request or lapse of voting rights, the corporation may redeem all the control shares at the average of the high and low public market sales price of the shares on the date notice of the call for redemption is given by the corporation.

*Disgorgement of Profits by Certain Controlling Persons.* Pennsylvania law regarding disgorgement of profits by certain controlling persons applies in the event that (a) any person or group directly or indirectly publicly discloses or causes to be disclosed that the person or group may seek to acquire control of the corporation, or (b) a person or group acquires, offers to acquire or directly or indirectly publicly discloses or causes to be disclosed an intent to acquire) 20% or more of the voting power of the corporation and, in either case, sells shares within 18 months thereafter. Any profits from sales of equity securities of the corporation received by the person or group during such 18-month period

will belong to the corporation if the securities that were sold were acquired during the 18-month period after or within 24 months prior to becoming a controlling person.

*Business Combination Transactions with Interested Shareholders.* Pennsylvania law regarding business combination transactions with interested shareholders provides that a person who acquires the direct or indirect beneficial ownership of shares entitled to cast at least 20% of the votes entitled to be cast for the election of directors or an affiliate or associate of the corporation who at any time within the prior five years was the beneficial owner, directly or indirectly, of 20% of the voting shares of the corporation is an “interested shareholder.” A corporation subject to this provision may not effect mergers or certain other business combinations with the interested shareholder for a period of five years, unless:

- the business combination or the acquisition of stock by means of which the interested shareholder became an interested shareholder is approved by the corporation’s board of directors prior to such stock acquisition;
- the business combination is approved by the affirmative vote of the holders of all the outstanding common shares of the corporation; or
- the business combination is approved by the affirmative vote of the holders of a majority of all shares entitled to vote, excluding votes of shares held by the interested shareholders or their affiliates, and at the time of such vote, the interested shareholder is the beneficial owner of at least 80% of the voting shares of the corporation. This exception applies only if the value of the consideration to be paid by the interested shareholder in connection with the business combination satisfies certain fair price requirements.

After the five-year restricted period, an interested shareholder of the corporation may engage in a business combination with the corporation if (a) the business combination is approved by the affirmative vote of a majority of the shares other than those beneficially owned by the interested shareholder and its affiliates, or (b) the merger is approved at a shareholders meeting and certain fair price requirements are met.

*Rights of Shareholders to Demand Full Value for their Stock Following Control Transaction.* Under Pennsylvania law, a control transaction is an acquisition by a person or group of the voting power over at least 20% of the voting shares of the corporation. Subject to exceptions, if a Pennsylvania registered corporation is subject to a control transaction, the controlling person or group must provide prompt notice of the transaction to the court and each shareholder of record holding voting shares. Any holder of voting shares may make a written demand on the controlling person or group for payment in cash of the fair value of each voting share at the date on which the control transaction occurs. The minimum value that a shareholder can receive is the highest price paid per share by the controlling person or group within the 90-day period ending on and including the date of the control transaction. If any shareholder believes the fair value of her shares is higher than the price offered by the controlling person or group, the shareholder may file a petition with the court seeking appraisal of the shares.

#### *Staggered Board of Directors*

The bylaws provide for the classification of the board of directors into three classes with each class serving a staggered three-year term. As a result of this classification, only one-third of the entire board of directors stands for election in any one year and a minimum of two annual meetings would be required to elect a majority of the board of directors.

### *Calling of Special Meetings of Shareholders*

Pursuant to the bylaws, special meetings of shareholders may only be called by the President of the Company, or by a majority of the Company's board of directors.

### *Advance Notice Requirements for Shareholder Proposals and Director Nominations*

The bylaws provide that notice of any proposal by a shareholder which the shareholder desires to submit to a vote at an annual meeting, including any director nominations, must be made by notice in writing, delivered or mailed by first class United States mail, postage prepaid, to the President of the Company not less than forty-five (45) days nor more than sixty (60) days prior to any annual meeting of shareholders. The bylaws also specify requirements as to the contents of the shareholder's notice or nomination. If notice is not provided in accordance with these provisions, a shareholder's proposal will not appear on the meeting agenda.

### *Removal of Directors*

Under Pennsylvania law, directors of the Company can be removed from office by a vote of shareholders only for cause.

### *Board of Directors May Consider Factors When Evaluating Take-Over Offer*

The articles of incorporation provide that, when evaluating any offer by another party or a tender or exchange offer for any equity security of the Company or to enter into a merger or other business combination with the Company, the board may consider, among other factors: (i) the social and economic effects on the employees, customers and other constituents of the Company and its subsidiaries and on the communities in which the Company and its subsidiaries operate or are located, and (ii) the desirability of the Company continuing as an independent entity.

### *Amendments to Articles of Incorporation*

The articles of incorporation provide that, in addition to any affirmative vote required by law, the articles of incorporation may be amended by the affirmative vote of the holders of a majority of the outstanding shares of voting stock; provided, however the approval of any amendment to Article V (shares), Article VII (business combinations) and Article VIII (amendments) of the articles of incorporation requires the affirmative vote of holders of at least 75% of the outstanding shares of voting stock. The PBCL also provides that our shareholders are not entitled by statute to propose amendments to the articles of incorporation.

### *Amendments to Bylaws*

The bylaws provide that our bylaws may be amended or repealed, in whole or in part, by the affirmative vote of a majority of the board of directors at any regular or special meeting of the board of directors. The PBCL provides that the ability of our board of directors to adopt, amend or repeal the bylaws is subject to the power of shareholders to change such action. The PBCL also provides that the board of directors does not have the authority to adopt or change a bylaw on specified subjects, including, but not limited to, authorized capital, the personal liability of directors, various matters relating to our board of directors, and matters relating to the voting rights of shareholders.

**Subsidiaries of the Registrant**

100% Voting Securities Owned by Registrant

- 1) QNB Bank – chartered in the Commonwealth of Pennsylvania

**Consent of Independent Registered Public Accounting Firm**

We consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-164103 and 333-230602), and Form S-8 (Nos. 333-212939, 333-206134, 333-175788, 333-91201, 333-125998, and 333-135408) of QNB Corp. and subsidiary of our report dated March 13, 2020, relating to the consolidated financial statements and the effectiveness of QNB Corp. and subsidiary's internal control over financial reporting, which appears in the annual report on Form 10-K for the year ended December 31, 2019.

/s/ Baker Tilly Virchow Krause, LLP

Allentown, Pennsylvania  
March 13, 2020

**CERTIFICATION**

I, David W. Freeman, certify that:

1. I have reviewed this annual report on Form 10-K of QNB Corp.
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report.
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report.
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal controls over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of Registrant's Board of Directors (or persons performing the equivalent function):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: March 13, 2020

By: /s/ David W. Freeman  
David W. Freeman  
Chief Executive Officer



**CERTIFICATION**

I, Janice McCracken Erkes, certify that:

1. I have reviewed this annual report on Form 10-K of QNB Corp.
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report.
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report.
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal controls over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of Registrant's Board of Directors (or persons performing the equivalent function):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: March 13, 2020

By: /s/ Janice McCracken Erkes  
Janice McCracken Erkes  
Chief Financial Officer

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350  
AS ADDED BY  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of QNB Corp. (the Company) for the period ended December 31, 2019, as filed with the Securities and Exchange Commission (the Report), I, David W. Freeman, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as added by § 906 of the Sarbanes-Oxley Act of 2002, that this periodic report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this report fairly presents, in all material respects, the financial condition and results of operations of the issuer.

Date: March 13, 2020

By: /s/ David W. Freeman  
David W. Freeman  
Chief Executive Officer

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350  
AS ADDED BY  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of QNB Corp. (the Company) for the period ended December 31, 2019, as filed with the Securities and Exchange Commission (the Report), I, Janice McCracken Erkes, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as added by § 906 of the Sarbanes-Oxley Act of 2002, that this periodic report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this report fairly presents, in all material respects, the financial condition and results of operations of the issuer.

Date: March 13, 2020

By: /s/ Janice McCracken Erkes  
Janice McCracken Erkes  
Chief Financial Officer