Live Oak Bancshares, Inc.
Form 10-K
February 27, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 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, 2018

or

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

Commission file number: 001-37497

LIVE OAK BANCSHARES, INC.

(Exact name of registrant as specified in its charter)

North Carolina (State or other jurisdiction of incorporation or organization)	26-4596286 (I.R.S. Employer Identification No.)
1741 Tiburon Drive, Wilmington, NC (Address of principal executive offices)	28403 (Zip Code)

Registrant's telephone number, including area code: (910) 790-5867

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

Title of each class	Name of each exchange on which registered
Voting Common Stock, no par value per share	The NASDAQ Stock Market LLC

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large Accelerated Filer	Accelerated Filer
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 registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES NO

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant as of June 30, 2018, was approximately $924,161,222. Shares of common stock held by each officer and director have been excluded in that such persons may be deemed to be affiliates. There is no public market for the registrant's non-voting common stock. For purposes of this calculation, the registrant has assumed that the market value of each share of non-voting common stock is equal to a share of voting common stock.

APPLICABLE ONLY TO CORPORATE ISSUERS:

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

As of February 26, 2019, there were 35,516,838 shares of the registrant's voting common stock outstanding and 4,643,530 shares of the registrant's non-voting common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for the 2019 Annual Meeting of Shareholders, which the registrant plans to file subsequent to the date hereof, are incorporated by reference into Part III. Portions of the registrant's annual report to shareholders for the year ended December 31, 2018, which will be posted on the registrant's website subsequent to the date hereof, are incorporated by reference into Part II.

Live Oak Bancshares, Inc.

Annual Report on Form 10-K

December 31, 2018

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Important Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K (this “Report”) contains statements that management believes are forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995. These statements generally relate to the financial condition, results of operations, plans, objectives, future performance or business of Live Oak Bancshares, Inc. (the "Company"). They usually can be identified by the use of forward-looking terminology, such as “believes,” “expects,” or “are expected to,” “plans,” “projects,” “goals,” “estimates,” “will,” “may,” “should,” “could,” “would “intends to,” “outlook” or “anticipates,” or variations of these and similar words, or by discussions of strategies that involve risks and uncertainties. You should not place undue reliance on these statements, as they are subject to risks and uncertainties, including but not limited to, those described in this Report. When considering these forward-looking statements, you should keep in mind these risks and uncertainties, as well as any cautionary statements management may make. Moreover, you should treat these statements as speaking only as of the date they are made and based only on information actually known to the Company at the time. Management undertakes no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise. Forward-looking statements contained in this Report are based on current expectations, estimates and projections about the Company’s business, management’s beliefs and assumptions made by management. These statements are not guarantees of the Company’s future performance and involve certain risks, uncertainties and assumptions, which are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecasted in the forward-looking statements. These risks, uncertainties and assumptions include, without limitation:

- deterioration in the financial condition of borrowers resulting in significant increases in the Company’s loan and lease losses and provisions for those losses and other adverse impacts to results of operations and financial condition;
- changes in Small Business Administration ("SBA") rules, regulations and loan products, including specifically the Section 7(a) program, changes in SBA standard operating procedures or changes to the status of Live Oak Banking Company (the "Bank") as an SBA Preferred Lender;
- changes in rules, regulations or procedures for other government loan programs, including those of the United States Department of Agriculture;
- changes in interest rates that affect the level and composition of deposits, loan demand and the values of loan collateral, securities, and interest sensitive assets and liabilities;
- the failure of assumptions underlying the establishment of reserves for possible loan and lease losses;
- changes in loan underwriting, credit review or loss reserve policies associated with economic conditions, examination conclusions, or regulatory developments;
- a reduction in or the termination of the Company’s ability to use the technology-based platform that is critical to the success of the Company’s business model, including a failure in or a breach of the Company’s operational or security systems or those of its third party service providers;
- changes in financial market conditions, either internationally, nationally or locally in areas in which the Company conducts operations, including reductions in rates of business formation and growth, demand for the Company’s products and services, commercial and residential real estate development and prices, premiums paid in the secondary market for the sale of loans, and valuation of servicing rights;
- changes in accounting principles, policies, and guidelines applicable to bank holding companies and banking;
- fluctuations in markets for equity, fixed-income, commercial paper and other securities, which could affect availability, market liquidity levels, and pricing;
- the effects of competition from other commercial banks, non-bank lenders, consumer finance companies, credit unions, securities brokerage firms, insurance companies, money market and mutual funds, and other financial institutions operating in the Company’s market area and elsewhere, including institutions operating regionally, nationally and internationally, together with such competitors offering banking products and services by mail, telephone and the Internet;
- the Company's ability to attract and retain key personnel;

- changes in governmental monetary and fiscal policies as well as other legislative and regulatory changes, including with respect to SBA lending programs and investment tax credits;
- changes in political and economic conditions, including any prolonged U.S. government shutdown;
- the impact of heightened regulatory scrutiny of financial products and services, primarily led by the Consumer Financial Protection Bureau;
- the Company's ability to comply with any requirements imposed on it by regulators, and the potential negative consequences that may result;
- operational, compliance and other factors, including conditions in local areas in which the Company conducts business such as inclement weather or a reduction in the availability of services or products for which loan proceeds will be used, that could prevent or delay closing and funding loans before they can be sold in the secondary market;
- the effect of any mergers, acquisitions or other transactions, to which the Company or the Bank may from time to time be a party, including management’s ability to successfully integrate any businesses acquired;
- other risk factors listed from time to time in reports that the Company files with the SEC, including those described under “Risk Factors” in this Report; and
- the success at managing the risks involved in the foregoing.

Except as otherwise disclosed, forward-looking statements do not reflect: (i) the effect of any acquisitions, divestitures or similar transactions that have not been previously disclosed; (ii) any changes in laws, regulations or regulatory interpretations; or (iii) any change in current dividend or repurchase strategies, in each case after the date as of which such statements are made. All forward-looking statements speak only as of the date on which such statements are made, and the Company undertakes no obligation to update any statement, to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events.

PART I

Item 1. BUSINESS
General

Live Oak Bancshares, Inc. (“LOB” and, collectively with its subsidiaries including Live Oak Banking Company, the “Company,” also referred to as "our" and "we"), headquartered in Wilmington, North Carolina, is the bank holding company for Live Oak Banking Company (the “Bank” or "Live Oak Bank"). The Bank was incorporated in February 2008 as a North Carolina-chartered commercial bank and operates an established national online platform for small business lending and deposit gathering. LOB was incorporated under the laws of the state of North Carolina on December 18, 2008, for the purpose of serving as the bank holding company of Live Oak Bank. LOB completed its initial public offering (“IPO”) in July 2015.

The Company

The Company predominantly originates loans partially guaranteed by the U.S. Small Business Administration (the "SBA") and to a lesser extent by the U.S. Department of Agriculture ("USDA") Rural Energy for America Program ("REAP"), Business & Industry ("B&I") and Water & Waste Disposal (“WEP”) loan programs. These loans are to small businesses and professionals with what the Company believes are lower risk characteristics. Industries, or “verticals,” on which the Company focuses its lending efforts are carefully selected. Within these verticals the Company typically retains individuals who possess extensive industry-specific experience.

In addition to focusing on industry verticals, the Company emphasizes developing detailed knowledge of its customers’ businesses. This knowledge is developed, in part, through regular visits to customers’ operations, wherever they are located. These regular visits are designed to foster both for the Company and for the customer a deep and personalized experience throughout the lending relationship. The Company has developed and continues to refine a technology-based platform to facilitate providing financial services to the small business community on a national scale and has leveraged this technology to optimize the Company's loan origination process, customer experience, reporting metrics, and servicing activity. The Company services customers efficiently throughout the loan process and monitors their performance by means of the technology-based platform without maintaining traditional branch locations.

For additional information on the Company's business, financial performance and results of operations, see “Overview” and “Executive Summary” in Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations of this Report. For information on the Company’s financial information about geographic areas, see Part II, Item 8 of this Report.

LOB's voting common stock trades on the NASDAQ Global Select Market (“NASDAQ”) under the symbol “LOB.” As of January 31, 2019, there were 386 holders of record of LOB's voting common stock. The Company's principal executive office is located at 1741 Tiburon Drive, Wilmington, North Carolina 28403, telephone number (910) 790-5867. The Company maintains a website at www.liveoakbank.com. Documents available on the website include: (i) the Company's Code of Ethics and Conflict of Interest Policy; and (ii) charters for the Audit and Risk, Compensation, and Nominating and Corporate Governance Committees of the Board of Directors. These documents also are available in print to any shareholder who requests a copy.

In addition, available free of charge through the Company's website is the Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports as soon as reasonably practicable after electronically filing or furnishing such material to the U.S. Securities and Exchange Commission (“SEC”). These filings are also accessible on the SEC’s website at www.sec.gov.

The Company also will provide without charge a copy of this Report, as well as any documents available on the Company's website, to any shareholder by mail. Requests should be sent to Live Oak Bancshares, Inc., Attention: Corporate Secretary, 1741 Tiburon Drive, Wilmington, NC 28403.

Competition

Commercial banking in the United States is extremely competitive. The Company competes with national banking organizations, including the largest commercial banks headquartered in the country, all of which have small business lending divisions. The Company also competes with other federally and state chartered financial institutions such as community banks and credit unions, finance and business development companies, peer-to-peer and marketplace lenders and other non-bank lenders. Many of the Company's competitors have higher legal lending limits and are also able to provide a wider array of services and make greater use of media advertising given their size and resources.

Despite the intense level of competition among small business lenders, the Company believes that it occupies a lending category distinct from its competitors. One of the Company's principal advantages is the technology-based platform it uses, which management believes has accelerated the Company's ability to issue proposals, complete credit due diligence, finalize commitments and improve the overall customer experience. The Company believes that its personnel also provide a competitive advantage because they include industry participants with relevant experience in the Company's identified verticals.

Employees

As of December 31, 2018, the Company had 493 full-time employees and 13 part-time employees. None of these employees are covered by a collective bargaining agreement, and management considers relations with employees to be good.

Subsidiaries

In addition to the Bank, the Company directly or indirectly held the following wholly-owned subsidiaries as of December 31, 2018:

- Live Oak Clean Energy Financing LLC, formed in November 2016 for the purpose of providing financing to entities for renewable energy applications;
- Live Oak Ventures, Inc., formed in August 2016 for the purpose of investing in businesses that align with the Company's strategic initiative to be a leader in financial technology;
- Live Oak Grove, LLC, opened in September 2015 for the purpose of providing Company employees and business visitors an on-site restaurant location;
- Government Loan Solutions, Inc. (“GLS”), a management and technology consulting firm that specializes in the settlement, accounting, and securitization processes for government guaranteed loans, including loans originated under the SBA 7(a) loan program and USDA-guaranteed loans; and
- 504 Fund Advisors, LLC (“504FA”), formed to serve as the investment advisor to the 504 Fund, a closed-end mutual fund organized to invest in SBA section 504 loans.

In 2018, the Bank formed Live Oak Private Wealth, LLC, a registered investment advisor that provides high-net-worth individuals and families with strategic wealth and investment management services. In 2010, the Bank formed Live Oak Number One, Inc., a wholly owned subsidiary, to hold properties foreclosed on by the Bank.

SUPERVISION AND REGULATION

Federal Bank Holding Company Regulation and Structure

As a registered bank holding company, LOB is subject to regulation under the Bank Holding Company Act, or BHCA, and to the supervision, examination and reporting requirements of the Board of Governors of the Federal Reserve System (the “Federal Reserve”). The Bank is a North Carolina-chartered commercial bank and is subject to

regulation, supervision and examination by the Federal Deposit Insurance Corporation, or the FDIC, and the North Carolina Commissioner of Banks, or NCCOB.

The BHCA requires every bank holding company to obtain the prior approval of the Federal Reserve before:

- it may acquire direct or indirect ownership or control of any voting shares of any bank if, after the acquisition, the bank holding company will directly or indirectly own or control more than 5% of the voting shares of the bank;
- it or any of its subsidiaries, other than a bank, may acquire all or substantially all of the assets of any bank; or
- it may merge or consolidate with any other bank holding company.

The BHCA further provides that the Federal Reserve may not approve any transaction that would result in a monopoly or that would substantially lessen competition in the banking business, unless the public interest in meeting the needs of the communities to be served outweighs the anti-competitive effects. The Federal Reserve is also required to consider the financial and managerial resources and future prospects of the bank holding companies and banks involved and the convenience and needs of the communities to be served. Consideration of financial resources generally focuses on capital adequacy, and consideration of convenience and needs issues focuses, in part, on the performance under the Community Reinvestment Act of 1977, both of which are discussed elsewhere in more detail.

Subject to various exceptions, the BHCA and the Change in Bank Control Act, together with related regulations, require Federal Reserve approval prior to any person or company acquiring “control” of a bank holding company. Control is conclusively presumed to exist if an individual or company acquires 25% or more of any class of voting securities of a bank holding company. Control is also presumed to exist, although rebuttable, if a person or company acquires 10% or more, but less than 25%, of any class of voting securities and either:

- the bank holding company has securities registered under Section 12 of the Securities Exchange Act of 1934, as amended, or the Exchange Act; or
- no other person owns a greater percentage of that class of voting securities immediately after the transaction.

LOB's common stock is registered under Section 12 of the Exchange Act. The regulations provide a procedure for challenging rebuttable presumptions of control.

The BHCA generally prohibits a bank holding company from retaining direct or indirect ownership or control of any voting shares of any company which is not a bank or bank holding company or engaging in activities other than banking, managing or controlling banks or other permissible subsidiaries and acquiring or retaining direct or indirect control of any company engaged in any activities other than activities closely related to banking or managing or controlling banks. In determining whether a particular activity is permissible, the Federal Reserve considers whether performing the activity can be expected to produce benefits to the public that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interest or unsound banking practices. The Federal Reserve has the power to order a bank holding company or its subsidiaries to terminate any activity or control of any subsidiary when the continuation of the activity or control constitutes a serious risk to the financial safety, soundness or stability of any bank subsidiary of that bank holding company.

Under the BHCA, a bank holding company may file an election with the Federal Reserve to be treated as a financial holding company and engage in an expanded list of financial activities. The election must be accompanied by a certification that all of the company’s insured depository institution subsidiaries are “well capitalized” and “well managed.” Additionally, the Community Reinvestment Act of 1977 rating of each subsidiary bank must be satisfactory or better. If, after becoming a financial holding company and undertaking activities not permissible for a bank holding company, the company fails to continue to meet any of the prerequisites for financial holding company status, the company must enter into an agreement with the Federal Reserve to comply with all applicable capital and management requirements. If the company does not return to compliance within 180 days, the Federal Reserve may order the company to divest its subsidiary banks or the company may discontinue or divest investments in companies engaged in activities permissible only for a bank holding company that has elected to be treated as a financial holding company. LOB filed an election and became a financial holding company in 2016.

Under Federal Reserve policy and as codified by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, the Company is expected to act as a source of financial strength for Live Oak Bank and to commit resources to support Live Oak Bank. This support may be required at times when LOB might not be inclined to provide it or it might not be in LOB's best interests or the best interests of its shareholders. In addition, any capital loans made by the Company to Live Oak Bank will be repaid only after Live Oak Bank’s deposits and various other obligations are repaid in full.

Live Oak Bank is also subject to numerous state and federal statutes and regulations that affect its business, activities and operations and is supervised and examined by state and federal bank regulatory agencies. The FDIC and the NCCOB regularly examine the operations of Live Oak Bank and are given the authority to approve or disapprove mergers, consolidations, the establishment of branches and similar corporate actions. These agencies also have the power to prevent the continuance or development of unsafe or unsound banking practices or other violations of law.

Bank Merger Act

Section 18(c) of the Federal Deposit Insurance Act, popularly known as the “Bank Merger Act,” requires the prior written approval of appropriate federal bank regulatory agencies before any bank may (i) merge or consolidate with, (ii) purchase or otherwise acquire the assets of, or (iii) assume the deposit liabilities of, another bank if the resulting institution is to be a state nonmember bank.

The Bank Merger Act prohibits the applicable federal bank regulatory agency from approving any proposed merger transaction that would result in a monopoly, or would further a combination or conspiracy to monopolize or to attempt to monopolize the business of banking in any part of the United States. Similarly, the Bank Merger Act prohibits the applicable federal bank regulatory agency from approving a proposed merger transaction whose effect in any section of the country may be substantially to lessen competition, or to tend to create a monopoly, or which in any other manner would be in restraint of trade. An exception may be made in the case of a merger transaction whose effect would be to substantially lessen competition, tend to create a monopoly, or otherwise restrain trade, if the applicable federal bank regulatory agency finds that the anticompetitive effects of the proposed transaction are clearly outweighed in the public interest by the probable effect of the transaction in meeting the convenience and needs of the community to be served.

In every proposed merger transaction, the applicable federal bank regulatory agency must also consider the financial and managerial resources and future prospects of the existing and proposed institutions, the convenience and needs of the community to be served, and the effectiveness of each insured depository institution involved in the proposed merger transaction in combating money-laundering activities, including in overseas branches.

State Law

Live Oak Bank is subject to extensive supervision and regulation by the NCCOB. The NCCOB oversees state laws that set specific requirements for bank capital and that regulate deposits in, and loans and investments by, banks, including the amounts, types, and in some cases, rates. The NCCOB supervises and performs periodic examinations of North Carolina-chartered banks to assure compliance with state banking statutes and regulations, and banks are required to make regular reports to the NCCOB describing in detail their resources, assets, liabilities, and financial condition. Among other things, the NCCOB regulates mergers and consolidations of North Carolina state-chartered banks, capital requirements for banks, loans to officers and directors, payment of dividends, record keeping, types and amounts of loans and investments, and the establishment of branches.

The NCCOB has extensive enforcement authority over North Carolina banks. Such authority includes the ability to issue cease and desist orders and to seek civil money penalties. The NCCOB may also take possession of a North Carolina bank in various circumstances, including for a violation of its charter or of applicable laws, operating in an unsafe and unsound manner, or as a result of an impairment of its capital, and may appoint a receiver.

The Company is also required to maintain registration as a bank holding company with the NCCOB. Subject to certain exceptions, the Company may not acquire control over another bank or bank holding company or consummate a merger or other combination transaction with another company without the prior approval of the NCCOB. The NCCOB also has authority to assert civil money penalties against a holding company if the NCCOB determines such

holding company to be in violation of any banking laws and the holding company fails to comply with an NCCOB order to cease and desist from such violations of law.

The primary state banking laws to which the Company and the Bank are subject are set forth in Chapters 53C and 53 of the North Carolina General Statutes. The North Carolina Business Corporation Act is also applicable to the Company as a North Carolina business corporation and to the Bank as a North Carolina banking corporation.

Payment of Dividends and Other Restrictions

The Company is a legal entity separate and distinct from the Bank. While there are various legal and regulatory limitations under federal and state law on the extent to which banks can pay dividends or otherwise supply funds to holding companies, the principal source of cash revenues for the Company is dividends from the Bank. The relevant federal and state regulatory agencies have authority to prohibit a state bank or bank holding company, which would include the Bank and the Company, from engaging in what, in the opinion of such regulatory body, constitutes an unsafe or unsound practice in conducting its business. The payment of dividends could, depending upon the financial condition of a bank, be deemed to constitute an unsafe or unsound practice in conducting its business.

North Carolina commercial banks, such as Live Oak Bank, are subject to legal limitations on the amounts of dividends they are permitted to pay. Specifically, an insured depository institution, such as Live Oak Bank, is prohibited from making capital distributions, including the payment of dividends, if, after making such distribution, the institution would become “undercapitalized” (as such term is defined in the applicable law and regulations).

The Federal Reserve has issued a policy statement on the payment of cash dividends by bank holding companies, which expresses the Federal Reserve’s view that a bank holding company should pay cash dividends only to the extent that the holding company’s net income for the past four quarters is sufficient to cover both the cash dividends and a rate of earnings retention that is consistent with the holding company’s capital needs, asset quality and overall financial condition. The Federal Reserve has also indicated that it would be inappropriate for a holding company experiencing serious financial problems to borrow funds to pay dividends. Furthermore, under the prompt corrective action regulations adopted by the Federal Reserve, the Federal Reserve may prohibit a bank holding company from paying any dividends if any of the holding company’s bank subsidiaries are classified as undercapitalized.

A bank holding company is required to give the Federal Reserve prior written notice of any purchase or redemption of its outstanding equity securities if the gross consideration for the purchase or redemption, when combined with the net consideration paid for all such purchases or redemptions during the preceding 12 months, is equal to 10% or more of its consolidated net worth. The Federal Reserve may disapprove such a purchase or redemption if it determines that the proposal would constitute an unsafe or unsound practice or would violate any law, regulation, Federal Reserve order or any condition imposed by, or written agreement with, the Federal Reserve.

Capital Adequacy

General. The Company must comply with the Federal Reserve’s established capital adequacy standards, and Live Oak Bank is required to comply with the capital adequacy standards established by the FDIC. The Federal Reserve has promulgated two basic measures of capital adequacy for bank holding companies: a risk-based measure and a leverage measure. A bank holding company must satisfy all applicable capital standards to be considered in compliance.

The risk-based capital standards are designed to make regulatory capital requirements more sensitive to differences in risk profile among banks and bank holding companies, account for off-balance-sheet exposure and minimize disincentives for holding liquid assets.

Assets and off-balance-sheet items are assigned to broad risk categories, each with appropriate weights. The resulting capital ratios represent capital as a percentage of total risk-weighted assets and off-balance-sheet items. Under applicable capital standards the minimum risk-based capital ratios are a common equity Tier 1 capital to risk-weighted assets ratio of 4.5%, a Tier 1 capital to risk-weighted assets ratio of 6%, and a total capital to risk-weighted assets ratio of 8%. In addition, to avoid restrictions on capital distributions and discretionary bonus payments, the Company and the Bank are required to meet a capital conservation buffer of common equity Tier 1 capital in addition to the minimum common equity Tier 1 capital ratio. The capital conservation buffer is set at a ratio of 2.5% common equity

Tier 1 capital to risk-weighted assets, which sits “on top” of the 4.5% minimum common equity Tier 1 to risk-weighted assets ratio. Common equity Tier 1 capital is predominantly composed of retained earnings and common stock instruments (that meet strict delineated criteria), net of treasury stock, and after making necessary capital deductions and adjustments. Tier 1 capital is composed of common equity Tier 1 capital plus Additional Tier 1 capital, which consists of noncumulative perpetual preferred stock and similar instruments meeting specified eligibility criteria and “TARP” preferred stock and other instruments issued under the Emergency Economic Stabilization Act of 2008. Total capital is composed of Tier 1 capital plus Tier 2 capital, which consists of subordinated debt with a minimum original maturity of at least five years and a limited amount of loan loss reserves.

At December 31, 2018, the Company's risk-based capital ratios, as calculated under applicable capital standards were 17.10% common equity Tier 1 capital to risk weighted assets, 17.10% Tier 1 capital to risk weighted assets, and 18.28% total capital to risk weighted assets.

In addition, the Federal Reserve has established minimum leverage ratio guidelines for bank holding companies. These guidelines provide for a minimum ratio of Tier 1 capital to average total on-balance sheet assets, less goodwill and certain other intangible assets, of 4% for bank holding companies. The Company's ratio at December 31, 2018 was 13.40% compared to 15.50% at December 31, 2017. The guidelines also provide that bank holding companies experiencing internal growth or making acquisitions will be expected to maintain strong capital positions substantially above the minimum supervisory levels without significant reliance on intangible assets. Furthermore, the Federal Reserve has indicated that it will consider a "tangible Tier 1 Capital leverage ratio" and other indications of capital strength in evaluating proposals for expansion or new activities.

Failure to meet capital guidelines could subject a bank to a variety of enforcement remedies, including issuance of a capital directive, the termination of deposit insurance by the FDIC, a prohibition on taking brokered deposits and certain other restrictions on its business. As described below, the FDIC can impose substantial additional restrictions upon FDIC-insured depository institutions that fail to meet applicable capital requirements.

Prompt Corrective Action. The Federal Deposit Insurance Act, or FDI Act, requires the federal bank regulatory agencies to take "prompt corrective action" if a depository institution does not meet minimum capital requirements. The FDI Act establishes five capital tiers: "well capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized" and "critically undercapitalized." A depository institution's capital tier will depend upon how its capital levels compare to various relevant capital measures and certain other factors, as established by regulation.

An institution may be downgraded to, or deemed to be in, a capital category that is lower than is indicated by its capital ratios if it is determined to be in an unsafe or unsound condition or if it receives an unsatisfactory examination rating with respect to certain matters. As of December 31, 2018, Live Oak Bank had capital levels that qualify as "well capitalized" under the applicable regulations.

The FDI Act generally prohibits an FDIC-insured bank from making a capital distribution (including payment of a dividend) or paying any management fee to its holding company if the bank is or would thereafter be "undercapitalized." "Undercapitalized" banks are subject to growth limitations and are required to submit a capital restoration plan. The federal regulators may not accept a capital restoration plan without determining, among other things, that the plan is based on realistic assumptions and is likely to succeed in restoring the bank's capital. In addition, for a capital restoration plan to be acceptable, the bank's parent holding company must guarantee that the institution will comply with such capital restoration plan until the institution has been adequately capitalized on average during each of four consecutive calendar quarters. The aggregate liability of the parent holding company under such guaranty is limited to the lesser of: (i) an amount equal to 5% of the bank's total assets at the time it became "undercapitalized"; and (ii) the amount which is necessary (or would have been necessary) to bring the institution into compliance with all capital standards applicable with respect to such institution as of the time it fails to comply with the plan. If a bank fails to submit an acceptable plan, it is treated as if it is "significantly undercapitalized."

"Significantly undercapitalized" insured banks may be subject to a number of requirements and restrictions, including orders to sell sufficient voting stock to become "adequately capitalized," requirements to reduce total assets and the cessation of receipt of deposits from correspondent banks. "Critically undercapitalized" institutions are subject to the appointment of a receiver or conservator.

A bank that is not "well capitalized" is also subject to certain limitations relating to brokered deposits. If a bank is not well-capitalized, it cannot accept brokered deposits without prior FDIC approval. Even if approved, rate restrictions

will govern the rate the institution may pay on the brokered deposits. In addition, a bank that is less than well-capitalized generally cannot offer an effective yield in excess of 75 basis points over the “national rate” (as defined below) paid on deposits (including brokered deposits, if approval is granted for the bank to accept them) of comparable size and maturity. The “national rate” is defined as a simple average of rates paid by insured depository institutions and branches for which data are available and is published weekly by the FDIC. Institutions subject to the restrictions that believe they are operating in an area where the rates paid on deposits are higher than the “national rate” can use the local market to determine the prevailing rate if they seek and receive a determination from the FDIC that it is operating in a high rate area. Regardless of the determination, institutions must use the national rate to determine conformance for all deposits outside their market area.

Basel III. The regulatory capital framework under which the Company and Live Oak Bank operate changed in significant respects as a result of the Dodd-Frank Act, which was enacted in July 2010, and other regulations, including the separate regulatory capital requirements put forth by the Basel Committee on Banking Supervision, commonly known "Basel III."

In July 2013, the Federal Reserve, FDIC and Office of the Comptroller of the Currency approved final rules that established an integrated regulatory capital framework that addressed shortcomings in certain capital requirements. The rules implemented in the United States the Basel III regulatory capital reforms from the Basel Committee on Banking Supervision and certain changes required by the Dodd-Frank Act. These rules began to apply to the Company effective January 1, 2015. Compliance by LOB and the Bank with these capital requirements affects their respective operations by increasing the amount of capital required to conduct operations.

Community Bank Leverage Ratio. As discussed below, in May 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act ("EGRRCPA") became law, which directs the federal banking agencies to develop a community bank leverage ratio ("CBLR") of not less than 8 percent and not more than 10 percent for qualifying community banking organizations. EGRRCPA defines a qualifying community banking organization as a depository institution or depository institution holding company with total consolidated assets of less than $10 billion, which would include the Company and the Bank. A qualifying community banking organization that exceeds the CBLR level established by the agencies is considered to have met: (i) the generally applicable leverage and risk-based capital requirements under the agencies' capital rule; (ii) the capital ratio requirements in order to be considered well capitalized under the agencies' prompt corrective action framework (in the case of insured depository institutions); and (iii) any other applicable capital or leverage requirements. Section 201 of EGRRCPA defines the CBLR as the ratio of a banking organization's CBLR tangible equity to its average total consolidated assets, both as reported on the banking organization's applicable regulatory filing.

In November 2018, the agencies issued a notice of proposed rulemaking that would establish the CBLR at 9 percent. Under the proposal, a qualifying community banking organization may elect to use the CBLR framework if its CBLR is greater than 9 percent. A qualifying community banking organization that has chosen the proposed framework would not be required to calculate the existing risk-based and leverage capital requirements. A bank would also be considered to have met the capital ratio requirements to be well capitalized for the agencies' prompt corrective action rules provided it has a CBLR greater than 9 percent. The Company will continue to evaluate the CBLR capital framework as the proposed rule makes its way through the agency rulemaking process.

Acquisitions

The Company must comply with numerous laws related to any potential acquisition activity. Under the BHCA, a bank holding company may not directly or indirectly acquire ownership or control of more than 5% of the voting shares or substantially all of the assets of any bank or merge or consolidate with another bank holding company without the prior approval of the Federal Reserve. The acquisition of non-banking companies is also regulated by the Federal Reserve. Current federal law authorizes interstate acquisitions of banks and bank holding companies without geographic limitation. Furthermore, a bank headquartered in one state is authorized to merge with a bank headquartered in another state, as long as neither of the states has opted out of such interstate merger authority prior to such date, and subject to any state requirement that the target bank shall have been in existence and operating for a minimum period of time, not to exceed five years, and to certain deposit market-share limitations. After a bank has established branches in a state through an interstate merger transaction, the bank may establish and acquire additional branches at any location in the state where a bank headquartered in that state could have established or acquired branches under applicable federal or state law. Additionally, since passage of the Dodd-Frank Act, banks are now permitted to open a de novo branch in any state if that state would permit a bank organized in that state to open a branch.

Restrictions on Affiliate Transactions

Sections 23A and 23B of the Federal Reserve Act establish parameters for a bank to conduct “covered transactions” with its affiliates, with the objective of limiting risk to the insured bank. Generally, Sections 23A and 23B (i) limit the extent to which the bank or its subsidiaries may engage in “covered transactions” with any one affiliate to an amount equal to 10% of such bank’s capital stock and surplus, and limit the aggregate of all such transactions with all affiliates to an amount equal to 20% of such capital stock and surplus and (ii) require that all such transactions be on terms substantially the same, or at least as favorable, to the bank or subsidiary as those that would be provided to a non-affiliate. The term “covered transaction” includes the making of loans to the affiliate, purchase of assets from the affiliate, issuance of a guaranty on behalf of the affiliate and several other types of transactions.

The Dodd-Frank Act imposed additional restrictions on transactions between affiliates by amending these two sections of the Federal Reserve Act. Under the Dodd-Frank Act, restrictions on transactions with affiliates are enhanced by (i) including among “covered transactions” transactions between bank and affiliate-advised investment funds; (ii) including among “covered transactions” transactions between a bank and an affiliate with respect to securities repurchase agreements and derivatives transactions; (iii) adopting stricter collateral rules; and (iv) imposing tighter restrictions on transactions between banks and their financial subsidiaries.

FDIC Insurance Assessments

The Bank’s deposits are insured by the FDIC. The standard FDIC insurance coverage amount is $250,000 per depositor. The FDIC maintains its Deposit Insurance Fund, or DIF, for the purposes of (1) insuring the deposits and protecting the depositors of insured banks and (2) resolving failed banks. The DIF is funded mainly through quarterly assessments on insured banks, but also receives interest income on securities. The DIF is reduced by loss provisions associated with failed banks and by FDIC operating expenses.

The FDIC imposes a risk-based deposit insurance premium assessment on member institutions in order to maintain the DIF. The assessment rates for an insured depository institution vary according to the level of risk incurred in its activities, which for established small institutions like the Bank (i.e., those institutions with less than $10 billion in assets and insured for five years or more), is generally determined by reference to the institution’s supervisory ratings. The assessment rate schedule can change from time to time, at the discretion of the FDIC, subject to certain limits. Live Oak Bank’s insurance assessments during 2018 and 2017 were $3.2 million. The FDIC may terminate insurance of deposits upon a finding that an institution has engaged in unsafe and unsound practices, is in an unsafe or unsound condition to continue operations, or has violated any applicable law, regulation, rule, order or condition imposed by the FDIC.

The Dodd-Frank Act expanded the base for FDIC insurance assessments, requiring that assessments be based on the average consolidated total assets less tangible equity capital of a financial institution. In 2011, the FDIC approved a final rule to implement the foregoing provision of the Dodd-Frank Act. Among other things, the final rule revised the assessment rate schedule to provide initial base assessment rates ranging from 5 to 35 basis points, subject to adjustments which could increase or decrease the total base assessment rates. The FDIC has three possible adjustments to an institution’s initial base assessment rate: (1) a decrease of up to five basis points (or 50% of the initial base assessment rate) for long-term unsecured debt, including senior unsecured debt (other than debt guaranteed under the Temporary Liquidity Guarantee Program) and subordinated debt; (2) an increase for holding long-term unsecured or subordinated debt issued by other insured depository institutions known as the Depository Institution Debt Adjustment; and (3) for institutions not well rated and well capitalized, an increase not to exceed 10 basis points for brokered deposits in excess of 10 percent of domestic deposits.

The law also gives the FDIC enhanced discretion to set assessment rate levels. A significant increase in insurance premiums would likely have an adverse effect on the operating expenses and results of operations of the Company and the Bank. Management cannot predict what insurance assessment rates will be in the future.

The FDIC also collects a deposit-based assessment from insured financial institutions on behalf of the Financing Corporation, or the FICO. The funds from these assessments are used to service debt issued by FICO in its capacity as a financial vehicle for the Federal Savings & Loan Insurance Corporation. The FICO assessment rate is set quarterly and was .110 basis points for the first quarter, .080 basis points for the second and third quarter, and .035 basis points for the fourth quarter of 2018, per $100 of assessable deposits. These assessments will continue until the debt matures in 2019.

Privacy

Financial institutions are required by the Gramm-Leach-Bliley Financial Services Modernization Act of 1999 to disclose their policies for collecting and protecting confidential customer information. Customers generally may prevent financial institutions from sharing personal financial information with nonaffiliated third parties except for third parties that market the institutions' own products and services. Additionally, financial institutions generally may not disclose consumer account numbers to any nonaffiliated third party for use in telemarketing, direct mail marketing or other marketing through electronic mail to consumers. The Bank has established a privacy policy that it believes promotes compliance with these federal requirements.

Federal Home Loan Bank System

The Federal Home Loan Bank, or FHLB, System consists of 12 district FHLBs subject to supervision and regulation by the Federal Housing Finance Agency, or FHFA. The FHLBs provide a central credit facility primarily for member institutions. As a member of the FHLB of Atlanta, the Bank is required to acquire and hold shares of capital stock in the FHLB of Atlanta. The Bank was in compliance with this requirement with investment in FHLB of Atlanta stock of $3.1 million at December 31, 2018. The FHLB of Atlanta serves as a reserve or central bank for its member institutions within its assigned district. It is funded primarily from proceeds derived from the sale of consolidated obligations of the FHLB System. It offers advances to members in accordance with policies and procedures established by the FHFA and the Board of Directors of the FHLB of Atlanta. Long-term advances may only be made for the purpose of providing funds for residential housing finance, small businesses, small farms and small agribusinesses.

Community Reinvestment Act

The Community Reinvestment Act requires federal bank regulatory agencies to encourage financial institutions to meet the credit needs of low and moderate-income borrowers in their local communities. An institution's size and business strategy determines the type of examination that it will receive. Large, retail-oriented institutions are examined using a performance-based lending, investment and service test. Small institutions are examined using a streamlined approach. All institutions may opt to be evaluated under a strategic plan formulated with community input and pre-approved by the bank regulatory agency.

The Community Reinvestment Act regulations provide for certain disclosure obligations. Each institution must post a notice advising the public of its right to comment to the institution and its regulator on the institution's Community Reinvestment Act performance and to review the institution's Community Reinvestment Act public file. Each lending institution must maintain for public inspection a file that includes a listing of branch locations and services, a summary of lending activity, a map of its communities and any written comments from the public on its performance in meeting community credit needs. The Community Reinvestment Act requires public disclosure of the regulators' written Community Reinvestment Act evaluations of financial institutions. This promotes enforcement of Community Reinvestment Act requirements by providing the public with the status of a particular institution's community reinvestment record.

The Community Reinvestment Act agreements with private parties must be disclosed and annual Community Reinvestment Act reports relating to such agreements must be made available to a bank's primary federal regulator. A bank holding company will not be permitted to become a financial holding company and no new activities authorized under the Gramm-Leach-Bliley Act may be commenced by a holding company or by a bank financial subsidiary if any of its bank subsidiaries received less than a satisfactory Community Reinvestment Act rating in its latest Community Reinvestment Act examination.

The Volcker Rule

Under provisions of the Dodd-Frank Act referred to as the "Volcker Rule," certain limitations are placed on the ability of insured depository institutions and their affiliates to engage in sponsoring, investing in and transacting with certain investment funds, including hedge funds and private equity funds. The Volcker Rule also places restrictions on proprietary trading, which could impact certain hedging activities. The Volcker Rule became fully effective in July 2015, and banking entities had until July 21, 2017, to divest certain legacy investments in covered funds. Further, pursuant to EGRRCPA enacted in May 2018 and discussed below, community banks are excluded from the restrictions of the Volcker Rule if (i) the community bank, and every entity that controls it, has total consolidated assets equal to or less than $10 billion and (ii) trading assets and liabilities of the community bank, and every entity

that controls it, are equal to or less than five percent of its total consolidated assets.

USA PATRIOT Act

The Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, or the USA PATRIOT Act, required each financial institution: (i) to establish an anti-money laundering program; (ii) to establish due diligence policies, procedures and controls with respect to its private banking accounts involving foreign individuals and certain foreign banks; and (iii) to avoid establishing, maintaining, administering or managing correspondent accounts in the United States for, or on behalf of, foreign banks that do not have a physical presence in any country. The USA PATRIOT Act also required the Secretary of the Treasury to prescribe by regulation minimum standards that financial institutions must follow to verify the identity of customers, both foreign and domestic, when a customer opens an account. In addition, the USA PATRIOT Act encouraged cooperation among financial institutions, regulatory authorities and law enforcement authorities with respect to individuals, entities and organizations engaged in, or reasonably suspected of engaging in, terrorist acts or money laundering activities.

Sarbanes-Oxley Act of 2002

The Sarbanes-Oxley Act of 2002, or Sarbanes-Oxley, mandated for public companies, such as the Company, a variety of reforms intended to address corporate and accounting fraud and provided for the establishment of the PCAOB, which enforces auditing, quality control and independence standards for firms that audit SEC-reporting companies. Sarbanes-Oxley imposed higher standards for auditor independence and restricted the provision of consulting services by auditing firms to companies they audit and requires that certain audit partners be rotated periodically. It also requires chief executive officers and chief financial officers, or their equivalents, to certify the accuracy of periodic reports filed with the SEC, subject to civil and criminal penalties if they knowingly or willfully violate this certification requirement, and increases the oversight and authority of audit committees of publicly traded companies.

Fiscal and Monetary Policy

Banking is a business which depends on interest rate differentials for success. In general, the difference between the interest paid by a bank on its deposits and its other borrowings, and the interest received by a bank on its loans and securities holdings, constitutes a significant portion of a bank’s earnings. Thus, the Company's earnings and growth will be subject to the influence of economic conditions generally, both domestic and foreign, and also to the monetary and fiscal policies of the United States and its agencies, particularly the Federal Reserve. The Federal Reserve regulates the supply of money through various means, including open market dealings in United States government securities, the discount rate at which banks may borrow from the Federal Reserve and the reserve requirements on deposits. The nature and timing of any changes in such policies and their effect on the Company's business and results of operations cannot be predicted.

Current and future legislation and the policies established by federal and state regulatory authorities will affect the Company's future operations. Banking legislation and regulations may limit the Company's growth and the return to its investors by restricting certain of its activities.

In addition, capital requirements could be changed and have the effect of restricting the activities of the Company or requiring additional capital to be maintained. The Company cannot predict with certainty what changes, if any, will be made to existing federal and state legislation and regulations or the effect that such changes may have on the Company's business and results of operations.

Real Estate Lending Evaluations

The federal regulators have adopted uniform standards for evaluations of loans secured by real estate or made to finance improvements to real estate. Banks are required to establish and maintain written internal real estate lending policies consistent with safe and sound banking practices and appropriate to the size of the institution and the nature and scope of its operations. The regulations establish loan to value ratio limitations on real estate loans. Live Oak Bank’s respective loan policies establish limits on loan to value ratios that are equal to or less than those established in such regulations.

Commercial Real Estate Concentrations

Lending operations of commercial banks may be subject to enhanced scrutiny by federal banking regulators based on a bank’s concentration of commercial real estate, or CRE, loans. The federal banking regulators have issued guidance to remind financial institutions of the risk posed by commercial real estate, or CRE, lending concentrations. CRE loans generally include land development, construction loans, and loans secured by multifamily property, and nonfarm, nonresidential real property where the primary source of repayment is derived from rental income associated with the property. The guidance prescribes the following guidelines for bank examiners to help identify institutions

that are potentially exposed to significant CRE risk and may warrant greater supervisory scrutiny:

- total reported loans for construction, land development and other land, or C&D, represent 100% or more of the institution’s total capital; or
- total CRE loans represent 300% or more of the institution’s total capital, and the outstanding balance of the institution’s CRE loan portfolio has increased over 50% or more during the prior 36 months.

As of December 31, 2018, the Bank's C&D concentration as a percentage of bank capital totaled 162.4% and the Bank's CRE concentration, net of owner-occupied loans, as a percentage of capital totaled 113.4%.

Limitations on Incentive Compensation

In October 2009, the Federal Reserve issued proposed guidance designed to help ensure that incentive compensation policies at banking organizations do not encourage excessive risk-taking or undermine the safety and soundness of the organization. In connection with the proposed guidance, the Federal Reserve announced that it would review incentive compensation arrangements of bank holding companies such as the Company as part of the regular, risk-focused supervisory process.

In June 2010, the Federal Reserve issued the incentive compensation guidance in final form and was joined by the FDIC, and the Office of the Comptroller of the Currency. The final guidance, which covers all employees that have the ability to materially affect the risk profile of an organization, either individually or as part of a group, is based upon the key principles that a banking organization’s incentive compensation arrangements should (i) provide employees incentives that appropriately balance risk and reward and, thus, do not encourage risk-taking beyond the organization’s ability to effectively identify and manage risks, (ii) be compatible with effective internal controls and risk management, and (iii) be supported by strong corporate governance, including active and effective oversight by the organization’s board of directors. Any deficiencies in compensation practices that are identified may be incorporated into the organization’s supervisory ratings, which can affect its ability to make acquisitions or perform other actions. The guidance provides that enforcement actions may be taken against a banking organization if its incentive compensation arrangements or related risk-management control or governance processes pose a risk to the organization’s safety and soundness and the organization is not taking prompt and effective measures to correct the deficiencies.

While the Dodd-Frank Act contemplated additional regulatory action to be taken related to incentive compensation, the administrative agencies have not yet adopted the contemplated regulations.

Registered Investment Adviser Regulation

Live Oak Private Wealth is a registered investment adviser under the Investment Advisers Act of 1940 and the SEC’s regulations promulgated thereunder. The Investment Advisers Act imposes numerous obligations on registered investment advisers, including fiduciary, recordkeeping, operational, and disclosure obligations. Supervisory agencies have the power to limit or restrict Live Oak Private Wealth from conducting its business in the event that it fails to comply with such laws and regulations. Possible sanctions that may be imposed in the event of such noncompliance include the suspension of individual employees, limitations on the business activities for specified periods of time, revocation of registration as an investment adviser and/or other registrations, and other censures and fines. Changes in these laws or regulations could have a material adverse impact on the profitability and mode of operations of Live Oak Private Wealth.

Economic Environment

The policies of regulatory authorities, including the monetary policy of the Federal Reserve, have a significant effect on the operating results of bank holding companies and their subsidiaries. Among the means available to the Federal Reserve to affect the money supply are open market operations in U.S. government securities, changes in the discount rate on member bank borrowings and changes in reserve requirements against member bank deposits. These means are used in varying combinations to influence overall growth and distribution of bank loans, investments and deposits, and their use may affect interest rates charged on loans or paid on deposits. The Federal Reserve’s monetary policies have materially affected the operating results of commercial banks in the past and are expected to continue to do so in the future. The nature of future monetary policies and the effect of these policies on the Company's business and earnings cannot be predicted.

Dodd-Frank Act

The Dodd-Frank Act was signed into law in 2010 and implemented many new changes in the way financial and banking operations are regulated in the United States, including through the creation of a new resolution authority, mandating higher capital and liquidity requirements, requiring banks to pay increased fees to regulatory agencies and numerous other provisions intended to strengthen the financial services sector. Pursuant to the Dodd-Frank Act the Financial Stability Oversight Council, or the FSOC, was created and is charged with overseeing and coordinating the efforts of the primary U.S. financial regulatory agencies (including the Federal Reserve, the FDIC and the SEC) in establishing regulations to address systemic financial stability concerns. Under the Dodd-Frank Act, the Consumer Financial Protection Bureau, or the CFPB, was also created as a new consumer financial services regulator. The CFPB is authorized to prevent unfair, deceptive and abusive practices and ensure that consumers have access to markets for consumer financial products and services and that such markets are fair, transparent and competitive.

February 3, 2017, Executive Order

On February 3, 2017, the President of the United States issued an executive order identifying “core principles” for the administration’s financial services regulatory policy and directing the Secretary of the Treasury, in consultation with the heads of other financial regulatory agencies, to evaluate how the current regulatory framework promotes or inhibits the principles and what actions have been, and are being, taken to promote the principles. In response to the executive order, on June 12, 2017, October 6, 2017, October 26, 2017, and July 31, 2018, respectively, the U.S. Department of the Treasury issued four separate reports recommending a number of comprehensive changes in the current regulatory system for U.S. depository institutions, the U.S. capital markets, the U.S. asset management and insurance industries, and nonbank financial institutions. The extent to which this executive order may ultimately result in changes to financial services laws, regulations, and policies applicable to us is not currently known.

Federal and State Taxation

The Company and its subsidiaries file a consolidated federal income tax return and separate state income tax returns in North Carolina. All the returns are filed on a calendar year basis. Consolidated income tax returns have the effect of eliminating intercompany income and expense, including dividends, from the computation of consolidated taxable income for the taxable year in which the items occur. In accordance with an income tax sharing agreement, income tax charges or credits are allocated among Live Oak and its subsidiaries on the basis of their respective taxable income or taxable loss that is included in the consolidated income tax return.

Banks and bank holding companies are subject to federal and state income taxes in essentially the same manner as other corporations. Taxable income is generally calculated under applicable sections of the Internal Revenue Code of 1986, as amended (the “Code”), with some modifications required by state law and the December 2017 tax legislation commonly referred to as the Tax Cut and Jobs Act (the "Tax Act"). Although Live Oak’s federal income tax liability is determined under provisions of the Code, which is applicable to all taxpayers, Sections 581 through 597 of the Code apply specifically to financial institutions.

Among other things, the new Tax Act (i) establishes a new, flat corporate federal statutory income tax rate of 21%, (ii) eliminates the corporate alternative minimum tax and allows the use of any such carryforwards to offset regular tax liability for any taxable year, (iii) limits the deduction for net interest expense incurred by U.S. corporations, (iv) allows businesses to immediately expense, for tax purposes, the cost of new investments in certain qualified depreciable assets, (v) eliminates or reduces certain deductions related to meals and entertainment expenses, (vi) modifies the limitation on excessive employee remuneration to eliminate the exception for performance-based compensation and clarifies the definition of a covered employee and (vii) limits the deductibility of deposit insurance premiums. The Tax Cuts and Jobs Act also significantly changes U.S. tax law related to foreign operations, however, such changes do not currently impact the Company. Based upon current 2019 projections, the effective tax rate for 2019 is expected to be in the low double digits; however, there can be no assurance as to the actual amount because it will be dependent upon the nature and amount of future income and expenses as well as investments generating investment tax credits and transactions with discrete tax effects.

Economic Growth, Regulatory Relief, and Consumer Protection Act

On May 24, 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act ("EGRRCPA") was signed into law, which amended provisions of the Dodd-Frank Act and was intended to ease, and better tailor, regulation, particularly with respect to smaller-sized institutions such as the Company. EGRRCPA's highlights include, among other things: (i) exempts banks with less than $10 billion in assets from the ability-to-repay requirements for certain qualified residential mortgage loans held in portfolio; (ii) not requiring appraisals for certain transactions valued at less than $400,000 in rural areas; (iii) clarifies that, subject to various conditions, reciprocal deposits of another depository institution obtained using a deposit broker through a deposit placement network for purposes of obtaining maximum deposit insurance would not be considered brokered deposits subject to the FDIC's brokered-deposit regulations; (iv) raises eligibility for the 18-month exam cycle from $1 billion to banks with $3 billion in assets; and (v) simplifies capital calculations by requiring regulators to establish for institutions under $10 billion in assets a community bank leverage ratio (tangible equity to average consolidated assets) at a percentage not less than 8% and not greater than 10% that such institutions may elect to replace the general applicable risk-based capital requirements for determining well capitalized status. In addition, the Federal Reserve was required to raise the asset threshold under its Small Bank Holding Company Policy Statement from $1 billion to $3 billion for bank or savings and loan holding companies that are exempt from consolidated capital requirements, provided that such companies meet certain other conditions such as not engaging in significant nonbanking activities and not having a material amount of debt or equity securities outstanding (other than trust preferred securities) that are registered with the SEC. Consistent with EGRRCPA, the Federal Reserve passed an interim final rule that became effective on August 30, 2018, to increase the asset threshold to $3 billion for qualifying for such policy statement.

Evolving Legislation and Regulatory Action

New laws or regulations or changes to existing laws and regulations, including changes in interpretation or enforcement, could materially adversely affect the Company's financial condition or results of operations. Many aspects of the Dodd-Frank Act are subject to further rulemaking and will take effect over several years. As a result, the overall financial impact on the Company and Live Oak Bank cannot be anticipated at this time.

Item 1A. RISK FACTORS

An investment in LOB common stock involves certain risks. The following discussion highlights the risks that management believes are material for the Company, but do not necessarily include all the risks that we may face. Additional risks and uncertainties that are not currently known or that management does not currently deem material could also have a material adverse impact on our business, results of our operations and financial condition. You should carefully consider the risk factors and uncertainties described below and elsewhere in this Report in evaluating an investment in LOB's common stock.

Risks Related to Our Business

We may experience increased delinquencies and credit losses, which could have a material adverse effect on our capital, financial condition, and results of operations.

Like other lenders, we face the risk that our customers will not repay their loans. A customer's failure to repay us is usually preceded by missed monthly payments. In some instances, however, a customer may declare bankruptcy prior to missing payments, and, following a borrower filing bankruptcy, a lender's recovery of the credit extended is often limited. Since many of our loans are secured by collateral, we may attempt to seize the collateral if and when a customer defaults on a loan. However, the value of the collateral might not equal the amount of the unpaid loan, and we may be unsuccessful in recovering the remaining balance from our customer. The resolution of nonperforming assets, including the initiation of foreclosure proceedings, requires significant commitments of time from management, which can be detrimental to the performance of their other responsibilities, and which expose us to additional legal costs. Elevated levels of loan delinquencies and bankruptcies in our market areas, generally, and among our customers specifically, can be precursors of future charge-offs and may require us to increase our allowance for loan and lease losses, or ALLL. Higher charge-off rates, delays in the foreclosure process or in obtaining judgments against defaulting borrowers or an increase in our ALLL may negatively impact our overall financial performance, may increase our cost of funds, and could materially adversely affect our business, results of operations and financial condition.

SBA lending and other government guaranteed lending is an important part of our business. These lending programs are dependent upon the federal government, and we face specific risks associated with originating SBA and other government guaranteed loans.

Our SBA lending program is dependent upon the federal government. As an SBA Preferred Lender, we enable our clients to obtain SBA loans without being subject to the potentially lengthy SBA approval process necessary for lenders that are not SBA Preferred Lenders. The SBA periodically reviews the lending operations of participating lenders to assess, among other things, whether the lender exhibits prudent risk management. When weaknesses are identified, the SBA may request corrective actions or impose enforcement actions, including revocation of the lender's Preferred Lender status. If we lose our status as a Preferred Lender, we may lose some or all of our customers to lenders who are SBA Preferred Lenders, and as a result we could experience a material adverse effect to our financial results. Any changes to the SBA program, including changes to the level of guarantee provided by the federal government on SBA loans, may also have a material adverse effect on our business.

During the fourth quarter of 2018, we began implementing a strategic decision to retain a larger portion of our loans eligible for sale on our balance sheet. Notwithstanding this decision, we anticipate that gains on the sale of loans will comprise a significant component of our revenue in 2019. We sell the guaranteed portion of some of our SBA 7(a) loans in the secondary market. These sales have resulted in premium income for us at the time of sale and created a stream of future servicing income. We may not be able to continue originating these loans or selling them in the secondary market. Furthermore, even if we are able to continue originating and selling SBA 7(a) loans in the secondary market, we might not continue to realize premiums upon the sale of the guaranteed portion of these loans.

When we sell the guaranteed portion of our SBA 7(a) loans, we incur credit risk on the non-guaranteed portion of the loans, and if a customer defaults on the non-guaranteed portion of a loan, we share any loss and recovery related to the loan pro-rata with the SBA. If the SBA establishes that a loss on an SBA guaranteed loan is attributable to significant technical deficiencies in the manner in which the loan was originated, funded or serviced by us, the SBA may seek recovery of the principal loss related to the deficiency from us, which could materially adversely affect our business, results of operations and financial condition.

In addition, we make loans through the Rural Energy for America Program of the United States Department of Agriculture, or the USDA, which provides guaranteed loan financing and grant funding to agricultural producers and rural small businesses for renewable energy systems or to make energy-efficient improvements, and through other USDA guaranteed lending programs. A typical SBA 7(a) loan carries a 75% guarantee while USDA guarantees range from 50% to 90% depending on loan size and type. We expect to continue to sell a large proportion of the USDA loans that we originate in the secondary market as they become eligible for sale. The origination and sale of these loans are subject to similar risks associated with the origination and sale of SBA 7(a) loans as described above.

The laws, regulations and standard operating procedures that are applicable to SBA loan products may change at any time. For example, effective January 1, 2018, the SBA changed its procedures relating to equity levels required to qualify for an SBA loan. We expect these changes will have an adverse impact on originations, particularly in our Agriculture vertical and other verticals where the borrowers historically have faced challenges meeting equity requirements for eligibility. In March 2018, the Office of Inspector General (the "OIG") for the SBA issued its Evaluation of SBA 7(a) Loans Made to Poultry Farmers. The report summarized the OIG's review of SBA 7(a) loans made to poultry farmers along with its findings and recommendations. Among other things, the OIG report concluded that the loans to poultry farmers it had reviewed did not meet regulatory and SBA requirements for eligibility. The SBA's response to the OIG report suggests that it will review the report and recommendations and determine whether to take any further action. We are still assessing the potential impact of the report and any SBA actions in response. We cannot predict the effects of future changes on our business and profitability. Because government regulation greatly affects the business and financial results of all commercial banks and bank holding companies and especially our organization, changes in the laws, regulations and procedures applicable to SBA and USDA loans could adversely affect our ability to operate profitably.

A prolonged U.S. government shutdown or default by the U.S. on government obligations would harm our results of operations.

Our results of operations, including revenue, non-interest income, expenses and net interest income, would be adversely affected in the event of widespread financial and business disruption on account of a default by the United States on U.S. government obligations or a prolonged failure to maintain significant U.S. government operations, particularly those pertaining to the SBA, the USDA or the FDIC. Any such failure to maintain such U.S. government operations would impede our ability to originate SBA loans and our ability to sell such loans in the secondary market, which would materially adversely affect our business, results of operations and financial condition. The recent U.S. government shutdown, longest in U.S. history, ended after 35 days on January 25, 2019. While this shutdown did somewhat hamper our ability to originate and sell SBA loans in the secondary market, its impact was softened by strategies put into place during 2018. As a result of these changes, including the strategic shift to sell fewer loans and liquidity initiatives, the duration of time before a U.S. government shutdown would have a material impact on the Company has significantly extended during 2018.

We are dependent upon the use of intellectual property owned by third parties, and any change in our ability to use, or the terms upon which we may use, this intellectual property could have a material adverse effect on our business.

The technology-based platform that is pivotal to our success is dependent on the use of the nCino Bank Operating System and Salesforce.com, Inc.'s Force.com cloud computing infrastructure platform. We rely on a non-exclusive license to use nCino's platform. Because our license is non-exclusive, the nCino Bank Operating System is available to other lenders and nothing would prevent our competitors from developing, licensing or using similar technology. Our license currently expires on November 14, 2021. Notwithstanding the term of our agreement, our license may be terminated if we are in material breach of the license and do not cure the breach within 30 days. In addition, nCino relies on a license to use the Salesforce.com platform, and if nCino were unable to maintain its rights under that license, our ability to rely on the nCino license could be adversely affected. We can offer no assurance that we will be able to renew or maintain our license to use the nCino Bank Operating System on terms that are acceptable. Termination of either of these licenses or the reduction or elimination of our licensed rights may result in our having to negotiate new licenses with less favorable terms, or the inability to obtain access to such licensed technology at all. Similarly, in 2018 Apiture LLC ("Apiture") provided the Bank significant engineering, development, professional and other services under an agreement we signed with Apiture in connection with the closing of the joint venture in October 2017. We are currently negotiating with Apiture for an agreement to deliver the products and services that will comprise the next-generation banking platform that we believe will be important for our future strategy and success. There can be no assurance that Apiture will agree to, or be able to, develop and support the implementation

of our new banking platform in a timely and cost-effective manner or that Apiture will continue to provide any services on which we rely at appropriate service levels or at prices that would be market competitive. See “Risks Related to Our Investment in Apiture” below for additional risks that Apiture faces, some or all of which could have a material adverse impact on our Bank as a customer of Apiture. In addition, we are an investor in Finxact, Inc., an early-stage fintech company developing an enterprise class, cloud-native Core-as-a-Service platform that we also believe will be important for our future strategy and success. If this technology is not successfully developed and implemented at our Bank, if we were to lose access to any of this technology, or if we were only able to access the technology on less favorable terms, we would not be able to offer our customers the technology-based platform services they seek from us, and our business would be materially and adversely affected.

A failure in or breach of our operational or security systems, or those of our third party service providers, including as a result of cyber-attacks, could disrupt our business, result in unintentional disclosure or misuse of confidential or proprietary information, damage our reputation, increase our costs and cause losses.

As a financial institution, our operations rely heavily on the secure data processing, storage and transmission of confidential and other information on our computer systems and networks. Any failure, interruption or breach in security or operational integrity of these systems could result in failures or disruptions in our online banking system, customer relationship management, general ledger, deposit and loan servicing and other systems. The security and integrity of our systems and the technology we use could be threatened by a variety of interruptions or information security breaches, including those caused by computer hacking, cyber-attacks, electronic fraudulent activity or attempted theft of financial assets. We may fail to promptly identify or adequately address any such failures, interruptions or security breaches if they do occur. While we have certain protective policies and procedures in place, the nature and sophistication of the threats continue to evolve. We may be required to expend significant additional resources in the future to modify and enhance our protective measures.

The nature of our business may make it an attractive target and potentially vulnerable to cyber-attacks, computer viruses, physical or electronic break-ins or similar disruptions. The technology-based platform we use processes sensitive data from our borrowers and investors. While we have taken steps to protect confidential information that we have access to, our security measures and the security measures employed by the owners of the technology in the platform that we use could be breached. Any accidental or willful security breaches or other unauthorized access to our systems could cause confidential customer, borrower, employee, vendor, partner or investor information to be stolen and used for criminal purposes. Security breaches or unauthorized access to confidential information could also expose us to liability related to the loss of the information, time-consuming and expensive litigation, and negative publicity. If security measures are breached because of third-party action, employee error, malfeasance or otherwise, or if design flaws in the technology-based platform that we use are exposed and exploited, our relationships with customers, borrowers, employees, vendors, partners and investors could be severely damaged, and we could incur significant liability.

Because techniques used to sabotage or obtain unauthorized access to systems change frequently and generally are not recognized until they are launched against a target, we and our collaborators may be unable to anticipate these techniques or to implement adequate preventative measures. In addition, federal regulators and many federal and state laws and regulations require companies to notify individuals of data security breaches involving their personal data. These mandatory disclosures regarding a security breach are costly to implement and often lead to widespread negative publicity, which may cause customers, borrowers, employees, vendors, partners or investors to lose confidence in the effectiveness of our data security measures. Any security breach, whether actual or perceived, would harm our reputation, we could lose customers, borrowers, employees, vendors, partners, or investors, and our business and operations could be adversely affected.

Additionally, we face the risk of operational disruption, failure, termination or capacity constraints of any of the third parties that facilitate our business activities, including exchanges, clearing agents, clearing houses or other financial intermediaries. Such parties could also be the source of an attack on, or breach of, our operational systems. Any failures, interruptions or security breaches in our information systems could damage our reputation, result in a loss of customer business, result in a violation of privacy or other laws, or expose us to civil litigation, regulatory fines or losses not covered by insurance.

Our business is dependent on the successful and uninterrupted functioning of our information technology and telecommunications systems and third-party providers. The failure of these systems, or the termination of a third-party software license or service agreement on which any of these systems is based, could interrupt our operations. Because our information technology and telecommunications systems interface with and depend on third-party systems, we

could experience service denials if demand for such services exceeds capacity or such third-party systems fail or experience interruptions. If significant, sustained or repeated, a system failure or service denial could compromise our ability to operate effectively, damage our reputation, result in a loss of customer business, and/or subject us to additional regulatory scrutiny and possible financial liability, any of which could materially adversely affect our business, financial condition, results of operations and prospects, as well as the value of our common stock.

A return of recessionary conditions could result in increases in our level of nonperforming loans and/or reduce demand for our products and services, which could have a material adverse effect on our results of operations.

Like all financial institutions, we are subject to certain risks resulting from a weakened economy, such as increased charge-offs and levels of past-due loans and nonperforming assets. A period of deteriorating economic conditions could adversely affect the ability of our customers to repay their loans, the value of our investments, and our ongoing operations, including our equipment leasing and title insurance businesses, costs and profitability. These events may cause us to incur losses and may materially adversely affect our business, results of operations and financial condition.

Our loan portfolio mix, which includes owner-occupied commercial real estate loans, could result in increased credit risk in a challenging economy.

Our loan portfolio is concentrated in owner-occupied commercial real estate and owner-occupied commercial business loans. These types of loans generally are viewed as carrying more risk of default than residential real estate loans or certain other types of loans or investments. In fact, the FDIC has issued pronouncements alerting banks of its concern about heavy loan concentrations in certain types of commercial real estate loans, including acquisition, construction and development loans, and heavy loan concentrations in certain geographic segments. Because a portion of our loan portfolio is composed of these types of higher-risk loans, we face an increased risk of nonperforming loans that could result in a loss of earnings from these loans, an increase in the provision for loan and lease losses, or an increase in loan charge-offs, any of which could have a material adverse impact on our business, results of operations and financial condition.

The current economic environment and any deterioration or downturn in the economies or real estate values in the markets we serve could have a material adverse effect on both borrowers' ability to repay their loans and the value of the real property securing those loans. Our ability to recover on defaulted loans would then be diminished, and we would be more likely to suffer losses on defaulted loans. Any of these developments could materially adversely affect our business, financial condition, results of operations and prospects.

The fair value of our investment securities can fluctuate due to factors outside of our control.

As of December 31, 2018, the fair value of our investment securities portfolio was approximately $380.5 million. Factors beyond our control can significantly influence the fair value of securities in our portfolio and can cause potential adverse changes to the fair value of these securities. These factors include, but are not limited to, rating agency actions in respect of the securities, defaults by the issuer or with respect to the underlying securities, monetary tapering actions by the Federal Reserve, and changes in market interest rates and potential instability in the capital markets. Any of these factors, among others, could cause other-than-temporary impairments and realized or unrealized losses in future periods and declines in other comprehensive income, which could materially and adversely affect our business, results of operations, financial condition and prospects, as well as the value of our common stock. The process for determining whether impairment of a security is other-than-temporary usually requires complex, subjective judgments about the future financial performance and liquidity of the issuer and any collateral underlying the security in order to assess the probability of receiving all contractual principal and interest payments on the security. Our inability to accurately predict the future performance of an issuer or to efficiently respond to changing market conditions could result in a decline in the value of our investment securities portfolio, which could have a material and adverse effect on our business, results of operations and financial condition.

Our allowance for loan and lease losses may prove to be insufficient to cover actual loan and lease losses, which could have a material adverse effect on our financial condition and results of operations.

Our future success depends to a significant extent upon the quality of our assets, particularly loans. In originating loans, there is a substantial likelihood that we will experience credit losses. The risk of loss will vary with, among other things, general economic conditions, including the current economic environment and real estate market, the type of loan, the creditworthiness of the borrower over the term of the loan, and, in the case of a collateralized loan, the quality of the collateral for the loan.

Our loan customers may not repay their loans according to the terms of these loans, and the collateral securing the payment of these loans may be insufficient to assure repayment. As a result, we may experience significant loan losses, which could have a material adverse effect on our operating results. Our management makes various assumptions and judgments about the collectability of our loan portfolio, including the creditworthiness of our

borrowers and the value of the real estate and other assets serving as collateral for the repayment of many of our loans. We maintain an allowance for loan and lease losses in an attempt to cover any loan and lease losses that may occur. In determining the size of the allowance, we rely on an analysis of our loan and lease portfolio based on historical loss experience, volume and types of loans and leases, trends in classification, volume and trends in delinquencies and non-accruals, national and local economic conditions, and other pertinent information.

If our assumptions are wrong, our current allowance may not be sufficient to cover future loan and lease losses, and we may need to make adjustments to allow for different economic conditions or adverse developments in our loan and lease portfolio. Material additions to our allowance in the form of provisions for loan and lease losses would materially decrease our net income. We expect our allowance to continue to fluctuate; however, given current and future market conditions, our allowance may not be adequate to cover future loan and lease losses.

In addition, federal and state regulators periodically review our allowance for loan and lease losses and may require us to increase our provision for loan and lease losses or recognize further loan charge-offs, based on judgments different than those of our management. Any increase in our allowance for loan and lease losses or loan charge-offs as required by these regulators could have a negative effect on our operating results and could materially adversely affect our business, results of operations and financial condition.

The valuation of our servicing rights is based on estimates and subject to fluctuation based on market conditions and other factors that are beyond our control.

The fair value of our servicing rights is estimated based upon projections of expected future cash flows generated by the loans we service, historical prepayment rates, future prepayment estimates, portfolio characteristics, interest rates based on interest rate yield curves, volatility, market demand for servicing rights and other factors. While this evaluation process uses historical and other objective information, the valuation of our servicing rights is ultimately an estimate based on our experience, judgment and expectations regarding our servicing portfolio and the broader market. This is an inherently uncertain process and the value of our servicing rights may be adversely impacted by factors that are beyond our control, which may in turn have a material adverse effect on our business, results of operations and financial condition.

The recognition of gains on the sale of loans reflects certain assumptions.

During the fourth quarter of 2018, we began implementing a strategic decision to retain a larger portion of our loans eligible for sale on our balance sheet. Notwithstanding this decision, we anticipate that gains on the sale of loans will comprise a significant component of our revenue in 2019. Noncash gains recognized in the years ended December 31, 2018, 2017 and 2016 were $4.1 million, $6.2 million and $7.1 million respectively. The determination of these noncash gains is based on assumptions regarding the value of unguaranteed loans retained, servicing rights retained and deferred fees and costs. The value of retained unguaranteed loans and servicing rights are determined by our wholly owned subsidiary, GLS, which applies market derived factors such as prepayment rates, current market conditions and recent loan sales to arrive at valuations. Deferred fees and costs are determined using internal analysis of the cost to originate loans. Significant errors in assumptions used to compute gains on sale of loans could result in material revenue misstatements, which may have a material adverse effect on our business, results of operations and profitability. In addition, while we believe that the valuations provided by GLS are at arm’s length, reflect fair value and are reperformed for indications of bias by an independent third party on a biannual basis, if such valuations are not reflective of fair market value then our business, results of operations and financial condition may be materially and adversely affected.

We anticipate that going forward we will experience increasing growth in our held-for-sale and held-for-investment loan portfolios due to our strategic business decisions and increasing construction portfolio.

Our revenue model has historically been driven by selling loans that we originate, or a portion of the loans, in the secondary market when fully funded. The growth of our construction portfolio that typically funds in stages will result in a decrease in the volume of loans sold relative to production in any period, which, in turn, decreases our revenue relative to production in any period. In addition, we anticipate growth in our loans held for investment due to our origination of loans that we choose not to sell or for which there is no secondary market or due to other strategic choices, including the pursuit of potential opportunities in conventional lending outside of SBA or other government guarantee programs. During the fourth quarter of 2018, we began implementing a strategic decision to retain a larger portion of our loans eligible for sale on our balance sheet. Growth in our held-for-sale and our held-for-investment loan portfolios exposes us to increased interest rate and credit risks.

Our rental equipment is subject to residual value risk upon disposition, and may not sell at the prices or in the quantities we expect.

The market value of any given piece of rental equipment could be less than its depreciated value at the time it is sold. The market value of used rental equipment depends on several factors, including:

- the market price for new equipment of a like kind;
- the age of the equipment at the time it is sold, as well as wear and tear on the equipment relative to its age;
- the supply of used equipment on the market;
- technological advances relating to the equipment;

- demand for the used equipment; and
- general economic conditions.

We include in income from operations the difference between the sales price and the depreciated value of an item of equipment sold. Changes in our assumptions regarding depreciation could change our depreciation expense, as well as the gain or loss realized upon disposal of equipment. Sales of our used rental equipment at prices that fall significantly below our projections or in lesser quantities than we anticipate will have a negative impact on our results of operations and cash flows.

We are subject to liquidity risk in our operations.

Liquidity risk is the possibility of being unable, at a reasonable cost and within acceptable risk tolerances, to pay obligations as they come due, to capitalize on growth opportunities as they arise, or to pay regular dividends because of an inability to liquidate assets or obtain adequate funding on a timely basis. Liquidity is required to fund various obligations, including credit obligations to borrowers, loan originations, withdrawals by depositors, repayment of debt, dividends to shareholders, operating expenses, and capital expenditures. Our liquidity is derived primarily from the sale of loans in the secondary market, retail deposit growth and retention, principal and interest payments on loans and investment securities, net cash provided from operations, and access to other funding sources. A significant portion of our deposit base is gathered through our nationwide direct deposit platform, and we have historically also relied on brokered deposits. If our Bank were to become less than well capitalized, we could not offer an effective yield on our deposits in excess of 75 basis points over the “national rate” as defined in applicable FDIC rules. We also could not accept brokered deposits without FDIC approval. See “Capital Adequacy” under the heading “Supervision and Regulation” above for more details on these restrictions. If we became subject to these restrictions, they could have a material adverse effect on our liquidity, results of operations and financial condition.

Our access to funding sources in amounts adequate to finance our activities or at a reasonable cost could be impaired by factors that affect us specifically or the financial services industry in general. Factors that could adversely affect our access to liquidity sources include a decrease in the level of our business activity due to a market downturn, our lack of access to a traditional branch banking network designed to generate core deposits and adverse regulatory action against us. Our ability to borrow could also be impaired by factors that are not specific to us, such as a severe disruption in the financial markets or negative views and expectations about the prospects for the financial services industry as a whole. Our access to borrowed funds could become limited in the future, and we may be required to pay above market rates for additional borrowed funds, if we are able to obtain them at all, which may adversely affect our business, results of operations and financial condition.

The amount of other real estate owned, or OREO, may increase significantly, resulting in additional losses, and costs and expenses that will negatively affect our operations.

In connection with our banking business, we take title to real estate collateral from time to time through foreclosure or otherwise in connection with efforts to collect debts previously contracted. Such real estate is referred to as other real estate owned, or OREO. As the amount of OREO increases, our losses, and the costs and expenses to maintain the real estate, likewise increase. The amount of OREO we hold may increase due to various economic conditions or other factors. Any additional increase in losses and maintenance costs and other expenses due to OREO may have a material adverse effect on our business, results of operations and financial condition. Such effects may be particularly pronounced in a market of reduced real estate values and excess inventory, which may make the disposition of OREO properties more difficult, increase maintenance costs and other expenses, and reduce our ultimate realization from any OREO sales. In addition, at the time of acquisition of the OREO we are required to reflect its fair market value in our financial statements. If the OREO declines in value subsequent to its acquisition, we are required to recognize a loss. As a result, declines in the value of our OREO will have a negative effect on our business, results of operations and financial condition. As of December 31, 2018, we had three OREO properties with an aggregate carrying value of

$1.1 million. For more information about amounts held in OREO, see Note 12 to our audited consolidated financial statements as of and for the year ended December 31, 2018 filed with this Report.

We are subject to environmental liability risk associated with our lending activities.

A significant portion of our loan portfolio is secured by real property. During the ordinary course of business, we may foreclose on and take title to properties securing certain loans. In doing so, there is a risk that hazardous or toxic substances could be found on these properties. If hazardous or toxic substances are found, we may be liable for remediation costs, as well as for personal injury and property damage. Environmental laws may require us to incur substantial expenses and may materially reduce the affected property's value or limit our ability to use or sell the affected property. In addition, future laws or more stringent interpretations or enforcement policies with respect to existing laws may increase our exposure to environmental liability. The remediation costs and any other financial liabilities associated with an environmental hazard could have a material adverse effect on our business, results of operations and financial condition.

Our use of appraisals in deciding whether to make a loan secured by real property or how to value the loan in the future may not accurately reflect the net value of the collateral that we can realize.

In considering whether to make a loan secured by real property, we generally require an appraisal of the property. However, an appraisal is only an estimate of the value of the property at the time the appraisal is made, and, as real estate values may experience changes in value in relatively short periods of time, especially during periods of heightened economic uncertainty, this estimate might not accurately describe the net value of the real property collateral after the loan has been closed. If the appraisal does not reflect the amount that may be obtained upon any sale or foreclosure of the property, we may not realize an amount equal to the indebtedness secured by the property. In addition, we rely on appraisals and other valuation techniques to establish the value of our OREO and to determine certain loan impairments. If any of these valuations are inaccurate, our consolidated financial statements may not reflect the correct value of OREO, and our Allowance for loan and lease losses may not reflect accurate loan impairments. The valuation of the properties securing the loans in our portfolio may negatively impact the continuing value of those loans and could materially adversely affect our business, results of operations and financial condition.

We could be subject to losses, regulatory action or reputational harm due to fraudulent and negligent acts on the part of loan applicants, our borrowers, our employees and vendors.

In deciding whether to extend credit or enter into other transactions with customers and counterparties, we may rely on information furnished by or on behalf of customers and counterparties, including financial statements, property appraisals, title information, employment and income documentation, account information and other financial information. We may also rely on representations of clients and counterparties as to the accuracy and completeness of such information and, with respect to financial statements, on reports of independent auditors. Any such misrepresentation or incorrect or incomplete information may not be detected prior to funding a loan or during our ongoing monitoring of outstanding loans. In addition, one or more of our employees or vendors could cause a significant operational breakdown or failure, either as a result of human error or where an individual purposefully sabotages or fraudulently manipulates our loan documentation, operations or systems. Any of these developments could have a material adverse effect on our business, results of operations and financial condition.

We may fail to realize all of the anticipated benefits, including estimated cost savings, of potential future acquisitions.

In the future, we may encounter difficulties in obtaining required regulatory approvals for, or face unexpected contingent liabilities from, businesses we may acquire. Integration of an acquired business can be complex and costly, sometimes including combining relevant accounting and data processing systems and management controls, as well as managing relevant relationships with employees, customers, suppliers and other business partners. Integration efforts could divert management attention and resources, which could adversely affect our business, results of operations and financial condition. Additionally, during periods of market volatility and uncertainty, we may also experience

increased credit costs or need to take additional markdowns and allowances for loan losses on assets and loans we may acquire. These increased credit costs, markdowns and allowances could materially adversely affect our financial condition and results of operations, as well as the value of our common stock.

Implementation of our growth strategy depends, in part, on our ability to successfully identify acquisition opportunities and strategic partners that will complement our operating philosophy, and also on the successful integration of their operations with our own. To successfully acquire target companies or establish complementary lines of business, we must be able to correctly identify profitable or growing markets, as well as attract the necessary relationships and high caliber personnel to make these new business lines profitable. In addition, we may not be able to identify suitable opportunities for further growth and expansion. As consolidation of the financial services industry continues, the competition for suitable acquisition candidates may increase. We will compete with other financial services companies for acquisition opportunities, and many of these competitors have greater financial resources than we do and may be able to pay more for an acquisition than we are able or willing to pay. If we are unable to effectively implement our growth strategies, our business, results of operations and financial condition may be materially and adversely affected.

Acquisitions may be delayed, impeded, or prohibited due to regulatory issues.

Acquisitions by the Company or the Bank, particularly those of financial institutions, are subject to approval by a variety of federal and state regulatory agencies. Regulatory approvals could be delayed, impeded, restrictively conditioned or denied due to regulatory issues we have, or may have, with regulatory agencies, including, without limitation, issues related to the CRA; fair lending laws; fair housing laws; consumer protection laws; unfair, deceptive, or abusive acts or practices regulations; and other similar laws and regulations. We may fail to pursue, evaluate or complete strategic and competitively significant acquisition opportunities as a result of our inability, or perceived or anticipated inability, to obtain regulatory approvals in a timely manner, under reasonable conditions or at all. Difficulties associated with potential acquisitions that may result from these factors could have a material adverse impact on our business, and, in turn, our financial condition and results of operations.

The value of our goodwill and other intangible assets may decline in the future.

In connection with our acquisitions, we have generally recognized intangible assets, including goodwill, in our consolidated balance sheet. We may not realize the value of these assets. Management performs an annual review of the carrying values of any goodwill and indefinite-lived intangible assets and periodic reviews of the carrying values of all other intangible assets to determine whether events and circumstances indicate that an impairment in value may have occurred. A variety of factors could cause the carrying value of an asset to become impaired. Should a review indicate impairment, a write-down of the carrying value of the asset would occur, resulting in a non-cash charge which would adversely affect our results of operations for the period. All goodwill and intangibles recorded in 2017 were related to the acquisition of Reltco. On August 1, 2018, the Company financed the sale of its entire interest in Reltco for $3.0 million. The Company's divestiture was driven by expectations of future profitability under current market conditions impacting the mortgage industry. See Note 2. Title Insurance Business for further information on this transaction and related financial impacts. Although we did not have any goodwill or other intangible assets on our balance sheet as of December 31, 2018, we may recognize intangible assets in connection with future acquisitions.

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

From time to time, we may develop, grow and/or acquire new lines of business or offer new products and services within existing lines of business. There are substantial risks and uncertainties associated with these efforts, particularly in instances where the markets are not fully developed. In developing and marketing new lines of business and/or new products and services, we may invest significant time and resources. Initial timetables for the introduction and development of new lines of business and/or new products or services may not be achieved and price and profitability targets may not prove feasible. External factors, such as compliance with regulations, competitive alternatives and shifting market preferences, may also impact the successful implementation of a new line of business or a new product or service. Furthermore, any new line of business and/or new product or service could have a significant impact on the

effectiveness of our system of internal controls. Failure to successfully manage these risks in the development and implementation of new lines of business or new products or services could have a material adverse effect on our business, results of operations and financial condition. All service offerings, including current offerings and those which may be provided in the future, may become more risky due to changes in economic, competitive and market conditions beyond our control.

Changes in the interest rate environment could reduce our net interest income, which could reduce our profitability.

As a financial institution, our earnings depend in part on our net interest income, which is the difference between the interest income that we earn on interest-earning assets, such as investment securities and loans, and the interest expense that we pay on interest-bearing liabilities, such as deposits and borrowings. Additionally, changes in interest rates affect the premiums we may receive in connection with the sale of SBA 7(a) and USDA loans in the secondary market, pre-payment speeds of loans for which we own servicing rights, our ability to fund our operations with customer deposits, and the fair value of securities in our investment portfolio. Therefore, any change in general market interest rates, including changes in federal fiscal and monetary policies, affects us more than non-financial companies and can have a significant effect on our net interest income and results of operations. Our assets and liabilities may react differently to changes in overall market rates or conditions because there may be mismatches between the repricing or maturity characteristics of the assets and liabilities. As a result, an increase or decrease in market interest rates could have material adverse effects on our net interest margin, noninterest income and results of operations. In a rising interest rate environment, potential borrowers could seek to defer loans as they wait for interest rates to settle, and borrowers of variable rate loans may be subject to increased interest rates, which could result in a greater rate of prepayment or default. Changes in interest rates may also present additional challenges to our business that we have not anticipated.

We may be adversely impacted by the transition from LIBOR as a reference rate.

In 2017, the United Kingdom's Financial Conduct Authority announced that after 2021 it would no longer compel banks to submit the rates required to calculate the London Interbank Offered Rate ("LIBOR"). This announcement indicates that the continuation of LIBOR on the current basis cannot and will not be guaranteed after 2021. Consequently, at this time, it is not possible to predict whether and to what extent banks will continue to provide submissions for the calculation of LIBOR. Similarly, it is not possible to predict whether LIBOR will continue to be viewed as an acceptable market benchmark, what rate or rates may become accepted alternatives to LIBOR, or what the effect of any such changes in views or alternatives may be on the markets for LIBOR-indexed financial instruments.

We have loans and other financial instruments with attributes that are either directly or indirectly dependent on LIBOR. The transition from LIBOR could create considerable costs and additional risk. Since proposed alternative rates are calculated differently, payments under contracts referencing new rates will differ from those referencing LIBOR. The transition will change our market risk profiles, requiring changes to risk and pricing models, valuation tools, product design and hedging strategies. Furthermore, failure to adequately manage this transition process with our customers could adversely impact our reputation. Although we are currently unable to assess what the ultimate impact of the transition from LIBOR will be, failure to adequately manage the transition could have a material adverse effect on our business, financial condition and results of operations.

We face strong competition from a diverse group of competitors.

The banking business is highly competitive, and we experience strong competition from many other financial institutions, including some of the largest commercial banks headquartered in the country, as well as other federally and state chartered financial institutions such as community banks and credit unions, finance and business development companies, consumer finance companies, peer-to-peer and marketplace lenders, securities brokerage firms, insurance companies, money market and mutual funds and other non-bank lenders.

We compete with these institutions both in attracting deposits and in making loans, primarily on the basis of the interest rates we pay and yield on these products. We also compete with these institutions in our other business lines, including equipment leasing and title insurance. Many of our competitors are well-established, much larger financial

institutions. While we believe we can successfully compete with these other lenders in our industry verticals, we may face a competitive disadvantage as a result of our smaller size. Furthermore, nothing would prevent our competitors from developing or licensing a technology-based platform similar to the technology-based platform we currently use in our business. In addition, many of our non-bank competitors have fewer regulatory constraints and may have lower cost structures. We expect competition to continue to intensify due to financial institution consolidation, legislative, regulatory and technological changes, and the emergence of alternative banking sources.

Our ability to compete successfully will depend on a number of factors, including, among other things:

- our ability to build and maintain long-term customer relationships while ensuring high ethical standards and safe and sound banking practices;

- the scope, relevance and pricing of products and services that we offer;
- customer satisfaction with our products and services;
- industry and general economic trends; and
- our ability to keep pace with technological advances and to invest in new technology.

Increased competition could require us to increase the rates we pay on deposits or lower the rates we offer on loans, which could reduce our profitability. Our failure to compete effectively in our primary markets could cause us to lose market share and could have a material adverse effect our business, results of operations and financial condition.

Our investments and/or financings in certain tax-advantaged projects may not generate returns as anticipated and may have an adverse impact on our financial results.

We invest in and/or finance certain tax-advantaged projects promoting renewable energy sources. Our investments in these projects are designed to generate a return primarily through the realization of federal and state income tax credits, and other tax benefits, over specified time periods. We utilize an investment tax credit for the installation of certain solar power facilities. We are subject to the risk that previously recorded tax credits, which remain subject to recapture by taxing authorities based on compliance features required to be met at the project level, will fail to meet certain government compliance requirements and will not be able to be fully realized. The possible inability to realize these tax credits and other tax benefits can have a negative impact on our financial results. The risk of not being able to realize the tax credits and other tax benefits depends on many factors outside of our control, including changes in the applicable provisions of the tax code and the ability of the projects to be completed and properly managed. In addition, we make loans through the USDA's Rural Energy for America Program, which provides guaranteed loan financing and grant funding to agricultural producers and rural small businesses for renewable energy systems or to make energy-efficient improvements. Any changes to applicable provisions of the tax code or other developments could adversely impact demand for these loans even where we are not utilizing an investment tax credit.

Our loan portfolio may be affected by deterioration in real estate markets, including declines in the performance of loans.

Deterioration in real estate markets could result in declining prices and excess inventories. As a result, developers may experience financial deterioration and banking institutions may experience declines in the performance of construction, development and commercial loans. We make credit and reserve decisions based on the current conditions of borrowers or projects combined with our expectations for the future. If conditions are worse than forecast, we could experience higher charge-offs and delinquencies than is provided in the allowance for loan and lease losses, which could materially adversely affect our business, results of operations and financial condition.

Deterioration in the fiscal position of the U.S. federal government and downgrades in U.S. Treasury and federal agency securities could adversely affect us and our subsidiary's banking operations.

The long-term outlook for the fiscal position of the U.S. federal government is uncertain, as illustrated by the 2011 downgrade by certain rating agencies of the credit rating of the U.S. government and federal agencies. In addition to causing economic and financial market disruptions, any future downgrade, failure to raise the U.S. statutory debt limit, or deterioration in the fiscal outlook of the U.S. federal government, could, among other things, materially adversely affect the market value of the U.S. government and federal agency securities that we hold, the availability of those securities as collateral for borrowing, and our ability to access capital markets on favorable terms. In particular, it could increase interest rates and disrupt payment systems, money markets, and long-term or short-term fixed income markets, adversely affecting the cost and availability of funding, which could negatively affect our profitability. Also, the adverse consequences could extend to those to whom we extend credit and could adversely affect their ability to repay their loans. Any of these developments could materially adversely affect our business, results of operations and financial condition.

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Deterioration in the commercial soundness of our counterparties could adversely affect us.

Our ability to engage in routine funding transactions could be adversely affected by the actions and commercial soundness of other financial institutions. Financial services institutions are interrelated as a result of trading, clearing, counterparty or other relationships, and we routinely execute transactions with counterparties in the financial industry. As a result, defaults by, or even rumors or questions about, one or more financial services institutions, or the financial services industry generally, could create another market-wide liquidity crisis similar to that experienced in late 2008 and early 2009 and could lead to losses or defaults by us or by other institutions. The deterioration or failure of our counterparties would have a material adverse effect on our business, results of operations and financial condition.

We have different lending risks than larger, more diversified banks.

Our ability to diversify our economic risks is limited. We lend primarily to small businesses in selected industries, which may expose us to greater lending risks than those of banks lending to larger, better-capitalized businesses with longer operating histories. Small businesses generally have fewer financial resources in terms of capital or borrowing capacity than larger entities and may have limited operating histories. If economic conditions negatively impact the verticals in which we operate, our business, results of operations and financial condition may be adversely affected.

We attempt to manage our credit exposure through careful monitoring of loan applicants and through loan approval and review procedures. We have established an evaluation process designed to determine the adequacy of our allowance for loan and lease losses. While this evaluation process uses historical and other objective information, the classification of loans and the establishment of loan losses is an estimate based on experience, judgment and expectations regarding our borrowers, and the economies in which we and our borrowers operate, as well as the judgment of our regulators. This is an inherently uncertain process, and our loan loss reserves may not be sufficient to absorb future loan losses or prevent a material adverse effect on our business, results of operations and financial condition.

We rely heavily on our management team, and the unexpected loss of any of those personnel could adversely affect our operations; we depend on our ability to attract and retain key personnel.

We are a customer-focused and relationship-driven organization. We expect our future growth to be driven in a large part by the relationships maintained with our customers by our chief executive officer, president, and other senior officers. The unexpected loss of any of our key employees could have an adverse effect on our business, results of operations and financial condition. The implementation of our business strategy will also require us to continue to attract, hire, motivate and retain skilled personnel to develop new customer relationships as well as new financial products and services. We are not party to non-compete or non-solicitation agreements with any of our officers or employees. The market for qualified employees in the businesses in which we operate is competitive, and we may not be successful in attracting, hiring or retaining key personnel. Our inability to attract, hire or retain key personnel could have a material adverse effect on our business, results of operations and financial condition.

Our risk management framework may not be effective in mitigating risks and/or losses to us.

We have implemented a risk management framework to manage our risk exposure. This framework is comprised of various processes, systems and strategies, and is designed to manage the types of risk to which we are subject, including, among others, credit, market, liquidity, interest rate and compliance risks. Our framework also includes financial and other modeling methodologies which involve management assumptions and judgment. Our risk management framework may not be effective under all circumstances and it may fail to adequately mitigate risk or loss to us. If our framework is not effective, we could suffer unexpected losses and be subject to potentially adverse regulatory consequences, and our business, results of operations and financial condition could be materially and

adversely affected.

Hurricanes or other adverse weather events could disrupt our operations, which could have an adverse effect on our business or results of operations.

North Carolina's coastal region is affected, from time to time, by adverse weather events, particularly hurricanes. We cannot predict whether, or to what extent, damage caused by future hurricanes or other weather events will affect our operations. Weather events could cause a disruption in our day-to-day business activities and could have a material adverse effect on our business, results of operations and financial condition.

Outbreaks of avian disease, such as avian influenza, or the perception that outbreaks may occur, could have a material adverse effect on lending operations in our Agriculture vertical.

Pandemic events beyond our control, such as an outbreak of avian disease, or “bird flu,” could have a material adverse effect on the performance of our portfolio of loans in our Agriculture vertical and on the demand for new loans in this vertical. An outbreak of disease could result in governmental restrictions on the import and export of fresh and frozen chicken or other poultry products to or from our customers. This could result in the cancellation of orders and the curtailment of farming operations by our customers and could create adverse publicity that may have a material adverse effect on the performance of our existing loans and future business prospects in our Agriculture vertical. In addition, consumer fears about avian disease have, in the past, depressed demand for fresh poultry, which may adversely impact the demand for future loans and the performance of existing loans in our Agriculture vertical.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results. As a result, current and potential shareholders could lose confidence in our financial reporting which would harm our business and the trading price of our securities.

If we identify material weaknesses in our internal control over financial reporting or are otherwise required to restate our financial statements, we could be required to implement expensive and time-consuming remedial measures and could lose investor confidence in the accuracy and completeness of our financial reports. We may also face regulatory enforcement or other actions, including the potential delisting of our securities from NASDAQ. This could have a material adverse effect on our business, financial condition and results of operations, and could subject us to litigation.

Changes in accounting standards and management’s selection of accounting methods, including assumptions and estimates, could materially impact our financial statements.

From time to time the SEC and the Financial Accounting Standards Board, or FASB, update accounting principles generally accepted in the United States ("GAAP") 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 changes to previously reported financial results, or a cumulative charge to retained earnings. In addition, management is required to use certain assumptions and estimates in preparing our financial statements, including determining the fair value of certain assets and liabilities, among other items. If the assumptions or estimates are incorrect, we may experience unexpected material adverse consequences that could negatively affect our business, results of operations and financial condition.

The FASB has issued an accounting standard update that will result in a significant change in how we recognize credit losses and may have a material impact on our financial condition or results of operations.

In June 2016, the FASB issued an accounting standard update, “Financial Instruments-Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments,” which replaces the current “incurred loss” model for recognizing credit losses with an “expected loss” model referred to as the Current Expected Credit Loss (“CECL”) model. Under the CECL model, we will be required to present certain financial assets carried at amortized cost, such as loans and leases held for investment and held-to-maturity debt securities, at the net amount expected to be collected over the contractual life of the financial instrument. The measurement of expected credit losses is to be based on information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. This measurement will take place at the time the financial asset is first added to the balance sheet and periodically thereafter. This differs significantly from the “incurred loss” model required under current GAAP, which delays recognition until it is probable a loss has been incurred. Accordingly, we expect that the adoption of the CECL model will materially affect how we determine our allowance for loan and lease losses

and could require us to significantly increase our allowance. Moreover, the CECL model may create more volatility in the level of our allowance for loan and lease losses. If we are required to materially increase our level of allowance for loan and lease losses for any reason, such increase could adversely affect our business, financial condition and results of operations.

The new CECL standard will become effective for us on January 1, 2020. We are currently evaluating the impact the CECL model will have on our accounting, but we expect to recognize a one-time cumulative-effect adjustment to our allowance for loan and lease losses as of the beginning of the first reporting period in which the new standard is effective, consistent with regulatory expectations set forth in interagency guidance issued at the end of 2016. We cannot yet determine the magnitude of any such one-time cumulative adjustment or of the overall impact of the new standard on our financial condition, results of operations or impact on regulatory capital requirements.

Our business reputation is important and any damage to it could have a material adverse effect on our business.

Our reputation is very important to sustain our business, as we rely on our relationships with our current, former and potential customers and shareholders, and the industries that we serve. Any damage to our reputation, whether arising from legal, regulatory, supervisory or enforcement actions, matters affecting our financial reporting or compliance with SEC and exchange listing requirements, negative publicity, the conduct of our business or otherwise could have a material adverse effect on our business, results of operations and financial condition.

Insiders have substantial control over us, and this control may limit our shareholders' ability to influence corporate matters and may delay or prevent a third party from acquiring control over us.

As of January 31, 2019, our directors and executive officers and their related entities currently beneficially own, in the aggregate, approximately 25.9% of our outstanding common stock. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors' perception that conflicts of interest may exist or arise. In addition, these shareholders will be able to exercise influence over all matters requiring shareholder approval, including the election of directors and approval of corporate transactions, such as a merger or other sale of our company or its assets. This concentration of ownership could limit your ability to influence corporate matters and may have the effect of delaying or preventing a change in control, including a merger, consolidation or other business combination involving us, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control, even if that change in control would benefit our other shareholders. For information regarding the ownership of our outstanding stock by our executive officers and directors and related entities, see "Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters" in this Report.

Risks Related to Our Investment in Apiture

If the market for Apiture's digital banking solutions develops more slowly than we expect or changes in ways that we fail to anticipate, our operating results would be adversely affected.

Use of and reliance on digital banking solutions is at an early stage, and we do not know whether the market will develop more slowly than we anticipate. Many financial institutions have invested substantial resources in legacy software, and these institutions may be reluctant or unwilling to convert from their existing systems to Apiture's digital banking solutions. Furthermore, for most financial institutions, transitioning from an existing software provider (or from an internally developed legacy system) to a new provider is a significant and expensive undertaking. Potential customers of Apiture's digital banking solutions may conclude that switching providers involves too many potential disadvantages such as disruption of business operations, loss of accustomed functionality and increased costs (including conversion and transition costs). Furthermore, some financial institutions may be reluctant or unwilling to use a cloud-based solution over concerns such as the security of their data and reliability of the delivery model. These concerns or other considerations may cause potential customers to choose not to adopt cloud-based solutions such as those being developed by Apiture or to adopt alternative solutions, either of which could have a material adverse impact on our business, results of operations and financial condition.

Apiture's future success will depend on its ability to develop, sell and deliver new or enhanced solutions to financial institution clients; however, these solutions and related services may not be attractive to existing or prospective clients. In addition, promoting, selling and delivering these new and enhanced solutions may require increasingly costly sales, marketing and implementation efforts, and if existing or prospective clients choose not to adopt these solutions, our business, results of operations and financial condition could be materially and adversely affected.

Apiture may experience development delays or software defects, which could adversely impact its potential profitability and our results of operations.

Apiture's digital banking solution will require sophisticated software and computing systems that may encounter development delays or software defects. Defects in Apiture's software offerings or delays in the development of such software could result in unforeseen costs, diversion of technical and other resources, loss of credibility with existing and potential clients or reputational harm, any of which could materially adversely affect our business, results of operations and financial condition. Furthermore, to the extent that the Bank is involved in beta testing or early adoption of Apiture's digital banking solutions, the Bank's personnel and resources may be diverted from the day-to-day operation of the Bank, and the Bank's operations may be adversely impacted.

Apiture's ability to anticipate and respond to changing industry trends and the needs and preferences of financial institution clients may affect its competitiveness or demand for its digital banking solutions, which may adversely affect our operating results.

The financial services, payments, and technology industries are subject to rapid technological advancements, new products and services, an evolving competitive landscape, developing industry standards and changing client and consumer needs and preferences. We expect that new services and technologies applicable to the financial services, payments and technology industries will continue to emerge and evolve. These changes in technology may limit the competitiveness of and demand for products or services offered by Apiture. Also, Apiture's existing and prospective financial institution clients and their respective customers continue to adopt new technology for business and personal uses. Apiture must anticipate and respond to these changes in order to compete in its market.

Apiture's failure to develop products and services that meet the needs and preferences of its clients could have an adverse effect on its ability to compete effectively. Furthermore, potential negative reaction to Apiture's products and services can spread quickly through social media and damage its reputation before it has the opportunity to respond. If Apiture is unable to anticipate or respond to technological changes or evolving industry demands on a timely basis, our business, results of operations and financial condition could be materially adversely affected.

If Apiture is unable to effectively integrate its digital banking solutions with other systems used by financial institutions, its solutions will not operate effectively and our results of operations could be adversely affected.

The functionality of Apiture's digital banking solutions will depend on its ability to integrate with other third-party systems used by potential clients, including well-established core processing systems. Certain providers of these third-party systems also offer solutions that are competitive to the solutions being developed by Apiture and may have an advantage with clients already using their software by having better ability to integrate with their software and by being able to bundle their competitive products with other applications used by Apiture's existing and prospective financial institution clients at favorable pricing.

Security breaches or attacks on Apiture's systems may have a significant effect on our business.

In order to offer its products and services, Apiture must process, store, and transmit sensitive business information and personal consumer information, including, but not limited to, names, bankcard numbers, home or business addresses, social security numbers, driver's license numbers and bank account numbers. Under various federal, state and international laws, Apiture is responsible for information provided to it by financial institutions, merchants, third-party service providers, and others. Maintaining the confidentiality of such sensitive business information and personal consumer information will be critical to Apiture's business; however, Apiture cannot be certain that the security measures and procedures it puts in place to protect this sensitive data will be successful or sufficient to counter all current and emerging technology threats designed to breach network security in order to gain access to confidential information. The increasing sophistication of cyber criminals and their continuous attempts to breach networks presents risk of a security breach of Apiture's systems. A breach of Apiture's systems processing or storing sensitive business information or personal consumer information could lead to claims against it, reputational damage, lost clients and lost revenue, substantial additional costs (including costs of notification of consumers, credit monitoring, card reissuance, contact centers and forensics), loss of clients' and their customers' confidence, as well as imposition of fines and damages, all of which could materially adversely affect our business, results of operations and financial condition. In addition, as security threats continue to evolve, Apiture will be required to invest additional resources to modify and update the security of its systems. The level of required investment could materially adversely affect our business, results of operations and financial condition.

Apiture may experience breakdowns in its processing systems that could damage client relations and expose it to liability.

Apiture's business will rely heavily on the reliability of its processing systems. A system outage could have a material adverse effect on Apiture's business, financial condition, and results of operations. Not only would it suffer damage to its reputation in the event of a system outage, but Apiture may also be liable to third parties. To successfully operate its business, Apiture must be able to protect its processing and other systems from interruption, including from events that may be beyond its reasonable control. Events that could cause system interruptions include, but are not limited to, fire, natural disaster, unauthorized entry, power loss, telecommunications failure, computer viruses, terrorist acts, cyber attacks and war. To the extent Apiture outsources its disaster recovery functions, it is at risk of the vendor's unresponsiveness or other failures in the event of system breakdowns.

Risks Related to Our Regulatory Environment

We are subject to extensive regulation that could limit or restrict our activities.

We operate in a highly regulated industry and are subject to examination, supervision, and comprehensive regulation by various federal and state regulatory agencies. Our compliance with these regulations is costly and restricts certain of our activities, including the declaration and payment of cash dividends to shareholders, mergers and acquisitions, investments, loans and interest rates charged, interest rates paid on deposits, and locations of offices. We are also subject to capitalization guidelines established by our regulators, which require us to maintain adequate capital to support our growth and operations. See “Supervision and Regulation” above for more information on the federal and state laws, rules and regulations that apply to our business activities. Should we fail to comply with these regulatory requirements, federal and state regulators could impose additional restrictions on the activities of the Company and the Bank, which could materially and adversely affect our business, results of operations and financial condition.

The laws and regulations applicable to the banking industry have changed in recent years and may continue to change, and we cannot predict the effects of these changes on our business and profitability. Because government regulation greatly affects the business and financial results of all commercial banks and bank holding companies, our cost of compliance could adversely affect our business, results of operations and financial condition.

The Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, was enacted on July 21, 2010. The provisions of the Dodd-Frank Act, and its implementing regulations may materially and adversely affect our business, results of operations and financial condition. Some or all of the changes, including the rulemaking authority granted to the Consumer Financial Protection Bureau, or the CFPB, may result in greater liability, reporting requirements, assessment fees, operational restrictions, capital requirements, and other regulatory burdens applicable to us while many of our non-bank competitors may remain free from such burdens. The changes arising out of the Dodd-Frank Act could adversely affect our ability to attract and maintain depositors, to offer competitive products and services, to attract and retain key personnel and to expand our business.

Congress may consider additional proposals to change substantially the financial institution regulatory system and to expand or contract the powers of banking institutions and bank holding companies. Such legislation may change existing banking statutes and regulations, as well as our current operating environment significantly. If enacted, such legislation could increase or decrease the cost of doing business, limit or expand our permissible activities, or affect the competitive balance among banks, savings associations, credit unions, other financial institutions and non-bank lenders. We cannot predict whether new legislation will be enacted and, if enacted, the effect that it, or any regulations, would have on our business, results of operations or financial condition.

Our financial condition and results of operations are affected by credit policies of monetary authorities, particularly the Federal Reserve. Actions by monetary and fiscal authorities, including the Federal Reserve, could have an adverse effect on our deposit levels, loan demand, or business and earnings, as well as the value of our common stock.

On February 3, 2017, the President of the United States issued an executive order identifying “core principles” for the administration’s financial services regulatory policy and directing the Secretary of the Treasury, in consultation with the heads of other financial regulatory agencies, to evaluate how the current regulatory framework promotes or inhibits the principles and what actions have been, and are being, taken to promote the principles. In response to the executive order, on June 12, 2017, October 6, 2017, October 26, 2017, and July 31, 2018, respectively, the U.S. Department of the Treasury issued four separate reports recommending a number of comprehensive changes in the current regulatory system for U.S. depository institutions, the U.S. capital markets, the U.S. asset management and insurance industries, and nonbank financial institutions. It is not clear whether the executive order will result in material changes to the current laws and rules, or those that are in process, applicable to financial institutions and

financial services or products like ours. It also is not clear what the impact from any such changes would be on our business or the markets and industries in which we compete. There is no guarantee that any changes from this review would be positive for us, and any such changes could have a material adverse impact on our business and our prospects.

We may be required to raise additional capital in the future, including to comply with increased minimum capital thresholds established by our regulators as part of their implementation of Basel III, but that capital may not be available when it is needed and could be dilutive to our existing shareholders, which could adversely affect our financial condition and results of operations.

In July 2013, the Federal Reserve, FDIC and Office of the Comptroller of the Currency approved final rules that establish an integrated regulatory capital framework that addresses perceived shortcomings in certain capital requirements. The rules implement in the United States the Basel III regulatory capital reforms from the Basel Committee on Banking Supervision and certain changes required by the Dodd-Frank Act.

The major provisions of the rule applicable to the Company are:

- The rule implemented higher minimum capital requirements, including a new common equity Tier1 capital requirement, and established criteria that instruments must meet in order to be considered Common Equity Tier 1 capital, additional Tier 1 capital, or Tier 2 capital. The minimum capital to risk-weighted assets (“RWA”) requirements under the rule are a common equity Tier 1 capital ratio of 4.5% and a Tier 1 capital ratio of 6.0%, which is an increase from 4.0%, and a total capital ratio that remains at 8.0%. The minimum leverage ratio (Tier 1 capital to total assets) is 4.0%. The rule maintains the general structure of the current prompt corrective action, or PCA, framework while incorporating these increased minimum requirements.
- The rule implemented changes to the definition of capital, including stricter eligibility criteria for regulatory capital instruments that disallow the inclusion of instruments such as trust preferred securities in Tier 1 capital going forward, and new constraints on the inclusion of minority interests, mortgage-servicing assets (“MSAs”), deferred tax assets (“DTAs”), and certain investments in the capital of unconsolidated financial institutions.
- Under the rule, in order to avoid limitations on capital distributions, including dividend payments and certain discretionary bonus payments to executive officers, a banking organization must hold a capital conservation buffer composed of common equity Tier 1 capital above its minimum risk-based capital requirements. The buffer is measured relative to RWA. A three-year phase-in of the capital conservation buffer requirements began on January 1, 2016 and was completed on January 1, 2019. A banking organization with a buffer greater than 2.5% is not subject to limits on capital distributions or discretionary bonus payments; however, a banking organization with a buffer of less than 2.5% is subject to increasingly stringent limitations as the buffer approaches zero. The rule also prohibits a banking organization from making distributions or discretionary bonus payments during any quarter if its eligible retained income is negative in that quarter and its capital conservation buffer ratio was less than 2.5% at the beginning of the quarter. Now that the rule is fully phased in, the minimum capital requirements plus the capital conservation buffer exceed the PCA well-capitalized thresholds.
- The rule also increased the risk weights for past-due loans, certain commercial real estate loans, and some equity exposures, and made selected other changes in risk weights and credit conversion factors.

Compliance by LOB and the Bank with these capital requirements affects their respective operations by increasing the amount of capital required to conduct operations. In order to support the operations at the Bank, we may need to raise capital in the future. Our ability to raise capital will depend in part on conditions in the capital markets at that time, which are outside our control. Accordingly, we may be unable to raise capital on terms acceptable to us if at all. If we cannot raise capital when needed, our ability to operate or further expand our operations could be materially impaired. In addition, if we decide to raise equity capital under such conditions, the interests of our shareholders could be diluted.

Our deposit operations are subject to extensive regulation, and we expect additional regulatory requirements to be implemented in the future.

We are subject to significant anti-money laundering, “know your customer” and other regulations under applicable law, including the Bank Secrecy Act and the USA PATRIOT Act, and we could become subject in the future to additional regulatory requirements beyond those that are currently adopted, proposed or contemplated. We expect that federal and state bank regulators will increase their oversight, inspection and investigatory role over our deposit operations and the financial services industry generally. Furthermore, we intend to increase our deposit product offerings and grow our customer deposit portfolio in the future and, as a result, we are, and will continue to be, subject to heightened compliance and operating costs that could adversely affect our business, results of operations and financial condition. In addition, legal and regulatory proceedings and other contingencies will arise from time to time that may have an adverse effect on our business practices and results of operations.

The FDIC Deposit Insurance assessments that we are required to pay may continue to materially increase in the future, which would have an adverse effect on our earnings.

As a member institution of the FDIC, our Bank is assessed a quarterly deposit insurance premium. During 2009 to 2012, the large number of bank failures across the nation significantly depleted the deposit insurance fund, or DIF, and reduced the ratio of reserves to insured deposits. On October 19, 2010, the FDIC adopted a DIF Restoration Plan, which requires the DIF to attain a 1.35% reserve ratio by September 30, 2020. The Dodd-Frank Act directs the FDIC to “offset the effect” of the increased reserve ratio for insured depository institutions with total consolidated assets of less than $10 billion. In addition, the FDIC modified the method by which assessments are determined and, effective April 1, 2011, adjusted assessment rates, which currently range from 2.5 to 45 basis points (annualized), subject to adjustments for unsecured debt and, in the case of small institutions outside the lowest risk category and certain large and highly complex institutions, brokered deposits. As a result, we may be required to pay significantly higher premiums or additional special assessments that could adversely affect our business, results of operations and financial condition. Increased FDIC assessment premiums, due to our risk classification, emergency assessments, or implementation of the modified DIF reserve ratio, could have a material adverse effect on our business, results of operations and financial condition.

Risks Related to our Common Stock

The low trading volume in our common stock may adversely affect your ability to resell shares at prices that you find attractive or at all.

Our common stock is listed for quotation on the NASDAQ Global Select Market under the ticker symbol “LOB”. The average daily trading volume for our common stock is less than that of larger financial institutions. Due to its relatively low trading volume, sales of our common stock may place significant downward pressure on the market price of our common stock. Furthermore, it may be difficult for holders to resell their shares at prices they find attractive, or at all.

Securities analysts may not initiate or continue coverage on our common stock.

The trading market for our common stock depends in part on the research and reports that securities analysts publish about us and our business. We do not have any control over these securities analysts, and they may not cover our common stock. If securities analysts do not cover our common stock, the lack of research coverage may adversely affect its market price. If we are covered by securities analysts, and our common stock is the subject of an unfavorable report, the price of our common stock may decline. If one or more of these analysts cease to cover us or fail to publish regular reports on us, we could lose visibility in the financial markets, which could cause the price or trading volume

of our common stock to decline.

We are incurring increased costs and obligations as a result of being a public company.

As a relatively new public company, we are required to comply with certain additional corporate governance and financial reporting practices and policies required of a publicly traded company. As a result, we have and will continue to incur significant legal, accounting and other expenses that we were not required to incur as a privately held company, due to compliance requirements of the Exchange Act, Sarbanes-Oxley, the Dodd-Frank Act, the listing requirements of NASDAQ, and other applicable securities rules and regulations. The Exchange Act requires, among other things, that we file annual, quarterly, and current reports with respect to our business and operating results with the SEC. We are also required to ensure that we have the ability to prepare financial statements that are fully compliant with all SEC reporting requirements on a timely basis. Compliance with these rules and regulations will increase our legal and financial compliance costs, and might make some activities more difficult, time-consuming or costly and increase demand on our systems and resources.

Future sales of shares of our common stock by existing shareholders could depress the market price of our common stock.

LOB had 40,155,950 shares of common stock outstanding at January 31, 2019. In addition, as of January 31, 2019, there were outstanding options to purchase 2,655,815 shares of our common stock that, if exercised, will result in these additional shares becoming available for sale. Also, as of January 31, 2019, there were 386,771 outstanding restricted stock units that vest over time and 2,709,202 outstanding restricted stock units that vest based on revenue and stock price performance criteria, that when vested will result in additional shares becoming available for sale. A large portion of these shares, options and restricted stock units are held by a small number of persons. Sales by these shareholders or option and restricted stock unit holders of a substantial number of shares could significantly reduce the market price of our common stock.

Our ability to pay cash dividends on our securities is limited and we may be unable to pay future dividends.

We may not declare or pay dividends on our securities, including our common stock, in the future. Any future determination relating to dividend policy will be made at the discretion of our board of directors and will depend on a number of factors, including our future earnings, capital requirements, financial condition, future prospects, regulatory restrictions, and other factors that our board of directors may deem relevant. The holders of our capital stock are entitled to receive dividends when, and if, declared by our board of directors out of funds legally available for that purpose. As part of our consideration to pay cash dividends, we intend to retain adequate funds from future earnings to support the development and growth of our business. In addition, our ability to pay dividends is restricted by federal policies and regulations. It is the current policy of the Federal Reserve that bank holding companies should pay cash dividends on capital stock only out of net income available over the past year and only if prospective earnings retention is consistent with the organization’s expected future needs and financial condition. Further, our principal source of funds to pay dividends is cash dividends that we receive from the Bank, which, in turn, will be highly dependent upon the Bank’s historical and projected results of operations, liquidity, cash flows and financial condition, as well as various legal and regulatory prohibitions and other restrictions on the ability of the Bank to pay dividends, extend credit or otherwise transfer funds to LOB.

Additional issuances of common stock or securities convertible into common stock may dilute holders of our common stock.

LOB may, in the future, determine that it is advisable, or LOB may encounter circumstances where it is determined that it is necessary, to issue additional shares of common stock, securities convertible into, exchangeable for or that represent an interest in common stock, or common stock-equivalent securities to fund strategic initiatives or other business needs or to build additional capital. Our board of directors is authorized to cause us to issue additional shares

of common stock from time to time for adequate consideration without any additional action on the part of our shareholders. The market price of our common stock could decline as a result of other offerings, as well as other sales of a large block of common stock or the perception that such sales could occur.

LOB is subject to extensive regulation, and ownership of its common stock may have regulatory implications for holders thereof.

LOB is subject to extensive federal and state banking laws, including the Bank Holding Company Act of 1956, as amended, or BHCA, and federal and state banking regulations, that impact the rights and obligations of owners of its common stock, including, for example, its ability to declare and pay dividends on its common stock.

Shares of LOB's common stock are voting securities for purposes of the BHCA and any bank holding company or foreign bank that is subject to the BHCA may need approval to acquire or retain more than 5% of the then outstanding shares of LOB's common stock, and any holder (or group of holders deemed to be acting in concert) may need regulatory approval to acquire or retain 10% or more of the shares of LOB's common stock. Furthermore, the BHCA generally requires regulatory approval before any individual or company may acquire 25% or more of any class of LOB's common stock, and such regulatory approval may be required under certain circumstances if a person, company or group acting in concert acquires 10% or more, but less than 25% of LOB's common stock. Under certain limited circumstances, a holder or group of holders acting in concert may exceed the 25% percent threshold and not be deemed to control us until they own 33% percent or more of our total equity. The amount of total equity owned by a holder or group of holders acting in concert is calculated by aggregating all shares held by the holder or group, whether as a combination of voting or non-voting shares or through other positions treated as equity for regulatory or accounting purposes and meeting certain other conditions. Holders of LOB common stock should consult their own counsel with regard to regulatory implications.

Holders should not expect us to redeem or repurchase outstanding shares of LOB common stock.

LOB's common stock is a perpetual equity security. This means that it has no maturity or mandatory redemption date and will not be redeemable at the option of the holders. Any decision LOB may make at any time to propose the repurchase or redemption of shares of its common stock will depend upon, among other things, our evaluation of the Company's capital position, the composition of our shareholders' equity, general market conditions at that time and other factors we deem relevant. LOB's ability to redeem shares of its common stock is subject to regulatory restrictions and limitations, including those of the Federal Reserve Board.

Offerings of debt, which would rank senior to LOB's common stock upon liquidation, may adversely affect the market price of LOB common stock.

The Company may attempt to increase its capital resources or, if regulatory capital ratios fall below the required minimums, The Company could be forced to raise additional capital by making additional offerings of debt or equity securities, senior or subordinated notes, preferred stock and common stock. Upon liquidation, holders of the Company's debt securities and lenders with respect to other borrowings will receive distributions of available assets prior to the holders of LOB common stock.

Anti-takeover provisions could adversely affect LOB shareholders.

In some cases, shareholders would receive a premium for their shares if LOB were acquired by another company. However, state and federal law and LOB's articles of incorporation and bylaws make it difficult for anyone to acquire the Company without approval of the LOB board of directors. For example, LOB's articles of incorporation require a supermajority vote of two-thirds of our outstanding common stock in order to effect a sale or merger of the Company in certain circumstances. Consequently, a takeover attempt may prove difficult, and shareholders may not realize the highest possible price for their securities.

Shares of LOB common stock are not insured deposits and may lose value.

Shares of LOB common stock are not savings accounts, deposits or other obligations of any depository institution and are not insured or guaranteed by the FDIC or any other governmental agency or instrumentality, any other deposit insurance fund or by any other public or private entity. An investment in our common stock is inherently risky for the reasons described in this "Risk Factors" section. As a result, if you acquire shares of our common stock, you may lose some or all of your investment.

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Item 1B. UNRESOLVED STAFF COMMENTS
There were no unresolved comments received from the SEC regarding LOB's periodic or current reports.

Item 2.PROPERTIES

The following table sets forth the location of the Company's main offices, as well as additional administrative offices and certain information relating to the facilities.

Office	Address	Year Opened	Approximate Square Footage	Owned or Leased
Main Offices	1741 Tiburon Dr	2013	36,000	Owned
	1757 Tiburon Dr	2015	55,000	
Satellite Wilmington Office	2605 Irongate Dr	2016	21,264	Leased
Atlanta, GA Office	3060 Peachtree Rd Ste. 1220	2010	4,455	Leased
Santa Rosa, CA Office	100 B Street Ste. 100	2015	2,386	Leased
Roseville, CA Office	1223 Pleasant Grove Blvd Ste. 120	2016	1,186	Leased
Wilmington Flight Operations	1890 Trask Drive	2017	25,500	Owned
Washington, DC Office	2099 Pennsylvania Ave, NW	2017	3,698	Leased
New York, NY Office	212 West 91st St, Apt 635	2018	400	Leased

The Company believes that its properties are maintained in good operating condition and are suitable and adequate for its operational needs.

Item 3.LEGAL PROCEEDINGS
In the ordinary course of operations, the Company is at times involved in legal proceedings. In the opinion of management, as of December 31, 2018, there are no material pending legal proceedings to which LOB, or any of its subsidiaries, is a party or of which any of their property is the subject.

Item 4.MINE SAFETY DISCLOSURES
Not applicable.

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PART II

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

Market Information

The Company's voting common stock is traded on the NASDAQ Global Select Market under the symbol “LOB.” Quotations of the sales volume and the closing sales prices of the voting common stock of the Company are listed daily in the NASDAQ Global Select Market’s listings. As of December 31, 2018, there were 40,155,792 shares outstanding (comprised of 35,512,262 voting common shares and 4,643,530 non-voting common shares) and 390 holders of record (comprised of 385 holders of record for voting common shares and 5 holders of record for non-voting common shares) for the Company's common stock. The Company's non-voting common stock is not listed for trading on any exchange.

Dividend Policy

The timing and amount of cash dividends paid depends on the Company’s earnings, capital requirements, financial condition and other relevant factors. Although the Company has paid quarterly cash dividends to its stockholders, stockholders are not entitled to receive dividends. Downturns in domestic and global economies and other factors could cause the Company’s board of directors to consider, among other things, the elimination of or reduction in the amount and/or frequency of cash dividends paid on the Company’s common stock. See “Supervision and Regulation” under Item 1 of this Report for more information on restrictions on the Company’s ability to declare and pay dividends. The Company can offer no assurance that the board of directors will continue to declare or pay cash dividends in any future period.

Recent Sales of Unregistered Securities

None.

Securities Authorized for Issuance under Equity Compensation Plans

See Item 12 of this report for disclosure regarding securities authorized for issuance and equity compensation plans required by Item 201(d) of Regulation S-K.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Stock Performance Graph

The stock performance graph required by Item 201(e) of Regulation S-K is incorporated into this Report by reference from the Company’s annual report to shareholders for the year ended December 31, 2018, which will be posted on the Company’s website subsequent to the date of this Report. The stock performance graph shall not be deemed to be “filed” for purposes of Section 18 of the Exchange Act, nor shall it be deemed to be “soliciting material” subject to Regulation 14A or incorporated by reference in any filing under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

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Item 6. SELECTED FINANCIAL DATA

The tables below set forth selected consolidated financial data as of the dates or for the periods indicated. This data should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 and the Consolidated Financial Statements and Notes in Item 8 of this Report.

(dollars in thousands, except per share data)	As of and for the Year Ended December 31,				
	2018	2017	2016	2015	2014
Income Statement Data					
Net interest income	$108,043	$78,034	$42,649	$25,589	$14,713
Provision for loan and lease loss	13,058	9,536	12,536	3,806	2,793
Noninterest income	103,765	172,921	93,539	84,328	60,042
Noninterest expense	152,704	143,165	106,445	71,715	54,526
Income, before income taxes	46,046	98,254	17,207	34,396	17,436
Income tax (benefit) expense	(5,402)	(2,245)	3,443	13,795	7,388
Net income	51,448	100,499	13,764	20,601	10,048
Net income attributable to noncontrolling interest	—	—	9	24	—
Net income to common shareholders	51,448	100,499	13,773	20,625	10,048
Net income (net of tax effect) (1)	51,448	100,499	13,773	20,625	10,723
Period End Balances					
Assets	3,670,449	2,758,474	1,755,261	1,052,622	673,315
Loans held for sale	687,393	680,454	394,278	480,619	295,180
Loans and leases held for investment	1,843,419	1,343,973	907,566	279,969	203,936
Allowance for loan and lease losses	32,434	24,190	18,209	7,415	4,407
Deposits	3,149,583	2,260,263	1,485,076	804,788	522,080
Borrowings	1,457	26,564	27,843	28,375	47,949
Shareholders' equity	493,560	436,933	222,847	199,488	91,814
Per Common Share Data					
Net income per share - basic	1.28	2.75	0.40	0.66	0.42
Net income per share - diluted	1.24	2.65	0.39	0.65	0.41
Net income per share (net of tax effect) - basic (1)	1.28	2.75	0.40	0.66	0.45
Net income per share (net of tax effect) - diluted (1)	1.24	2.65	0.39	0.65	0.44
Operating net income per share (Non-GAAP) - basic (2)	1.36	1.29	0.59	0.54	0.57
Operating net income per share (Non-GAAP) - diluted (2)	1.32	1.25	0.57	0.53	0.56
Dividends declared	0.12	0.10	0.07	0.10	2.18
Book value	12.29	10.95	6.51	5.84	3.21
Tangible book value (2)	12.29	10.85	6.51	5.84	3.20

	As of and for the Year Ended December 31,				
	2018	2017	2016	2015	2014
Performance Ratios					
Return on average assets	1.52 %	4.55 %	0.96 %	2.26 %	1.77 %
Return on average equity	11.00	33.80	6.55	14.52	14.11
Return on average assets (net of tax effect) (1)	1.52	4.55	0.96	2.26	1.89
Return on average equity (net of tax effect) (1)	11.00	33.80	6.55	14.52	15.05
Net interest margin	3.62	3.92	3.28	3.26	3.04
Efficiency ratio (2)	72.10	57.05	78.16	65.25	72.87
Noninterest income to total revenue	48.99	68.91	68.68	76.72	80.34
Average equity to average assets	13.83	13.46	14.63	15.53	12.56
Dividend payout ratio (inclusive of tax distributions)	9.38	3.64	17.50	15.15	447.33
Dividend payout ratio (net of tax effect) (1)	9.38	3.64	17.50	15.15	419.17
Selected Loan Metrics					
Loans and leases originated	$1,765,680	$1,934,238	$1,537,010	$1,158,640	$848,090
Guaranteed loans sold	945,178	787,926	761,933	640,886	433,912
Average net gain on sale of guaranteed loans	80.91	100.38	98.86	105.14	115.18
Held for sale guaranteed loans (note amount) (3)	914,354	1,087,636	754,834	497,875	326,723
Outstanding balance of sold loans serviced:					
Guaranteed	3,045,460	2,680,641	2,278,618	1,779,989	1,302,828
Unguaranteed	174,066	169,355	145,099	178,036	165,919
Total	3,219,526	2,849,996	2,423,717	1,958,025	1,468,747
Asset Quality Ratios					
Allowance for loan and lease losses to loans and leases held for investment	1.76 %	1.80 %	2.01 %	2.65 %	2.16 %
Net charge-offs	$4,814	$3,555	$1,742	$798	$1,109
Net charge-offs to average loans and leases held for investment	0.31 %	0.32 %	0.29 %	0.37 %	1.21 %
Nonperforming loans	$57,690	$23,480	$23,781	$12,367	$18,692
Foreclosed assets	1,094	1,281	1,648	2,666	1,084
Nonperforming loans (unguaranteed exposure)	14,488	3,610	4,784	2,037	3,137
Foreclosed assets (unguaranteed exposure)	148	90	246	373	371
Nonperforming loans not guaranteed by the U.S. government and foreclosed assets	14,636	3,700	5,030	2,410	3,508
	0.40 %	0.13 %	0.29 %	0.23 %	0.52 %

Nonperforming loans not guaranteed by the U.S. government and foreclosed assets to total assets										
Capital and Liquidity Ratios										
Common equity tier 1 capital (to risk-weighted assets)	17.10	%	17.81	%	15.31	%	23.22	%	N/A	
Total capital (to risk-weighted assets)	18.28	%	18.91		16.56		24.12		19.63	%
Tier 1 risk-based capital (to risk-weighted assets)	17.10	%	17.81		15.31		23.22		17.41	
Tier 1 leverage capital (to average assets)	13.40	%	15.50		12.00		18.36		13.38	

(1) Net income (net of tax effect), earnings per share (net of tax effect) on a basic and diluted basis, return on average assets (net of tax effect), and return on average equity (net of tax effect) for each year shown was determined by calculating a provision for income taxes using an assumed annual effective income tax rate of 38.5% for the year ended December 31, 2014, and adjusting our historical net income for the period presented to give effect to the pro forma provision for federal and state income taxes for such year. For the year ended December 31, 2014, the Company also excluded the initial deferred tax liability recorded as a result of the change in tax status on August 3, 2014 due to the conversion from an S corporation to a C corporation.

(2) See "Non-GAAP Measures" in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of this Report for more information and a reconciliation to the most closely related GAAP measure.

(3) Includes the entire note amount, including undisbursed funds for multi-advance loans.

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

Overview

The following presents management's discussion and analysis of the more significant factors that affected the Company's financial condition as of December 31, 2018 and 2017 and results of operations for each of the years in the three-year period ended December 31, 2018. This discussion should be read in conjunction with the financial statements and related notes included elsewhere in this Annual Report on Form 10-K. Results of operations for the periods included in this review are not necessarily indicative of results to be obtained during any future period.

Dollar amounts in tables are stated in thousands, except for per share amounts.

Nature of Operations

Live Oak Bancshares, Inc. is a bank holding company headquartered in Wilmington, North Carolina, incorporated under the laws of North Carolina in December 2008. The Company conducts business operations primarily through its commercial bank subsidiary, Live Oak Banking Company. The Bank was incorporated in February 2008 as a North Carolina-chartered commercial bank. The Bank specializes in providing lending to small businesses nationwide in targeted industries and deposit-related services to small businesses, consumers and other customers nationwide. The Bank identifies and seeks to grow within selected industry sectors, or verticals, by leveraging expertise within those industries. A significant portion of the loans originated by the Bank are guaranteed by the Small Business Administration under the 7(a) program and to a lesser extent by the U.S. Department of Agriculture Rural Energy for America Program ("REAP"), Business & Industry ("B&I") and Water & Waste Disposal ("WEP") loan programs.

During the fourth quarter of 2018, the Company began implementing a strategic decision to retain a larger portion of its loans eligible for sale on our balance sheet. Management believes this decision will reduce future earnings volatility and maximize long-term profitability. This strategic change had immediate impacts through the reclassification of $80.3 million in guaranteed loans from held-for-sale to held-for-investment status. Other effects of this change began to be reflected in the financial statements in the fourth quarter of 2018 with significantly fewer loans sold during the quarter and the initial impacts of increased net interest income.

In 2018, the Bank formed Live Oak Private Wealth, LLC, a registered investment advisor that provides high-net-worth individuals and families with strategic wealth and investment management services. In 2017, the Bank entered into a joint venture, Apiture LLC ("Apiture"), with First Data Corporation for the purpose of creating next generation technology for financial institutions. In August 2018, the Company exited the title insurance business by financing the sale of its entire ownership interest in Reltco, Inc. and National Assurance Title, Inc. for $3.0 million. This divestiture was driven by lower expectations of future profitability for this business. The title insurance business was acquired in 2017. In addition to the Bank, the Company owns Live Oak Clean Energy Financing LLC, formed in November 2016, for the purpose of providing financing to entities for renewable energy applications; Live Oak Ventures, Inc. (formerly known as "Canapi, Inc."), formed in August 2016 for the purpose of investing in businesses that align with the Company's strategic initiative to be a leader in financial technology; Live Oak Grove, LLC, formed in February 2015 for the purpose of providing Company employees and business visitors an on-site restaurant location; Government Loan Solutions, Inc. ("GLS"), a management and technology consulting firm that specializes in the settlement, accounting, and securitization processes for government guaranteed loans, including loans originated under the SBA 7(a) loan program and USDA-guaranteed loans; and 504 Fund Advisors, LLC ("504FA"), formed to serve as the investment advisor to The 504 Fund, a closed-end mutual fund organized to invest in SBA section 504 loans.

The Company generates revenue primarily from net interest income and the origination and sale of government guaranteed loans. During 2016, the Company also began originating and selling USDA-guaranteed REAP and B&I loans and in 2018 it added USDA-guaranteed WEP loans. Income from the retention of loans is comprised of interest income. Income from the sale of loans is comprised of loan servicing revenue and revaluation of related servicing assets along with net gains on sales of loans. Offsetting these revenues are the cost of funding sources, provision for loan and lease losses, any costs related to foreclosed assets and other operating costs such as salaries and employee benefits, travel, professional services, advertising and marketing and tax expense.

Executive Summary

Following is a summary of the Company's financial highlights and events for 2018:

- Loans and leases held for investment increased by $499.4 million, or 37.2%, to $1.84 billion at the end of 2018 as a result of robust 2018 loan originations combined with the reclassification of guaranteed loans from held-for-sale status, as a part of the above referenced strategic decision to retain higher levels of loans.
- Net interest income and loan servicing revenue increased by $34.5 million, or 33.7%, to $137.2 million in 2018.
- Core revenues consisting of net interest income, servicing revenue and gains on sale of loans increased to $212.3 million, a 17.2% increase over 2017.
- $20.4 million in investment tax credits were generated by the Company's investment of $70.2 million in renewable energy assets which are leased under operating lease arrangements.
- Cash and cash equivalents and investment securities increased $308.7 million, or 79.4%, to $697.3 million at December 31, 2018 reflecting the Company’s successful execution of a strategic goal to enhance liquidity and contingent funding sources.
- Guaranteed loan sales increased to $945.2 million in 2018, a 20.0% increase over 2017, while net gains on sales of loans were lower by $3.4 million, or 4.4%, principally driven by market conditions in 2018 that reduced the average gain per million from $100.4 thousand in 2017 to $80.9 thousand in 2018. This decline in premium values during 2018 influenced the Company’s strategic decision mentioned above to retain higher levels of loans.
- Loan and lease originations decreased to $1.77 billion for 2018, an 8.7% decrease over 2017. Lower origination volume was primarily the result of increased lending competition in existing verticals along with the impact of certain changes in SBA-related procedures.
- Total nonperforming unguaranteed loans and leases as a percentage of total loans and leases held for investment increased from 0.27% at the end of 2017 to 0.79% at the end of 2018.
- Net charge-offs as a percentage of average held for investment loans and leases, for the years ended December 31, 2018 and 2017, were 0.31% and 0.32%, respectively.
- Total deposits rose by 39.3% to $3.15 billion at the end of 2018 following successful deposit gathering campaigns.
- Reported net income decreased by 48.8% from 2017 to $51.4 million. Non-GAAP net income, which excludes non-routine income and expenses, improved $7.4 million over 2017, or 15.6%, to $54.6 million. See "Non-GAAP Financial Measures" below for more information about Non-GAAP net income. The reconciliation of non-GAAP measures is presented at the conclusion of this Item 7.

Business Outlook

Below is a discussion of management’s current expectations regarding company performance over the near-term based on market conditions, the regulatory environment and business strategies as of the time the Company filed this Report. Actual outcomes and results may differ materially from what is expressed or forecasted in these forward-looking statements. See “Important Note Regarding Forward-Looking Statements” in this Report for more information on forward-looking statements.

The Company's results for 2018 demonstrated strong underlying financial performance and solid growth momentum. Management continues to focus on building recurring revenue streams, promoting change within the financial technology industry, and building out selected existing verticals while adding new verticals to the Company's business model. During the fourth quarter of 2018, we began implementing a strategic decision to retain a larger portion of our loans eligible for sale on our balance sheet. We believe this decision will reduce future earnings volatility and maximize long-term profitability. Notwithstanding this decision, we anticipate that gains on the sale of loans will comprise a significant component of our revenue in 2019. Management anticipates that the Company's held-for-sale and held-for-investment loan portfolios will continue to grow as a result of origination volumes and higher levels of loan retention intended to promote long-term recurring revenue and profitability, including the continued pursuit of potential opportunities in conventional lending outside of SBA or other government guarantee programs.

Non-GAAP Financial Measures

Statements included in this management's discussion and analysis include non-GAAP financial measures and should be read along with the accompanying tables which provide a reconciliation of non-GAAP financial measures to GAAP financial measures. The reconciliation of non-GAAP measures is presented at the conclusion of this Item 7 section.

Management believes that non-GAAP financial measures provide additional useful information that allows readers to evaluate the ongoing performance of the Company without regard to certain transactional activities. Non-GAAP financial measures should not be considered as an alternative to any measure of performance or financial condition as reported under GAAP, and investors should consider the Company's performance and financial condition as reported under GAAP and all other relevant information when assessing the performance or financial condition of the Company. Non-GAAP financial measures have limitations as analytical tools, and investors should not consider them in isolation or as a substitute for analysis of the Company's results or financial condition as reported under GAAP.

Results of Operations

Years ended December 31, 2018 vs. 2017

The Company reported net income available to common shareholders totaling $51.4 million, or $1.24 per diluted share, for 2018 compared to $100.5 million, or $2.65 per diluted share, for 2017.

This decrease in net income was primarily attributable to the following items:

- The decline in noninterest income due to the $68.0 million one-time pretax gain arising from the Company's equity method investment in Apiture during the fourth quarter of 2017;
- Net negative loan servicing revaluation increased by $5.6 million, or 42.5%, due to the increased amortization speed of the serviced portfolio which was largely impacted by the rising rate environment and deterioration in premium markets for government guaranteed loans compared to 2017; and
- Lower net gains on sales of loans of $3.4 million, or 4.4%, principally driven by current year market conditions that reduced the average gain per million from $100.4 thousand in 2017 to $80.9 thousand in 2018. This decline in premium values during 2018 influenced the Company’s strategic shift during the fourth quarter to hold substantially more production on the balance sheet.

Other key factors partially offsetting the year-over-year decline in net income were composed of the following:

- Increased net interest income of $30.0 million, or 38.5%, predominately driven by significant growth in the combined held for sale and held for investment loan and lease portfolios along with higher investment security holdings, reflecting the Company’s ongoing initiative to grow recurring revenue sources;

- Increased loan servicing revenue of $4.5 million, or 18.4%, as a result of continued growth in the servicing portfolio due to ongoing loan sales;
- Increased lease income of $6.1 million, or 329.2%, due to business diversification and increased lease originations; and

- Decreased costs to retain and operate the title insurance business, net of income earned, that was exited in the third quarter of 2018.

Years ended December 31, 2017 vs. 2016

The Company reported net income available to common shareholders totaling $100.5 million, or $2.65 per diluted share, for 2017 compared to $13.8 million, or $0.39 per diluted share, for 2016. This increase in net income was primarily attributable to the following items:

- A $68.0 million one-time pretax gain arising from the Company's fourth quarter 2017 equity method investment in Apiture;
- Increased net interest income of $35.4 million, or 83%, predominately driven by significant growth in the loans and leases held for sale and held for investment portfolios combined with a significantly higher net interest margin; and
- A decrease in income tax expense of $5.7 million, or 165.2%, due to the generation of investment tax credits by the Company's renewable energy leasing business combined with the positive impact of the enactment of the Tax Cuts and Jobs Act on December 22, 2017, as further discussed below.

Other key factors contributing to the year-over-year increase in net income were composed of the following:

- Decreased provision for loan and lease losses of $3.0 million principally driven by the one-time transfer of $318.8 million in unguaranteed loans from held for sale to held for investment classification during the second quarter of 2016;
- Increased loan servicing revenue of $3.2 million, or 14.9%, as a result of continued growth in the servicing portfolio due to ongoing loan sales; and
- Increased net gains on sales of loans of $3.3 million, or 4.3%, due to higher sale volumes combined with an increase in the average net gain per loan sold.

Partially offsetting the above factors was an increase in noninterest expense of $36.7 million, or 34.5%, largely attributable to the effects of continued investments to support growing levels of business and business diversification.

Net Interest Income and Margin

Net interest income represents the difference between the revenue that the Company earns on interest-earning assets and the cost of interest-bearing liabilities. The Company’s net interest income depends upon the volume of interest-earning assets and interest-bearing liabilities and the interest rates that the Company earns or pays on them, respectively. Net interest income is affected by changes in the amount and mix of interest-earning assets and interest-bearing liabilities, referred to as “volume changes.” It is also affected by changes in yields earned on interest-earning assets and rates paid on interest-bearing deposits and other borrowed funds, referred to as “rate changes.” As a bank without a branch network, the Bank gathers deposits over the Internet and in the community in which it is headquartered. Due to the nature of a branchless bank and the relatively low overhead required for deposit gathering, the rates the Bank offers are generally above the industry average.

Years ended December 31, 2018 vs. 2017

For 2018, net interest income increased $30.0 million, or 38.5%, to $108.0 million compared to $78.0 million in 2017. This increase was principally due to the significant growth in average interest earning assets and, to a lesser extent, by higher yields on these assets which outpaced the growth and change in the cost of interest-bearing liabilities. Average interest earning assets rose by $992.6 million, or 49.9%, to $2.98 billion for 2018 compared to $1.99 billion for 2017, while the yield on average interest earning assets rose by 26 basis points to 5.46% for 2018 versus 5.20% for 2017. A substantial portion of the Company's loan portfolio are variable rate loans that adjust regularly in accordance with changes in designated benchmark indices. The cost of funds on interest bearing liabilities for 2018 increased 54 basis points to 1.92%, and the average balance in interest bearing liabilities increased by $1.00 billion, or 54.3% during the same period. As indicated in the rate/volume table below, the increase in interest bearing liabilities and corresponding cost of funds was outpaced by the positive effects of the increased volume of interest earning assets along with higher yields, resulting in increased interest income of $59.2 million versus increased interest expense of $29.2 million for 2018. For 2018 compared to 2017, net interest margin decreased from 3.92% to 3.62% due principally to the narrowing of the interest rate spread during the year. This compression of the spread was largely the result of strategic liquidity initiatives which were accomplished during 2018 which led to much higher levels of investment securities and cash balances held with other banks which carry much lower yields.

Years ended December 31, 2017 vs. 2016

For 2017, net interest income increased $35.4 million, or 83.0%, to $78.0 million compared to $42.6 million in 2016. This increase was principally due to the significant growth in average interest earning assets and to a lesser extent by higher yields on these assets which outpaced the growth and change in the cost of interest bearing liabilities. Average interest earning assets rose by $686.6 million, or 52.7%, to $1.99 billion for 2017 compared to $1.30 billion for 2016, while the yield on average interest earning assets rose sharply by eighty basis points to 5.20% for 2017 versus 4.40% for 2016. A substantial portion of the Company's loan portfolio are variable rate loans that adjust regularly in accordance with changes in designated benchmark indices. The cost of funds on interest bearing liabilities for 2017 increased fourteen basis points to 1.38%, and the average balance in interest bearing liabilities increased by $658.5 million, or 55.6% during the same period. As indicated in the rate/volume table below, the increase in interest bearing liabilities and corresponding cost of funds was outpaced by the positive effects of the increased volume of interest earning assets along with much higher yields, resulting in increased interest income of $46.2 million versus increased interest expense of $10.8 million for 2017. The volume of interest bearing liabilities for 2017 was also mitigated somewhat by the August 2017 secondary public offering. For 2017 compared to 2016, net interest margin increased from 3.28% to 3.92% due to the aforementioned effects.

Average Balances and Yields. The following table presents information regarding average balances for assets and liabilities, the total dollar amounts of interest income and dividends from average interest-earning assets, the total dollar amount of interest expense on average interest-bearing liabilities, and the resulting average yields and costs. The yields and costs for the periods indicated are derived by dividing the income or expense by the average balances for assets or liabilities, respectively, for the periods presented. Loan fees are included in interest income on loans.

	2018			2017			2016		
	Average Balance	Interest	Average Yield/Rate	Average Balance	Interest	Average Yield/Rate	Average Balance	Interest	Average Yield/Rate
Interest earning assets:									
Interest earning balances in other banks	$373,104	$6,600	1.77 %	$232,398	$2,407	1.04 %	$222,704	$1,033	0.46 %
Investment securities	334,175	8,733	2.61	76,250	1,432	1.88	62,746	1,132	1.80
Loans held for sale	712,566	46,411	6.51	582,245	34,567	5.94	413,468	22,645	5.48
Loans and leases held for investment[1]	1,561,146	100,899	6.46	1,097,510	65,066	5.93	602,875	32,462	5.38
Total interest earning assets	2,980,991	162,643	5.46	1,988,403	103,472	5.20	1,301,793	57,272	4.40
Less: Allowance for loan and lease losses	(27,071)			(19,230)			(10,899)		
Non-interest earning assets	427,221			239,797			146,169		
Total assets	$3,381,141			$2,208,970			$1,437,063		
Interest bearing liabilities:									
Interest bearing checking	$32,792	$342	1.04 %	$39,213	$256	0.65 %	$20,410	$116	0.57 %
Savings	911,757	15,357	1.68	193,083	2,685	1.39	—	—	—
Money market accounts	131,495	1,452	1.10	413,648	4,060	0.98	423,035	3,197	0.76
Certificates of deposit	1,761,948	37,318	2.12	1,161,651	17,222	1.48	712,327	10,346	1.45
Total deposits	2,837,992	54,469	1.92	1,807,595	24,223	1.34	1,155,772	13,659	1.18
Other borrowings	4,869	131	2.69	34,968	1,215	3.47	28,250	964	3.41
	2,842,861	54,600	1.92	1,842,563	25,438	1.38	1,184,022	14,623	1.24

Total interest bearing liabilities									
Non-interest bearing deposits	50,580			40,831			21,665		
Non-interest bearing liabilities	20,132			28,248			21,046		
Shareholders' equity	467,568			297,328			210,311		
Noncontrolling interest	—			—			19		
Total liabilities and shareholders' equity	$3,381,141			$2,208,970			$1,437,063		
Net interest income and interest rate spread		$108,043	3.54 %		$78,034	3.82 %		$42,649	3.16 %
Net interest margin			3.62 %			3.92 %			3.28 %
Ratio of average interest-earning assets to average interest-bearing liabilities			104.86%			107.92%			109.95%

(1) Average loan balances include non-accruing loans.

Rate/Volume Analysis. The following table sets forth the effects of changing rates and volumes on net interest income. The rate column shows the effects attributable to changes in rate (changes in rate multiplied by current period volume). The volume column shows the effects attributable to changes in volume (changes in volume multiplied by prior period rate). The total column represents the sum of the prior columns. For purposes of this table, changes attributable to changes in both rate and volume that cannot be segregated have been allocated proportionally based on the changes due to rate and the changes due to volume.

	2018 vs. 2017 Increase (Decrease) Due to			2017 vs. 2016 Increase (Decrease) Due to		
	Rate	Volume	Total	Rate	Volume	Total
Interest income:						
Interest earning balances in other banks	$2,220	$1,973	$4,193	$1,301	$73	$1,374
Investment securities	1,509	5,792	7,301	51	249	300
Loans held for sale	3,731	8,113	11,844	2,290	9,632	11,922
Loans and leases held for investment	7,107	28,726	35,833	4,625	27,979	32,604
Total interest income	14,567	44,604	59,171	8,267	37,933	46,200
Interest expense:						
Interest bearing checking	140	(54)	86	25	115	140
Savings	1,623	11,049	12,672	—	2,685	2,685
Money market accounts	334	(2,942)	(2,608)	945	(82)	863
Certificates of deposit	9,289	10,807	20,096	282	6,594	6,876
Other borrowings	(156)	(928)	(1,084)	20	231	251
Total interest expense	11,230	17,932	29,162	1,272	9,543	10,815
Net interest income	$3,337	$26,672	$30,009	$6,995	$28,390	$35,385

Provision for Loan and Lease Losses. The provision for loan and lease losses represents the amount necessary to be charged against the current period's earnings to maintain the allowance for loan and lease losses at a level that is appropriate in relation to the estimated losses inherent in the loan and lease portfolio. A number of factors are considered in determining the required level of loan and lease loss reserves and the provision required to achieve the appropriate reserve level, including loan growth, credit risk rating trends, nonperforming loan levels, delinquencies, loan portfolio concentrations and economic and market trends.

Losses inherent in loan relationships are mitigated by the portion of the loan that is guaranteed by U.S. government loan programs. A typical SBA 7(a) loan carries a 75% guarantee while USDA guarantees range from 50% to 90% depending on loan size and type, which reduces the risk profile of these loans. The Company believes that its focus on compliance with regulations and guidance from U.S. government loan programs are key factors to managing this risk.

Years ended December 31, 2018 vs. 2017

For 2018, the provision for loan and lease losses was $13.1 million, an increase of $3.5 million, or 36.9%, compared to 2017. The increase in the provision for loan and lease losses was principally driven by additional reserves recorded to accommodate robust loan and lease growth combined with increases in classified loans in 2018.

Loans and leases held for investment as of December 31, 2018 increased by $499.4 million, or 37.2%, compared to December 31, 2017. This growth was fueled by strong loan origination volume of $1.77 billion for the year ended December 31, 2018.

Net charge-offs were $4.8 million, or 0.31% of average loans and leases held for investment, for 2018, compared to net charge-offs of $3.6 million, or 0.32% of average loans and leases held for investment, for 2017. Net charge-offs are a key element of historical experience in the Company's estimation of the allowance for loan and lease losses.

In addition, at December 31, 2018, nonperforming loans and leases not guaranteed by the SBA or USDA totaled $14.5 million, which was 0.79% of the held-for-investment loan and lease portfolio compared to $3.6 million, or 0.27%, of loans and leases held for investment at December 31, 2017.

Years ended December 31, 2017 vs. 2016

For 2017, the provision for loan and lease losses was $9.5 million, a decrease of $3.0 million, or 23.9%, compared to the same period in 2016. The decrease in the provision for loan and lease losses for 2017 was principally driven by the one-time transfer in the second quarter of 2016 of $318.8 million in unguaranteed loans and leases from being classified as held for sale to held for investment. This reclassification resulted in a $4.0 million increase in the provision for loan and lease losses during the second quarter of 2016. Partially offsetting the effects of the 2016 loan reclassification were additional reserves recorded to accommodate robust loan and lease growth in 2017.

Loans and leases held for investment as of December 31, 2017 increased by $436.4 million, or 48.1%, compared to December 31, 2016. This growth was fueled by strong loan origination volume of $1.93 billion for the year ended December 31, 2017.

Net charge-offs were $3.6 million, or 0.32% of average loans and leases held for investment, for 2017, compared to net charge-offs of $1.7 million, or 0.29% of average loans and leases held for investment, for 2016. Net charge-offs are a key element of historical experience in the Company's estimation of the allowance for loan and lease losses.

In addition, at December 31, 2017, nonperforming loans and leases not guaranteed by the SBA totaled $3.6 million, which was 0.27% of the held-for-investment loan and lease portfolio compared to $4.8 million, or 0.53%, of loans and leases held for investment at December 31, 2016.

Noninterest Income

Noninterest income is principally comprised of net gains from the sale of SBA and USDA-guaranteed loans along with servicing revenue and related revaluation. Revenue from the sale of loans depends upon volume and rates of underlying loans as well as cost and availability of funds in the secondary markets prevailing in the period between completed loan funding and closing of sale. In addition, the loan servicing revaluation is significantly impacted by changes in market rates and other underlying assumptions such as prepayment speeds and default rates. Other less common elements of noninterest income include nonrecurring gains and losses on investments.

The following table shows the components of noninterest income and the dollar and percentage changes for the periods presented.

	Years Ended December 31,			2017/2018 Increase (Decrease)		2016/2017 Increase (Decrease)	
	2018	2017	2016	Amount	Percent	Amount	Percent
Noninterest income							
Loan servicing revenue	$29,121	$24,588	$21,393	$4,533	18.44 %	$3,195	14.93 %
Loan servicing revaluation	(18,765)	(13,171)	(8,391)	(5,594)	(42.47)	(4,780)	(56.97)
Net gains on sales of loans	75,170	78,590	75,326	(3,420)	(4.35)	3,264	4.33
Lease income	7,966	1,856	—	6,110	329.20	1,856	100.00
Gain on contribution to equity method investment	—	68,000	—	(68,000)	(100.00)	68,000	100.00

Gain (loss) on sale of securities available-for-sale	—	—	1	—	—	(1)	(100.00)
Construction supervision fee income	2,277	1,776	2,667	501	28.21	(891)	(33.41)
Title insurance income	2,775	7,565	—	(4,790)	(63.32)	7,565	100.00
Other noninterest income	5,221	3,717	2,543	1,504	40.46	1,174	46.17
Total noninterest income	$103,765	$172,921	$93,539	$(69,156)	(39.99)%	$79,382	84.87 %

Years ended December 31, 2018 vs. 2017

For 2018, noninterest income decreased by $69.2 million, or 40.0%, compared to 2017. The decrease from the prior year was largely driven by the $68.0 million one-time pretax gain recognized during the fourth quarter of 2017 as a result of the equity method investment in Apiture. Other contributors to the net decrease in noninterest income were the $5.6 million increase to net negative loan servicing revaluation, a reduction in the net gains on sales of loans of $3.4 million, and a decline in title insurance income of $4.8 million resulting from the exit of the title insurance business in 2018. Partially offsetting the decrease in noninterest income were improved loan servicing revenue and improved lease income of $4.5 million and $6.1 million, respectively.

The tables below reflect loan and lease production, sales of guaranteed loans and the aggregate balance in guaranteed loans sold that are being serviced. These components are key drivers of the Company's noninterest income.

	Three months ended December 31,		Three months ended September 30,		Three months ended June 30,		Three months ended March 31,	
	2018	2017	2018	2017	2018	2017	2018	2017
Amount of loans and leases originated	$498,987	$483,422	$377,337	$395,682	$491,797	$586,471	$397,559	$468,663
Guaranteed portions of loans sold	104,646	211,654	298,073	163,843	295,216	203,714	247,243	208,715
Outstanding balance of guaranteed loans sold [1]	3,045,460	2,680,641	3,102,820	2,584,163	2,951,379	2,521,506	2,812,108	2,410,791

	Years ended December 31,				
	2018	2017	2016	2015	2014
Amount of loans and leases originated	$1,765,680	$1,934,238	$1,537,010	$1,158,640	$848,090
Guaranteed portions of loans sold	945,178	787,926	761,933	640,886	433,912
Outstanding balance of guaranteed loans sold [1]	3,045,460	2,680,641	2,278,618	1,779,989	1,302,828

(1) This represents the outstanding principal balance of guaranteed loans serviced, as of the last day of the applicable period, which have been sold into the secondary market.

Changes in various components of noninterest income are discussed in more detail below.

Loan Servicing Revenue: While portions of the loans that the Bank originates are sold and generate gain on sale revenue, servicing rights for all loans that the Bank originates, including loans sold, are retained by the Bank. In exchange for continuing to service loans that are sold, the Bank receives fee income represented in loan servicing revenue equivalent to 1.0% of the outstanding balance of SBA loans sold and 0.40% of the outstanding balance of USDA loans sold. In addition, the standard cost (adequate compensation) for servicing sold loans is approximately 0.40% of the balance of the loans sold, which is included in the loan servicing revaluation computations. Unrecognized servicing revenue above the standard cost to service is reflected in a servicing asset recorded on the balance sheet. Revenues associated with the servicing of loans are recognized over the expected life of the loan through the income statement, and the servicing asset is reduced as this revenue is recognized. For the year ended December 31, 2018, loan servicing revenue increased $4.5 million, or 18.4%, to $29.1 million as compared to the year ended December 31, 2017, as a result of an increase in the average outstanding balance of guaranteed loans sold. At

December 31, 2018, the outstanding balance of guaranteed loans sold in the secondary market was $3.05 billion compared to $2.68 billion at December 31, 2017.

Loan Servicing Revaluation: The Company revalues its serviced loan portfolio at least quarterly. The revaluation considers the amortization of the portfolio, current market conditions for loan sale premiums, and current prepayment speeds. For the years ended December 31, 2018 and 2017, there was a net negative loan servicing revaluation of $18.8 million and $13.2 million, respectively. The higher negative service revaluation amount for 2018 was principally driven by the increased amortization speed of the serviced portfolio which was largely impacted by the rising rate environment and deterioration in premium markets for government guaranteed loans.

In consideration of the sensitivity of servicing rights as discussed above and in Note 7 to the accompanying audited financial statements, the following table is provided as of December 31, 2018 reflecting the effect on fair value due to changes in yield curve rates.

Change in Yield Curve Assumption	Increase (Decrease) in Value
+300 basis point	$(5,420)
+200 basis point	(3,769)
+100 basis point	(1,969)
- 100 basis point	2,164

Net Gains on Sale of Loans: For the year ended December 31, 2018, net gains on sales of loans of $75.2 million, decreased $3.4 million, or 4.4%, compared to 2017. This decrease was primarily due to a lower average net gain per loan sold which was partially offset by a higher volume of guaranteed loans sold. For 2018, the volume of guaranteed loans sold increased $157.3 million, or 20.0%, from $787.9 million in 2017 to $945.2 million in 2018. The average net gain on sale for 2018 was lower at $80.9 thousand of revenue for each $1 million in loans sold, compared to $100.4 thousand of revenue for each $1 million sold for 2017. The decrease in average gains was influenced by the same deterioration in the premium markets discussed above.

Years ended December 31, 2017 vs. 2016

For 2017, noninterest income increased by $79.4 million, or 84.9%, compared to 2016. The increase from the prior year was largely driven by the $68.0 million one-time pretax gain recognized as a result of the fourth quarter 2017 equity method investment in Apiture, see Note 3. Unconsolidated Joint Venture for further discussion. Other contributors to the increase in noninterest income were higher year-over-year levels in the serviced loan portfolio and the volume of loans sold in the secondary market, which generated $3.2 million of increased servicing revenue and $3.3 million of increased net gains on sale of loans. Also driving higher levels of noninterest income were $7.6 million in title insurance revenue from the acquisition of a nationwide title insurance business in early 2017, $1.9 million of operating lease income from renewable energy assets and increased other noninterest income of $1.2 million. The increase in other noninterest income was primarily comprised of trust management income of $1.1 million. Partly offsetting the overall increase in noninterest income was a $4.8 million increase to net negative loan servicing revaluation.

Changes in various components of noninterest income are discussed in more detail below.

Loan Servicing Revenue: While portions of the loans that the Bank originates are sold and generate gain on sale revenue, servicing rights for all loans that the Bank originates, including loans sold, are retained by the Bank. In exchange for continuing to service loans that are sold, the Bank receives fee income represented in loan servicing revenue equivalent to one percent of the outstanding balance of SBA loans sold and 0.40% of the outstanding balance of USDA loans sold. In addition, the standard cost of servicing sold loans is approximately 0.40% of the balance of the loans sold, which is included in the loan servicing revaluation computations. Unrecognized servicing revenue above the cost to service is reflected in a servicing asset recorded on the balance sheet. Revenues associated with the servicing of loans are recognized over the expected life of the loan through the income statement, and the servicing asset is reduced as this revenue is recognized. For the year ended December 31, 2017, loan servicing revenue increased $3.2 million, or 14.9%, to $24.6 million as compared to the year ended December 31, 2016, as a result of an increase in the average outstanding balance of guaranteed loans sold. At December 31, 2017, the outstanding balance of guaranteed loans sold in the secondary market was $2.68 billion compared to $2.28 billion at December 31, 2016.

Loan Servicing Revaluation: The Company revalues its serviced loan portfolio at least quarterly. The revaluation considers the amortization of the portfolio, current market conditions for loan sale premiums, and current prepayment speeds. For the years ended December 31, 2017 and 2016, there was a net negative loan servicing revaluation of $13.2 million and $8.4 million, respectively. The higher negative service revaluation amount for 2017 was principally driven by the increased amortization speed of the serviced portfolio which was largely impacted by the rising rate environment.

In consideration of the sensitivity of servicing rights as discussed above and in Note 7 to the accompanying audited financial statements, the following table is provided as of December 31, 2017 reflecting the effect on fair value due to changes in yield curve rates.

Change in Yield Curve Assumption	Increase (Decrease) in Value
+300 basis point	$(5,235)
+200 basis point	(3,613)
+100 basis point	(1,872)
- 100 basis point	2,020

Net Gains on Sale of Loans: For the year ended December 31, 2017, net gains on sales of loans of $78.6 million, increased $3.3 million, or 4.3%, compared to 2016. This increase was primarily due to a higher volume of guaranteed loans sold and to a lesser extent by an increase in the average net gain per loan sold. For 2017, the volume of guaranteed loans sold increased $26.0 million, or 3.4%, from $761.9 million in 2016 to $787.9 million in 2017. The average net gain on sale for 2017 was somewhat higher at $100 thousand of revenue for each $1 million in loans sold, compared to $99 thousand of revenue for each $1 million sold for 2016.

Noninterest Expense

Noninterest expense comprises all operating costs of the Company, such as employee related costs, travel, professional services, advertising and marketing expenses, exclusive of interest and income tax expense.

The following table shows the components of noninterest expense and the related dollar and percentage changes for the periods presented.

	Years Ended December 31,			2017/2018 Increase (Decrease)		2016/2017 Increase (Decrease)	
	2018	2017	2016	Amount	Percent	Amount	Percent
Noninterest expense							
Salaries and employee benefits	$77,411	$74,669	$62,996	$2,742	3.67 %	$11,673	18.53 %
Non-staff expenses:							
Travel expense	9,156	8,124	8,205	1,032	12.70	(81)	(0.99)
Professional services expense	4,878	4,937	3,482	(59)	(1.20)	1,455	41.79
Advertising and marketing expense	6,015	6,363	4,534	(348)	(5.47)	1,829	40.34
Occupancy expense	7,065	6,195	4,573	870	14.04	1,622	35.47
Data processing expense	12,010	8,449	5,299	3,561	42.15	3,150	59.45
Equipment expense	13,724	7,479	2,246	6,245	83.50	5,233	232.99
Other loan origination and maintenance expense	5,967	4,970	2,825	997	20.06	2,145	75.93
Renewable energy tax credit investment impairment	—	690	3,197	(690)	(100.00)	(2,507)	(78.42)
FDIC insurance	3,234	3,206	1,417	28	0.87	1,789	126.25
Title insurance closing services expense	912	2,418	—	(1,506)	(62.28)	2,418	100.00
Impairment expense on goodwill and other intangibles	2,680	3,648	—	(968)	(26.54)	3,648	100.00
Other expense	9,652	12,017	7,671	(2,365)	(19.68)	4,346	56.65
Total non-staff expenses	75,293	68,496	43,449	6,797	9.92	25,047	57.65
Total noninterest expense	$152,704	$143,165	$106,445	$9,539	6.66 %	$36,720	34.50 %

Years ended December 31, 2018 vs. 2017

Total noninterest expense for 2018 increased $9.5 million, or 6.7%, compared to 2017. The increase in noninterest expense was predominately driven by increased personnel, equipment, and data processing expenses. Partially mitigating the increase in noninterest expense were reductions in expenses associated with the retention and operation of the title insurance business. Changes in various components of noninterest expense are discussed below.

Salaries and employee benefits: Total personnel expense for 2018 increased by $2.7 million, or 3.7%, compared to 2017. The growth in personnel expense was due to the continued investment in human capital to support the growing loan and lease production from new and existing verticals, partially offset by transferring the recognition of costs associated with software development to data processing expense with the formation of Apiture. The increase in personnel expense was also mitigated by the Company's exit from the title insurance business during the third quarter of 2018, which reduced the full-time equivalent count by 33 for the last five months of the year. Full-time equivalent employees decreased from 515 at December 31, 2017 to 498 at December 31, 2018. Salaries and employee benefits expense included $9.2 million and $7.5 million of stock-based compensation in 2018 and 2017, respectively. Expenses related to the employee stock purchase program, stock grants, stock option compensation and restricted stock expense are all considered stock-based compensation.

Of the total stock-based compensation included in salaries and employee benefits, $1.4 million in both 2018 and 2017 was related to restricted stock unit ("RSU") awards for key employee retention with an effective grant date of May 24, 2016. See Note 14 - Benefit Plans for more information.

Travel expense: Travel expense increased $1.0 million, or 12.7%, compared to 2017. The increase was the result of expanding the business franchise and lending initiatives and the operation and maintenance of corporate aircraft.

Data processing expense: The total expenses associated with data processing and development increased $3.6 million, or 42.2%, compared to 2017. Largely influencing this increase was the contribution of software development resources to Apiture in the fourth quarter of 2017 which transferred the recognition of certain subsequent costs associated with the Company's technology development from salaries and employee benefits to data processing. Data processing expenses were additionally influenced by higher levels of activity in the core system and related software and applications to operate and expand the Company's digital platform.

Equipment expense: Equipment expenses increased $6.2 million, or 83.5%, compared to 2017. This increase was primarily the result of depreciation expense incurred on solar panels purchased for operating lease initiatives.

Title insurance closing services expense: Expenses associated with title insurance closing services decreased $1.5 million, or 62.3%, primarily driven by the exit from the title insurance business during the third quarter of 2018.

Impairment expense on goodwill and other intangibles, net: Impairment expense decreased $968 thousand, or 26.5%, compared to 2017. The Company incurred $3.6 million due to the impairment of intangible assets associated with the acquisition of Reltco during 2017 compared to $2.7 million in expense related to the seller financed exit of the title insurance business in the third quarter of 2018. See Notes 1 and 2 for additional discussion around the impairment of goodwill and intangibles at Reltco.

Other expense: Other expense decreased $2.4 million, or 19.7%, compared to the prior year. Activity for the year ended December 31, 2017 included acquisition and other costs associated with Reltco and Apiture, and losses incurred with the trade-in of aircraft. These expenses were predominantly non-routine and largely absent from the year ended December 31, 2018.

Years ended December 31, 2017 vs. 2016

Total noninterest expense for 2017 increased $36.7 million, or 34.5%, compared to 2016. The increase in noninterest expense was predominately impacted by increased personnel, equipment, data processing, title insurance business operating and impairment related costs and other expenses primarily driven by the significant growth of the Company's core business. Changes in various components of noninterest expense are discussed below.

Salaries and employee benefits: Total personnel expense for 2017 increased by $11.7 million, or 18.5%, compared to 2016. A significant driver of this increase was the acquisition of a nationwide title insurance business on February 1, 2017 with 54 full-time and 5 part-time employees. Also contributing to the growth in personnel expense was continued investment in human capital to support the growing loan and lease production from new and existing verticals. Full-time equivalent employees increased from 411 at December 31, 2016 to 515 at December 31, 2017. Salaries and employee benefits expense included $7.5 million and $12.1 million of stock-based compensation in 2017 and 2016, respectively. Expenses related to the employee stock purchase program, stock grants, stock options, stock option compensation and restricted stock expense are all considered stock-based compensation.

Total stock-based compensation included $1.4 million and $9.0 million in 2017 and 2016, respectively, related to restricted stock unit ("RSU") awards for key employee retention with an effective grant date of May 24, 2016. See Note 14 - Benefit Plans for more information.

Professional services: Total expenses related to professional services for 2017 increased $1.5 million, or 41.8%, compared to 2016. The increase is the result of legal fees and closing costs associated with the renewable energy leasing initiative that began in 2017. Additionally, legal costs and consulting expenses associated with the acquisition of Reltco and the formation of Apiture contributed to the increase.

Advertising and marketing expense: Advertising and marketing expenses increased $1.8 million, or 40.3%, compared to 2016. The increase was primarily the result of efforts to promote brand recognition for new lending activities and maintain existing brand reputation and relationships in existing verticals.

Occupancy expense: Total occupancy costs increased $1.6 million, or 35.5%, compared to 2016. The increase in occupancy expense resulted from higher levels of personnel to support loan production and portfolio service along with related infrastructure. Additionally, the Company began incurring costs related to the planned expansion of its main campus in 2017.

Data processing expense: The total expenses associated with data processing and development increased $3.2 million, or 59.4%, compared to 2016. The increase was principally due to increased levels of activity in the core system from the substantial growth in loan originations, and related software and applications to operate and expand the Company's digital platform. The formation of Apiture resulted in the Company's contribution of development resources that were historically reflected in salaries and benefits. After the formation of the joint venture, services provided by Apiture to the Company are reflected in data processing expense.

Equipment expense: Equipment expenses increased $5.2 million, or 233.0%, compared to 2016. This increase was primarily the result of depreciation expense incurred on solar panels purchased for the renewable energy leasing initiative. Additionally, the Company's aircraft depreciation expense increased for 2017 following its purchase of new aircraft and shortening the useful life of its existing aircraft.

Other loan origination and maintenance expense: Total expenses related to loan origination activity increased $2.1 million, or 75.9%, compared to 2016. The increase is primarily attributable to the ongoing guarantee fee for the retained SBA loan portfolio.

Renewable energy tax credit investment impairment: The Company incurred $690 thousand and $3.2 million in impairment charges in 2017 and 2016, respectively, both related to the 2016 renewable energy tax credit investment of $4.6 million. As stated in the prior year, investments of this type generate a return primarily through the realization of federal and state income tax credits and other tax benefits; accordingly, impairment of the investment amount is recognized in conjunction with the realization of related tax benefits.

FDIC insurance: Total Federal Deposit Insurance Corporation (FDIC) insurance expense increased $1.8 million, or 126.3%, compared to 2016. This increase was the result of revised premium requirements of all FDIC-insured financial institutions in the latter part of 2016 along with significantly higher deposit levels.

Title insurance closing services expense: The Company began incurring expenses related to is title insurance closing services in 2017 with the first quarter acquisition of Reltco. The expenses totaled $2.4 million for the year and reflects the cost of closing services such as notary and abstracting in the delivery of title insurance agency products.

Impairment expense on goodwill and other intangibles: The Company incurred $3.6 million due to the impairment of intangible assets associated with the acquisition of Reltco. See Notes 1 and 2 for additional discussion around the impairment of goodwill and intangibles at Reltco.

Other expenses: Total other expenses increased $4.3 million, or 56.7%, compared to 2016. This increase was composed predominately of charitable initiatives, costs associated with the newly acquired title company, a first quarter 2017 loss incurred upon the trade-in of an existing aircraft and general expenditures to support business growth.

Income Tax Expense

Years ended December 31, 2018 vs. 2017

For 2018 and 2017, there was an income tax benefit of $5.4 million and $2.2 million, respectively, and the Company's effective tax rates were (11.7)% and (2.3)%, respectively. The negative effective rate for 2018 and 2017 was largely a product of significant investments in renewable energy assets which generate investment tax credits. The negative effective rate in 2017 was also significantly impacted by positive tax effects arising from changes in enacted tax legislation.

The Company invested $70.2 million and $90.6 million in renewable energy assets that generated $20.3 million and $24.9 million in investment tax credits in 2018 and 2017, respectively. Also, on December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cut and Jobs Act (the "Tax Act"). The Tax Act made broad and complex changes to the U.S. tax code that affected 2018 and 2017, including, but not limited to, accelerated depreciation that allows for full expensing of qualified property. The Tax Act also enacted a reduction in the U.S. federal corporate income tax rate from 35% to 21% effective in 2018. As a result of the reduction of the federal corporate income tax rate, the Company revalued its net deferred tax liability, excluding after tax credits, as of December 31, 2017, and recorded a provisional net tax benefit of $18.9 million to reduce the net deferred tax liability balance, which was recorded as a reduction in income tax expense for the year ended December 31, 2017. During 2018, the Company completed its accounting for the effects of the Tax Act which resulted in an increase to income tax expense of $244 thousand.

See Note 11 – Income Taxes for more information.

Years ended December 31, 2017 vs. 2016

For 2017 and 2016 income tax (benefit) expense totaled $(2.2) million and $3.4 million, respectively, and the Company's effective tax rates were (2.3)% and 20.0%, respectively. The negative effective rate for 2017 was largely a product of significant investments in renewable energy assets which generate investment tax credits, the positive tax effects arising from changes in enacted tax legislation, and the adoption of a stock-based compensation accounting standard.

The Company invested $90.6 million and $4.6 million in renewable energy assets that generated $24.9 million and $5.5 million in investment tax credits in 2017 and 2016, respectively. Also, as a result of the reduction of the federal corporate income tax rate enacted by the Tax Act, the Company revalued its net deferred tax liability, excluding after tax credits, as of December 31, 2017. Based on this revaluation, the Company recorded a provisional net tax benefit of $18.9 million to reduce the net deferred tax liability balance, which was recorded as a reduction in income tax expense for the year ended December 31, 2017. The 2017 tax rate also benefited from the first quarter adoption of a new accounting pronouncement related to the treatment of share based compensation issued by the Financial Accounting Standards Board that was effective January 1, 2017; "Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting," also referred to as ASU 2016-09.

Tax Cuts and Jobs Act. Among other things, the new Tax Act (i) establishes a new, flat corporate federal statutory income tax rate of 21%, (ii) eliminates the corporate alternative minimum tax and allows the use of any such carryforwards to offset regular tax liability for any taxable year, (iii) limits the deduction for net interest expense incurred by U.S. corporations, (iv) allows businesses to immediately expense, for tax purposes, the cost of new investments in certain qualified depreciable assets, (v) eliminates or reduces certain deductions related to meals and entertainment expenses, (vi) modifies the limitation on excessive employee remuneration to eliminate the exception for performance-based compensation and clarifies the definition of a covered employee and (vii) limits the deductibility of deposit insurance premiums. The Tax Cuts and Jobs Act also significantly changes U.S. tax law related to foreign operations, however, such changes do not currently impact the Company.

Discussion and Analysis of Financial Condition

Years ended December 31, 2018 vs. 2017

Total assets at December 31, 2018 were $3.67 billion, an increase of $912.0 million, or 33.1%, compared to total assets of $2.76 billion at December 31, 2017. This increase was principally driven by the following:

- Growth in cash and investments was largely the result of successful deposit gathering campaigns generating $889.3 million in new deposits arising from strategic initiatives to strengthen the Company’s liquidity profile and sources of contingent funding;
- Growth in loan and leases held for sale and held for investment resulting from strong originations and higher levels of balances being retained, in alignment with the Company’s fourth quarter strategic decision to migrate to a more recurring revenue model; and
- Growth in premises and equipment related primarily to the addition of solar panels to meet leasing commitments combined with construction of new facilities to provide infrastructure to support Company expansion.

Cash and cash equivalents were $316.8 million at December 31, 2018, an increase of $21.6 million, or 7.3%, compared to $295.3 million at December 31, 2017. This increase was primarily the result of increases in the deposit portfolio and the sale of loans.

Total investment securities increased $287.1 million during 2018, from $93.4 million at December 31, 2017 to $380.5 million at December 31, 2018, an increase of 307.6%. The Company increased its investment securities position during 2018 as part of the aforementioned strategic liquidity initiative employed to enhance contingent funding sources. At December 31, 2018, the investment portfolio was comprised of US treasury and government agency securities, residential mortgage-backed securities and a municipal bond.

Loans held for sale increased $6.9 million, or 1.02%, during 2018, from $680.5 million at December 31, 2017 to $687.4 million at December 31, 2018. The increase was primarily the result of loan origination activities throughout 2018 offset by loan sales and the reclassification to loans held for investment as part of Company's new focus on retaining larger volumes of its guaranteed loan originations.

Loans and leases held for investment increased $499.4 million, or 37.2%, during 2018, from $1.34 billion at December 31, 2017 to $1.84 billion at December 31, 2018. The increase was the result of loan and lease growth from origination activities during 2018 and the reclassification of loans from held for sale status, as a part of the above referenced strategic decision to retain higher levels of loans.

Premises and equipment increased $83.7 million, or 46.8%, during 2018, from $178.8 million at December 31, 2017 to $262.5 million at December 31, 2018. This increase was primarily driven by the addition of solar panels to meet leasing commitments and the expansion of facilities at the Company's headquarters.

Servicing assets decreased $4.7 million, or 8.9%, during 2018 from $52.3 million at December 31, 2017 to $47.6 million at December 31, 2018. The decrease in servicing assets is due to the higher negative loan servicing revaluation amount in 2018 discussed more fully in the preceding Noninterest Income section under the subheading "Loan Servicing Revaluation." This decrease was partially offset by additions to the servicing asset from ongoing loan sales.

Other assets increased $22.0 million, or 16.4%, during 2018, from $134.2 million at December 31, 2017 to $156.2 million at December 31, 2018, principally as a result of increases in accrued interest receivable on loans and leases of $5.7 million, $12.1 million in other investments which are generally comprised of non-marketable equity securities, and an aircraft reclassified as held for sale with a carrying amount of $10.5 million.

Total deposits were $3.15 billion at December 31, 2018, an increase of $889.3 million, or 39.3%, from $2.26 billion at December 31, 2017. The increase in deposits was driven by successful deposit initiatives to support the growth in loan and lease originations and strengthen the Company's liquidity profile.

Long term borrowings decreased $26.5 million, or 99.9%, during 2018, from $26.6 million at December 31, 2017 to $16 thousand at December 31, 2018. The decrease was primarily the result of significant debt reductions during the first quarter of 2018, largely funded by capital raised in the third quarter of 2017.

Other liabilities decreased $8.9 million, or 25.5%, during 2018, from $34.7 million at December 31, 2017 to $25.8 million at December 31, 2018, primarily driven by a decrease in deferred tax liabilities of $5.9 million combined with the reversal of $1.9 million in contingent consideration related to the disposition of the title insurance business.

Shareholders' equity at December 31, 2018 was $493.6 million as compared to $436.9 million at December 31, 2017. The book value per share was $12.29 at December 31, 2018 and average equity to average assets was 13.8% for 2018, compared to a book value per share of $10.95 at December 31, 2017 and average equity to average assets of 13.5% for the year ended December 31, 2017. The increase in shareholders' equity is principally the result of net income to common shareholders of $51.4 million, stock-based compensation expense of $9.2 million and $2.0 million arising from stock option exercises combined with employee stock purchase programs, partially offset by $4.8 million in dividends.

Years ended December 31, 2017 vs. 2016

Total assets at December 31, 2017 were $2.76 billion, an increase of $1.00 billion, or 57.2%, compared to total assets of $1.76 billion at December 31, 2016. This increase was principally driven by the following:

- Growth in cash and investments, largely a product of the secondary offering in August of 2017 of $113.1 million combined with successful deposit gathering campaigns generating $247.4 million in new deposits;
- Growth in loan and lease originations combined with longer retention times of loans held for sale, composed largely of loans in newer verticals which require a period of loan advances to become fully funded prior to being sold;
- Growth in premises and equipment related primarily to construction of a new aircraft hangar, the addition of two new aircraft in replacement of two older ones and the addition of solar panels to meet leasing commitments;

- The increase in other assets largely related to:
  - $68.0 million one-time pretax gain recognized as a result of the fourth quarter 2017 equity method investment in Apiture, see Note 3. Unconsolidated Joint Venture for further discussion;
  - income taxes receivable arising from investment tax credits generated by investment in solar panels classified in premises and equipment in which the Company is the lessor; and
  - intangibles of $4.3 million generated by the first quarter acquisition of Reltco.

Cash and due from banks were $295.3 million at December 31, 2017, an increase of $57.3 million, or 24.1%, compared to $238.0 million at December 31, 2016. This increase was largely the result of the August 2017 secondary public offering which generated net proceeds of $113.1 million combined with increases in the deposit portfolio.

Total investment securities increased $22.3 million during 2017, from $71.1 million at December 31, 2016 to $93.4 million at December 31, 2017, an increase of 31.4%. The portfolio is composed of US government agency securities, residential mortgage-backed securities and a mutual fund.

Loans held for sale increased $286.2 million, or 72.6%, during 2017, from $394.3 million at December 31, 2016 to $680.5 million at December 31, 2017. The increase was primarily the result of strong growth in loan origination activities throughout 2017 combined with the Company’s continued focus on longer duration of loan retention which has improved recurring revenue growth.

Loans and leases held for investment increased $436.4 million, or 48.1%, during 2017, from $907.6 million at December 31, 2016 to $1.34 billion at December 31, 2017. The increase was the result of robust loan and lease origination activities during 2017.

Premises and equipment increased $114.1 million, or 176.5%, during 2017, from $64.7 million at December 31, 2016 to $178.8 million at December 31, 2017. This increase was primarily driven by construction of a new aircraft hangar and the replacement of two older aircraft with two new ones better suited to service the Company's growing nationwide customer base and the addition of solar panels to meet leasing commitments.

Foreclosed assets decreased $367 thousand, or 22.3%, to $1.3 million at December 31, 2017, from $1.6 million at December 31, 2016. Of this decrease, $156 thousand was associated with foreclosed assets relating to portions of loans not guaranteed by the SBA.

Servicing assets increased $304 thousand, or 0.6%, during 2017 from $52.0 million at December 31, 2016 to $52.3 million at December 31, 2017. The increase in servicing assets is the result of loan sales slightly outpacing the amortization of the existing serviced portfolio.

Other assets increased $97.2 million, or 262.7%, during 2017, from $37.0 million at December 31, 2016 to $134.2 million at December 31, 2017. The increase in other assets is primarily the result of the $68.0 million equity method investment in Apiture, the recognition of $16.2 million in income taxes receivable arising from investment tax credits generated from the investment in solar panel leasing activities, and the first quarter 2017 acquisition of the nationwide title insurance business. As a result of the title insurance acquisition, other assets included $4.3 million in intangible assets.

Total deposits were $2.26 billion at December 31, 2017, an increase of $775.2 million, or 52.2%, from $1.49 billion at December 31, 2016. The increase in deposits was driven by successful deposit initiatives to support the growth in loan originations.

Other liabilities increased $15.2 million, or 78.1%, during 2017, from $19.5 million at December 31, 2016 to $34.7 million at December 31, 2017. The increase in other liabilities was principally driven by an $11.8 million increase in

deferred tax liabilities combined with an earn-out contingent liability of $1.9 million related to the acquisition of the title insurance business.

Shareholders' equity at December 31, 2017 was $436.9 million as compared to $222.8 million at December 31, 2016. The book value per share was $10.95 at December 31, 2017 and average equity to average assets was 13.5% for 2017, compared to a book value per share of $6.51 at December 31, 2016 and average equity to average assets of 14.6% for the year ended December 31, 2016. The increase in shareholders' equity was principally the result of several factors including the issuance of 5.2 million additional common shares with net proceeds of $113.1 million, net income to common shareholders for 2017 of $100.5 million, combined with stock-based compensation expense of $7.5 million and $565 thousand related to the issuance of stock in the title insurance company acquisition. These factors were partially offset by cash withheld in lieu of issuing restricted stock upon vesting of $4.9 million and by $3.8 million in dividends.

Loans

As of December 31, 2018 and 2017, the cumulative total outstanding principal balance of guaranteed loans sold since May 2007 totaled $3.05 billion and $2.68 billion, respectively. The Company has historically sold a significant portion of loans it originates in the secondary market while it continues to service the loans sold in full. As of December 31, 2018 and 2017, combined loans and leases held for investment and held for sale totaled $2.53 billion and $2.02 billion, respectively. Any loan or portion of a loan that the Company has the intent and ability to sell is classified as held for sale.

The average age of the held for sale portfolio as of December 31, 2018 was 11.6 months from origination date. Less than 15% of the current held for sale portfolio is older than two years. The majority of held for sale loans over one year old are composed of construction loans. Construction loans typically have extended build out periods that inherently result in longer lead times between origination and the ultimate sale date. Approximately 47.0% of the held for sale portfolio is aged between one and two years. All loans classified as special mention (risk grade 5) or worse are identified as impaired are excluded from the held for sale loan portfolio.

As of December 31, 2018 and 2017, loans and leases held for investment totaled $1.84 billion and $1.34 billion, respectively. The increase in loans and leases held for investment is the result of continued growth in loan and lease originations, combined with the Company's fourth quarter strategic decision to shift to retain higher levels of loans. The following table presents the balance and associated relative percentage of each category of loans and leases held for investment within the loan and lease portfolio at the five most recently completed fiscal year ends. The following held for investment loan and lease tables do not include net deferred costs and discounts on SBA 7(a) and USDA unguaranteed loans. The net impact on loans and leases held for investment for net deferred costs and discounts on SBA 7(a) unguaranteed loans and leases is $(7.1) million, $(2.9) million, $(926) thousand, $23 thousand, and $485 thousand as of December 31, 2018, 2017, 2016, 2015 and 2014, respectively.

	2018		2017		2016		2015		2014	
	Total Loans and Leases	% of Total Loans and Leases	Total Loans and Leases	% of Total Loans and Leases	Total Loans and Leases	% of Total Loans and Leases	Total Loans and Leases	% of Total Loans and Leases	Total Loans and Leases	% of Total Loans and Leases
Commercial & Industrial										
Agriculture	$6,400	0.35 %	$3,274	0.24 %	$1,714	0.19 %	$30	0.01 %	$—	— %
Death Care Management	17,378	0.94	13,495	1.00	9,684	1.06	4,832	1.73	3,603	1.77
Healthcare	51,082	2.76	43,301	3.21	37,270	4.10	15,240	5.44	12,319	6.06
Independent Pharmacies	108,783	5.88	99,920	7.42	83,677	9.21	41,588	14.86	34,079	16.75
Registered Investment Advisors	94,338	5.10	93,770	6.96	68,335	7.52	18,358	6.56	9,660	4.75
Veterinary Industry	45,604	2.46	46,387	3.45	38,930	4.29	21,579	7.71	20,902	10.27
Other Industries	295,163	15.95	184,903	13.73	94,836	10.44	3,230	1.15	494	0.24
Total	618,748	33.44	485,050	36.01	334,446	36.81	104,857	37.46	81,057	39.84
Construction & Development										
Agriculture	43,454	2.35	34,188	2.54	32,372	3.56	11,351	4.05	3,910	1.92
Death Care Management	9,874	0.53	6,119	0.45	3,956	0.44	769	0.27	92	0.05
Healthcare	81,619	4.41	49,770	3.70	30,467	3.35	7,231	2.58	2,957	1.45
Independent Pharmacies	2,149	0.12	1,496	0.11	2,013	0.22	101	0.04	215	0.11
	1,232	0.07	376	0.03	294	0.03	378	0.13	—	—

Registered Investment Advisors										
Veterinary Industry	14,094	0.76	13,184	0.98	11,514	1.27	3,834	1.37	2,207	1.08
Other Industries	96,482	5.21	58,120	4.32	31,715	3.49	658	0.24	145	0.07
Total	248,904	13.45	163,253	12.13	112,331	12.36	24,322	8.68	9,526	4.68
Commercial Real Estate										
Agriculture	53,085	2.87	46,717	3.47	5,591	0.62	1,863	0.67	259	0.13
Death Care Management	71,344	3.85	67,381	5.00	52,510	5.78	20,327	7.26	18,879	9.28
Healthcare	188,531	10.19	126,631	9.40	114,281	12.58	37,684	13.46	26,173	12.86
Independent Pharmacies	20,597	1.11	19,028	1.41	15,151	1.67	7,298	2.61	4,750	2.33
Registered Investment Advisors	7,905	0.43	11,789	0.88	11,462	1.26	2,808	1.00	2,161	1.06
Veterinary Industry	136,721	7.39	113,932	8.46	102,906	11.33	59,999	21.43	57,934	28.48
Other Industries	260,847	14.10	134,172	9.96	46,245	5.09	4,752	1.70	1,464	0.72
Total	739,030	39.94	519,650	38.58	348,146	38.33	134,731	48.13	111,620	54.86
Commercial Land										
Agriculture	243,798	13.17	178,897	13.28	113,569	12.50	16,036	5.73	1,248	0.62
Total	243,798	13.17	178,897	13.28	113,569	12.50	16,036	5.73	1,248	0.62
Total Loans and Leases	$1,850,480	100.00%	$1,346,850	100.00%	$908,492	100.00%	$279,946	100.00%	$203,451	100.00%

Regardless of the classification reflected above and discussed in more detail below, the loans and leases the Bank originates are generally to small businesses where operating cash flow is the primary source of repayment, but may also include collateralization by real estate, inventory, accounts receivable, equipment and/or personal guarantees. When collateral includes real estate it is typically owner-occupied. These common attributes among most of the loans the Bank funds is a product of the Bank's specialization as a government guaranteed program lender.

Commercial & Industrial: Commercial & Industrial, or C&I, loans and leases increased $133.7 million, or 27.6%, from December 31, 2017 to December 31, 2018. Increases occurred in all verticals except the Veterinary Industry, with most of the growth occurring in the Healthcare, Independent Pharmacies, and Other Industries verticals which increased $7.8 million, $8.9 million and $110.3 million, respectively, due to the Bank's marketing efforts and brand recognition in these industries. The majority of the increase in the Other Industries category was attributable to Government Contracting, SBA General Lending, and Wine and Craft Beverage, with respective increases of $43.1 million, $28.6 million and $17.9 million. Real estate collateral on C&I loans and leases is often owner occupied. The premises for industries in C&I loans and leases tend to have either a small real estate component or the business occupies a leasehold space. Terms for C&I loans and leases are generally ten years.

Construction & Development: Construction and Development, or C&D, loans increased $85.7 million, or 52.5%, from December 31, 2017 to December 31, 2018. The increase was also across all verticals, with the majority of growth arising from increased industry emphasis on facility expansion principally in the Healthcare and Other Industries, verticals which increased $31.8 million and $38.4 million, respectively. The majority of the increase in the Other Industries category was attributable to Self Storage, Hotels, and Early Education Services, with respective increases of $17.2 million, $6.8 million, and $5.9 million. Terms for C&D loans are generally 20 to 25 years.

Commercial Real Estate: Commercial Real Estate, or CRE, loans increased $219.4 million, or 42.2%, from December 31, 2017 to December 31, 2018. All CRE verticals experienced growth in 2018 except Registered Investment Advisors, with the largest increases occurring in Healthcare and Hotels, included in Other Industries, verticals with year to year growth of $61.9 million and $38.0 million, respectively. Growth in CRE lending was largely attributed to ongoing facility expansion and acquisition activity during 2018.

Commercial Land: Commercial land loans increased $64.9 million, or 36.3%, from December 31, 2017 to December 31, 2018. Commercial land loans are solely comprised of credits within the Agriculture vertical. The growth in commercial land lending was driven by the Bank's continued expansion into the poultry segment of the Agriculture vertical.

Loan and Lease Concentration

Loan and lease concentrations may exist when there are borrowers engaged in similar activities or types of loans and leases extended to a diverse group of borrowers that could cause those borrowers or portfolios to be similarly impacted by economic or other conditions. The breakdown of total held for sale loans by industry sector is presented in the following table. The following table does not include net deferred costs and discount on SBA 7(a) unguaranteed loans. The net impact on loans held for sale for net deferred costs and discount on SBA 7(a) and USDA unguaranteed loans is $3.8 million, $6.6 million, $4.5 million, $3.2 million, and $3.1 million as of December 31, 2018, 2017, 2016, 2015 and 2014, respectively.

The following table presents a breakdown of total held for sale loans by industry sector:

December 31, 2018 Concentration Risk			At December 31, 2017 Concentration Risk			At December 31, 2016 Concentration Risk			At December 31, 2015 Concentration Risk			At December 31 Concentration R	
nguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Unguaranteed	Gua
—	$1,235	$1,235	$—	$2,276	$2,276	$—	$1,248	$1,248	$171	$51	$222	$—	$—
—	1,571	1,571	—	4,619	4,619	—	841	841	3,483	556	4,039	2,312	2,8
—	11,380	11,380	—	22,540	22,540	—	5,061	5,061	13,728	2,046	15,774	5,250	4,9
—	5,887	5,887	—	2,357	2,357	—	2,930	2,930	29,903	2,833	32,736	24,513	6,6
—	3,102	3,102	—	12,201	12,201	—	10,360	10,360	17,537	5,087	22,624	9,471	5,6
—	12,166	12,166	—	17,820	17,820	—	5,639	5,639	12,894	2,838	15,732	9,301	5,7
5,216	101,144	136,360	—	67,719	67,719	—	32,121	32,121	8,774	6,624	15,398	1,500	96
5,216	136,485	171,701	—	129,532	129,532	—	58,200	58,200	86,490	20,035	106,525	52,347	26,
—	55,415	55,415	—	81,902	81,902	—	96,028	96,028	17,005	83,949	100,954	2,246	11,
—	19,166	19,166	—	12,278	12,278	—	10,299	10,299	1,698	5,778	7,476	36	17
—	125,888	125,888	—	130,154	130,154	—	73,596	73,596	11,469	54,374	65,843	1,764	8,6
—	6,448	6,448	—	4,489	4,489	—	6,041	6,041	152	760	912	—	—
—	1,437	1,437	—	1,128	1,128	—	881	881	567	2,835	3,402	—	—
—	35,201	35,201	—	31,038	31,038	—	21,377	21,377	3,900	19,360	23,260	1,677	8,3
—	180,723	180,723	—	120,990	120,990	—	38,698	38,698	1,590	4,934	6,524	16	79
—	424,278	424,278	—	381,979	381,979	—	246,920	246,920	36,381	171,990	208,371	5,739	28,
—	7,671	7,671	—	47,001	47,001	—	—	—	2,794	6,455	9,249	1,809	9,0
—	3,989	3,989	—	10,487	10,487	—	3,336	3,336	17,808	1,971	19,779	15,572	4,7

—	14,788	14,788	—	25,255	25,255	—	12,224	12,224	34,749	10,974	45,723	24,668	33,
—	1,071	1,071	—	975	975	—	1,996	1,996	5,661	2,325	7,986	5,082	3,1
—	885	885	—	222	222	—	1,186	1,186	2,205	—	2,205	2,731	2,4
—	3,732	3,732	—	15,145	15,145	—	8,039	8,039	32,025	1,690	33,715	26,237	22,
—	32,310	32,310	—	34,021	34,021	—	8,333	8,333	9,880	1,104	10,984	2,865	1,8
—	64,446	64,446	—	133,106	133,106	—	35,114	35,114	105,122	24,519	129,641	78,964	77,
—	23,162	23,162	—	29,258	29,258	—	49,519	49,519	24,382	8,529	32,911	5,472	16,
—	23,162	23,162	—	29,258	29,258	—	49,519	49,519	24,382	8,529	32,911	5,472	16,
5,216	$648,371	$683,587	$—	$673,875	$673,875	$—	$389,753	$389,753	$252,375	$225,073	$477,448	$142,522	$149

The addition of unguaranteed loans to the held for sale classification in 2018 was related to certain Renewable Energy credits. These unguaranteed credits have been classified as held for sale due to the Company's intent to manage exposure with certain borrower relationships.

When a loan held for sale exhibits credit quality issues (i.e., the loan is on nonaccrual, downgraded to special mention, risk grade 5, or greater) it is transferred to loans and leases held for investment. Accordingly, all loans and leases experiencing charge-offs are classified as held for investment. For loans and leases transferred from held for sale to held for investment during the twelve months ended December 31, 2018 and 2017 there have been charge offs of $509 thousand and none, respectively. For loans transferred from held for investment to held for sale during the twelve months ended December 31, 2018 and 2017 there have been no charge offs. As of December 31, 2018 and 2017, there were no loans or leases classified as held for sale which were identified as being impaired or on nonaccrual status.

The following table presents total held-for-investment loans and leases by industry sector:

er 31, 2018			At December 31, 2017			At December 31, 2016			At December 31, 2015			At De
on Risk			Concentration Risk			Concentration Risk			Concentration Risk			Conc
ed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Ungu
$2,583	$6,400		$2,942	$332	$3,274	$1,556	$158	$1,714	$30	$—	$30	$—
734	17,378		13,295	200	13,495	9,403	281	9,684	4,832	—	4,832	3,60
11,723	51,082		39,123	4,178	43,301	31,791	5,479	37,270	11,900	3,340	15,240	8,77
12,695	108,783		91,982	7,938	99,920	78,953	4,724	83,677	40,025	1,563	41,588	31,6
9,739	94,338		93,321	449	93,770	67,914	421	68,335	18,358	—	18,358	9,66
5,038	45,604		43,371	3,016	46,387	35,981	2,949	38,930	19,247	2,332	21,579	17,4
16,598	295,163		184,393	510	184,903	94,436	400	94,836	3,124	106	3,230	373
59,110	618,748		468,427	16,623	485,050	320,034	14,412	334,446	97,516	7,341	104,857	71,5
7,249	43,454		30,224	3,964	34,188	32,139	233	32,372	11,233	118	11,351	3,91
—	9,874		6,119	—	6,119	3,956	—	3,956	769	—	769	92
22,096	81,619		48,302	1,468	49,770	30,467	—	30,467	7,231	—	7,231	2,95
—	2,149		1,496	—	1,496	2,013	—	2,013	101	—	101	215
—	1,232		376	—	376	294	—	294	378	—	378	—
—	14,094		13,184	—	13,184	10,173	1,341	11,514	3,296	538	3,834	2,20
2,867	96,482		58,120	—	58,120	31,715	—	31,715	658	—	658	145
32,212	248,904		157,821	5,432	163,253	110,757	1,574	112,331	23,666	656	24,322	9,52
20,795	53,085		30,871	15,846	46,717	5,591	—	5,591	1,863	—	1,863	259
3,855	71,344		65,836	1,545	67,381	50,918	1,592	52,510	19,037	1,290	20,327	17,3

41,110	188,531	121,635	4,996	126,631	106,924	7,357	114,281	36,885	799	37,684	24,2
4,078	20,597	17,466	1,562	19,028	15,151	—	15,151	7,298	—	7,298	4,75
—	7,905	11,789	—	11,789	11,462	—	11,462	2,808	—	2,808	2,16
23,961	136,721	103,303	10,629	113,932	94,081	8,825	102,906	52,911	7,088	59,999	49,9
27,802	260,847	133,263	909	134,172	45,997	248	46,245	4,752	—	4,752	1,17
121,601	739,030	484,163	35,487	519,650	330,124	18,022	348,146	125,554	9,177	134,731	99,8
92,469	243,798	136,752	42,145	178,897	109,918	3,651	113,569	16,036	—	16,036	1,24
92,469	243,798	136,752	42,145	178,897	109,918	3,651	113,569	16,036	—	16,036	1,24
$305,392	$1,850,480	$1,247,163	$99,687	$1,346,850	$870,833	$37,659	$908,492	$262,772	$17,174	$279,946	$182

Loans and leases held for investment generally consist of unguaranteed loan and lease balances, loans and leases classified as special mention (Risk Grade 5) or worse and those identified as impaired. At December 31, 2018, total guaranteed loans and leases held for investment classified as special mention or worse was $69.3 million with $43.2 million on a non-accrual basis. Of total guaranteed loans and leases held for investment at December 31, 2017, $34.7 million was classified as special mention or worse with $19.9 million on a non-accrual basis. Prior to 2018, the Company has generally classified the guaranteed portion of all performing loans as held for sale. In the fourth quarter of 2018, the Company implemented a strategic decision to migrate to a revenue model that is more recurring in nature. As a result of this change in strategic direction, $80.3 million in guaranteed loans were reclassified from held for sale to held for investment status.

Agriculture loans and leases represent the largest vertical at $346.7 million, or 18.7%, of the total held for investment balance at December 31, 2018. From May 2007 through December 31, 2018, the Bank originated $1.15 billion in loans and leases to small business professionals in the Agriculture vertical with $819.0 million in outstanding principal remaining in the servicing portfolio and $434.2 million remining on the consolidated balance sheet. Loans and leases to healthcare professionals represent the second largest vertical at $321.2 million, or 17.4%, of the total held for investment balance. From inception in May 2007 through December 31, 2018, the Company originated $1.52 billion of loans and leases to small business professionals in the Healthcare vertical, with $969.9 million in outstanding principal remaining in the servicing portfolio and $473.3 million remining on the consolidated balance sheet. Veterinary loans and leases represent the third largest vertical at $196.4 million, or 10.6%, of the total held for investment balance. The Veterinary vertical was the original vertical and formed the basis of the Company's existing model. From May 2007 through December 31, 2018, the Bank originated $1.56 billion loans and leases to small business professionals in the Veterinary vertical with $723.0 million in outstanding principal remaining in the servicing portfolio and $247.5 million remaining on the consolidated balance sheet.

The Company believes the risk associated with industry concentration is mitigated by the geographical diversity of the overall loan and lease portfolio with loans and leases originated in each of the fifty U.S. states and certain U.S. territories. Additionally, the Company has demonstrated the ability to expand lending activities into selected new verticals and intends to continue this expansion in the future. To the extent that the Company is successful in expanding into new verticals, the Company believes any risk related to concentration within any one industry will be further mitigated.

At December 31, 2018, no single SBA or USDA loan had an outstanding borrower principal balance greater than $5.0 million and $25.0 million, respectively. The average loan size at origination for the Company's entire portfolio in its chosen industries in 2018 was $1.3 million, and the average original lease receivable was $233 thousand. At December 31, 2018, the average outstanding balance per loan was approximately $503 thousand, and the average outstanding balance per lease was $213 thousand. The outstanding principal balance of the full loan and lease portfolio, including those serviced for others, totaled $5.75 billion of which $1.84 billion was held for investment.

Loan and Lease Maturity

As of December 31, 2018, $5.17 billion, or 89.9%, of the total outstanding principal loans and leases, including those serviced for others, were variable rate loans that adjust at specified dates based on the prime lending rate or other variable indices. As of December 31, 2018, $3.94 billion, or 68.5%, of total outstanding principal loans and leases were variable rate loans that adjust on either a calendar monthly or calendar quarterly basis using the prime lending rate or other variable indices. At December 31, 2018, 91.6%, or $2.32 billion, of the combined held for sale and held for investment loan and lease portfolio was composed of variable rate loans. At December 31, 2018, $160.6 million, or 8.7%, of the held for investment balance matures in less than five years. Loans and leases maturing in greater than five years total $1.69 billion of the total $1.84 billion. The variable rate portion of the total held for investment loans and leases is 90.3%, which reflects the Company's strategy to minimize interest rate risk through the use of variable

rate products.

	At December 31, 2018 Remaining Contractual Maturity of Total Held for Investment Loans and Leases (Excluding net deferred costs and discount on SBA 7(a) and USDA unguaranteed loans)			
	One Year or Less	After One Year and Through Five Years	After Five Years	Total
Fixed rate loans and leases:				
Commercial & Industrial				
Agriculture	$787	$6	$73	$866
Death Care Management	—	955	3,517	4,472
Healthcare	—	756	3,854	4,610
Independent Pharmacies	—	980	2,287	3,267
Registered Investment Advisors	—	1,498	9,505	11,003
Veterinary Industry	—	2,340	3,687	6,027
Other Industries	21,063	3,777	31,492	56,332
Total	21,850	10,312	54,415	86,577
Construction & Development				
Agriculture	7,221	—	8,097	15,318
Death Care Management	—	—	402	402
Healthcare	—	—	4,571	4,571
Independent Pharmacies	—	—	—	—
Registered Investment Advisors	—	—	86	86
Veterinary Industry	—	219	—	219
Other Industries	2,136	—	955	3,091
Total	9,357	219	14,111	23,687
Commercial Real Estate				
Agriculture	—	80	—	80
Death Care Management	—	—	11,058	11,058
Healthcare	—	—	28,381	28,381
Independent Pharmacies	—	—	—	—
Registered Investment Advisors	—	—	1,154	1,154
Veterinary Industry	—	—	9,955	9,955
Other Industries	—	512	7,735	8,247
Total	—	592	58,283	58,875
Commercial Land				

Agriculture	1,401	1,694	7,276	10,371
Total	1,401	1,694	7,276	10,371
Total fixed rate loans and leases	32,608	12,817	134,085	179,510
Variable rate loans and leases:				
Commercial & Industrial				
Agriculture	782	377	4,375	5,534
Death Care Management	46	74	12,786	12,906
Healthcare	—	1,482	44,990	46,472
Independent Pharmacies	103	9,652	95,761	105,516
Registered Investment Advisors	669	4,853	77,813	83,335
Veterinary Industry	137	2,304	37,136	39,577
Other Industries	32,770	33,921	172,140	238,831
Total	34,507	52,663	445,001	532,171
Construction & Development				
Agriculture	—	—	28,136	28,136
Death Care Management	—	2,868	6,604	9,472
Healthcare	—	—	77,048	77,048
Independent Pharmacies	—	—	2,149	2,149
Registered Investment Advisors	—	—	1,146	1,146
Veterinary Industry	—	—	13,875	13,875
Other Industries	2,077	1,002	90,312	93,391
Total	2,077	3,870	219,270	225,217
Commercial Real Estate				
Agriculture	—	—	53,005	53,005
Death Care Management	—	880	59,406	60,286
Healthcare	388	312	159,450	160,150
Independent Pharmacies	258	540	19,799	20,597
Registered Investment Advisors	—	30	6,721	6,751
Veterinary Industry	305	5,864	120,597	126,766
Other Industries	5,483	7,845	239,272	252,600
Total	6,434	15,471	658,250	680,155
Commercial Land				
Agriculture	—	168	233,259	233,427
Total	—	168	233,259	233,427
Total variable rate loans and leases	43,018	72,172	1,555,780	1,670,970
Total	$75,626	$84,989	$1,689,865	$1,850,480

Asset Quality

Management considers asset quality to be of primary importance. A formal loan review function, independent of loan origination, is used to identify and monitor problem loans. This function reports directly to the Audit & Risk Committee of the Board of Directors.

Nonperforming Assets

The Bank places loans and leases on nonaccrual status when they become 90 days past due as to principal or interest payments, or prior to that if management has determined based upon current information available to it that the timely collection of principal or interest is not probable. When a loan or lease is placed on nonaccrual status, any interest previously accrued as income but not actually collected is reversed and recorded as a reduction of loan or lease interest and fee income. Typically, collections of interest and principal received on a nonaccrual loan or lease are applied to the outstanding principal as determined at the time of collection of the loan or lease.

Troubled debt restructurings occur when, because of economic or legal reasons pertaining to the debtor's financial difficulties, debtors are granted concessions that would not otherwise be considered. Such concessions would include, but are not limited to, a modification of terms such as a reduction of the interest rate below the current market rate for a loan or lease with similar risk characteristics or the waiving of certain financial covenants without corresponding offsetting compensation or additional support.

The following table provides information with respect to nonperforming assets and troubled debt restructurings at the dates indicated.

	2018	2017	2016	2015	2014
Nonaccrual loans:					
Total nonperforming loans (all on nonaccrual)	$57,690	$23,480	$23,781	$12,367	$18,692
Total accruing loans past due 90 days or more	—	—	—	—	—
Foreclosed assets	1,094	1,281	1,648	2,666	1,084
Total troubled debt restructurings	27,495	10,223	9,856	11,021	10,611
Less nonaccrual troubled debt restructurings	(6,494)	(8,129)	(7,688)	(8,814)	(9,805)
Total performing troubled debt restructurings	21,001	2,094	2,168	2,207	806
Total nonperforming assets and troubled debt restructurings	$79,785	$26,855	$27,597	$17,240	$20,582
Total nonperforming loans to total loans and leases held for investment	3.13 %	1.75 %	2.62 %	4.42 %	9.17 %
Total nonperforming loans to total assets	1.57 %	0.85 %	1.36 %	1.17 %	2.78 %
Total nonperforming assets and troubled debt restructurings to total assets	2.17 %	0.97 %	1.57 %	1.64 %	3.06 %

	2018	2017	2016	2015	2014
Nonaccrual loans guaranteed by U.S. government:					
Total nonperforming loans guaranteed by the U.S. government (all on nonaccrual)	$43,202	$19,870	$18,997	$10,330	$15,555
Total accruing loans past due 90 days or more guaranteed by the U.S. government	—	—	—	—	—
Foreclosed assets guaranteed by the U.S. government	946	1,191	1,402	2,293	713
Total troubled debt restructurings guaranteed by the U.S. government	19,780	7,178	6,723	7,710	8,433
Less nonaccrual troubled debt restructurings guaranteed by the U.S. government	(5,684)	(7,099)	(6,602)	(7,550)	(8,433)
Total performing troubled debt restructurings guaranteed by U.S. government	14,096	79	121	160	—
Total nonperforming assets and troubled debt restructurings guaranteed by the U.S. government	$58,244	$21,140	$20,520	$12,783	$16,268
Total nonperforming loans not guaranteed by the U.S. government to total held for investment loans and leases	0.79 %	0.27 %	0.53 %	0.73 %	1.54 %
Total nonperforming loans not guaranteed by the U.S. government to total assets	0.39 %	0.13 %	0.27 %	0.19 %	0.47 %
Total nonperforming assets and troubled debt restructurings not guaranteed by the U.S. government to total assets	0.59 %	0.21 %	0.40 %	0.42 %	0.64 %

Total nonperforming assets and troubled debt restructurings at December 31, 2018 were $79.8 million, which represented a $52.9 million, or 197.1%, increase from December 31, 2017. Total nonperforming assets at December 31, 2018 were composed of $57.7 million in nonaccrual loans and $1.1 million of foreclosed assets. Of the $79.8 million of nonperforming assets, $58.2 million carried a government guarantee, leaving an unguaranteed exposure of $21.6 million in total nonperforming assets at December 31, 2018. The unguaranteed exposure in total nonperforming assets at December 31, 2017 was $5.7 million. Unguaranteed exposure relating to nonperforming assets at December 31, 2018 increased by $15.9 million, or 276.9%, compared to December 31, 2017.

As a percentage of the Bank’s total capital, nonperforming loans represented 14.8% at December 31, 2018, compared to 7.8% of the Bank’s total capital at December 31, 2017. It is management's belief that the greater magnitude of risk resides in the unguaranteed portion of nonperforming loans. Adjusting the ratio to include only the unguaranteed

portion of nonperforming loans as a percent of the Bank's total capital the ratios at December 31, 2018 and December 31, 2017 were 3.7% and 1.2%, respectively.

As of December 31, 2018 and 2017, potential problem loans and leases and impaired loans and leases totaled $148.0 million and $76.8 million, respectively. Risk Grades 5 through 8 represent the spectrum of criticized and impaired loans and leases. At December 31, 2018, the portion of criticized loans and leases guaranteed by the SBA or USDA totaled $69.3 million resulting in unguaranteed exposure risk of $78.7 million, or 5.1% of total held for investment unguaranteed exposure. This compares to total criticized and impaired loans and leases of $76.8 million at December 31, 2017, of which $34.7 million was guaranteed by the SBA or USDA. Loans and leases in the Healthcare, Other Industries, Independent Pharmacies and Veterinary Industry verticals comprise the largest portion of the total potential problem and impaired loans and leases at 28.0%, 18.6%, 15.5% and 15.0%, respectively. With 18.6% of total potential problem and impaired loans and leases in the Other Industries, 8.7% was related to Government Contractors and 6.8% was related to Wine and Craft Beverage industries. As of December 31, 2017, potential problem and impaired loans and leases were comprised of 30.0% and 27.3% in Healthcare and Veterinary Industry verticals, respectively. While no major systemic issues were identified in the year over year increase in potential problem and impaired loans and leases which were comprised of a relatively small number of borrowers in our more mature verticals, the Company has identified a small number of project profiles within the Healthcare and Pharmacy verticals that warranted tighter underwriting guidelines, which were implemented in 2018. The Company believes that its underwriting and credit quality standards have improved as the business has matured.

The Bank does not classify loans and leases that experience insignificant payment delays and payment shortfalls as impaired. The Bank considers an “insignificant period of time” from payment delays to be a period of 90 days or less. The Bank would consider a modification for a customer experiencing what is expected to be a short-term event that has temporarily impacted cash flow. This could be due, among other reasons, to illness, weather, impact from a one-time expense, slower than expected start-up, construction issues or other short-term issues. In all cases, credit will review the request to determine if the customer is stressed and how the event has impacted the ability of the customer to repay the loan or lease over the long term. To date, the only types of short-term modifications the Bank has given are payment deferral and interest only extensions. The Bank does not typically alter the rate or lengthen the amortization of the note due to insignificant payment delays. Short term modifications are not classified as troubled debt restructurings, or TDRs, because they do not meet the definition set by the applicable accounting standards and the Federal Deposit Insurance Corporation.

Management endeavors to be proactive in its approach to identify and resolve problem loans and leases and is focused on working with the borrowers and guarantors of these loans and leases to provide loan and lease modifications when warranted. Management implements a proactive approach to identifying and classifying loans and leases as criticized, Risk Grade 5. For example, at December 31, 2018 and 2017, Risk Grade 5 loans and leases totaled $65.5 million and $37.0 million, respectively. The increase in Risk Grade 5 loans and leases from December 31, 2017 to 2018 was composed primarily of four industries; Government Contractors ($12.1 million), Wine and Craft Beverage ($6.6 million), Agriculture ($4.9 million) and Hotels ($3.2 million); these increases were offset by decreases in Healthcare ($934 thousand) and Self Storage ($679 thousand). The majority of the Government Contracting loans downgraded to Risk Grade 5 in the first half of 2018 are asset-based, collateral intensive loans. During the second quarter of 2018, management enhanced the risk grading methodology for these types of loans. The enhanced methodology includes more robust collateral centric loss given default measures. As these loans come up for renewal and reapproval, additional servicing controls can be enhanced and appropriately measured, which is expected to improve the overall risk grades for some of these loans. This continues to be an ongoing process over the next couple of quarters. The 2018 increase in Risk Grade 5 loans related to Wine and Craft Beverage was due to the ongoing maturity of the vertical while the increase in Agriculture was related principally to an isolated issue with a single integrator impacting a small number of farms. This issue was also a primary driver in the increase of TDRs for 2018. The increase in risk grade 5 loans related to Hotels was due to project specific issues. At December 31, 2018, approximately 95.9% of loans and leases classified as Risk Grade 5 are performing with no current payments past due. While the level of nonperforming assets fluctuates in response to changing economic and market conditions, the relative size and composition of the loan and lease portfolio, and management’s degree of success in resolving problem assets, management believes that a proactive approach to early identification and intervention is critical to successfully managing a small business loan and lease portfolio.

Interest income that would have been recorded for the years ended December 31, 2018, 2017 and 2016 had nonaccrual loans and leases been current throughout the period amounted to $2.8 million, $1.1 million, and $622 thousand, respectively.

Allowance for Loan and Lease Losses

The allowance for loan and lease losses (“ALLL”), a material estimate which could change significantly in the near-term in the event of rapidly deteriorating credit quality, is established through a provision for loan and lease losses charged to earnings to account for losses that are inherent in the loan and lease portfolio and estimated to occur, and is maintained at a level that management considers appropriate to absorb losses in the loan and lease portfolio. Loan and lease losses are charged against the ALLL when management believes that the collectability of the principal loan or lease balance is unlikely. Subsequent recoveries, if any, are credited to the ALLL when received.

Judgment in determining the adequacy of the ALLL is inherently subjective as it requires estimates that are susceptible to significant revision as more information becomes available and as situations and information change.

The ALLL is evaluated on a quarterly basis by management and takes into consideration such factors as changes in the nature and volume of the loan and lease portfolio, overall portfolio quality, review of specific problem loans and leases and current economic conditions and trends that may affect borrowers' ability to repay.

Estimated credit losses should meet the criteria for accrual of a loss contingency, i.e., a provision to the ALLL, set forth in accounting principles generally accepted in the United States of America (“GAAP”). Methodology for determining the ALLL is generally based on GAAP, the Interagency Policy Statement on the Allowance for Loan and Lease Losses and other regulatory and accounting pronouncements. The ALLL is determined by the sum of three separate components: (i) the impaired loan or lease component, which addresses specific reserves for impaired loans and leases; (ii) the general reserve component, which addresses reserves for pools of homogeneous loans and leases; and (iii) an unallocated reserve component (if any) based on management’s judgment and experience. The loan and lease pools and impaired loans and leases are mutually exclusive; any loan or lease that is impaired should be excluded from its homogenous pool for purposes of that pool’s reserve calculation, regardless of the level of impairment.

The ALLL of $24.2 million at December 31, 2017 increased by $8.2 million, or 34.1%, to $32.4 million at December 31, 2018. The ALLL, as a percentage of loans and leases held for investment, amounted to 1.8% at December 31, 2018 and 1.8% at December 31, 2017. The increase in the allowance for loan and lease losses was largely attributable to continued growth in the loan and lease portfolio combined with increases in classified loans, as addressed in the Provision for Loan and Lease Losses section of Results of Operations. General reserves as a percentage of non-impaired loans and leases amounted to 1.34% at December 31, 2018 as compared to 1.62% at December 31, 2017. See the aforementioned Provision for Loan and Lease Losses section of earlier Results of Operations section of this Report for a discussion of the Company's charge-off experience.

Actual past due loans and leases have increased by $38.7 million since December 31, 2017. Of this increase, $24.4 million, or 63.1%, is 90 days or more past due with $6.1 million of that amount being comprised of unguaranteed loans and leases. At December 31, 2018 and 2017, total held for investment unguaranteed loans and leases past due as a percentage of total held for investment unguaranteed loans and leases was 1.56% and 0.43%, respectively. The majority of growth in past dues during 2018 is reflected in the earlier discussed increase in classified loans during the same period. A significant portion of past dues not included in classified loans were comprised of a single loan which returned to current status shortly after year end. Management continues to actively monitor and work to improve asset quality. Management believes the ALLL of $32.4 million at December 31, 2018 is appropriate in light of the risk inherent in the loan and lease portfolio. Management’s judgments are based on numerous assumptions about current events that it believes to be reasonable, but which may or may not be valid. Thus, there can be no assurance that loan and lease losses in future periods will not exceed the current ALLL or that future increases in the ALLL will not be required. No assurance can be given that management’s ongoing evaluation of the loan and lease portfolio in light of changing economic conditions and other relevant circumstances will not require significant future additions to the ALLL, thus adversely affecting the Company’s operating results. Additional information on the ALLL is presented in Note 5 - Loans and Leases Held for Investment and Allowance for Loan and Lease Losses to the consolidated financial statements included with this Report.

The following table sets forth the breakdown of the allowance for loan and lease losses by loan and lease category at the dates indicated.

	2018				2017				2016			
	Allowance	Total Loans and Leases	% of Total Allowance	% of Total Loans and Leases	Allowance	Total Loans and Leases	% of Total Allowance	% of Total Loans and Leases	Allowance	Total Loans and Leases	% of Total Allowance	% To Lo an
ercial strial ture	$33	$6,400	0.10 %	0.35 %	$56	$3,274	0.23 %	0.24 %	$33	$1,714	0.18 %	0.
Care ement	57	17,378	0.18	0.94	47	13,495	0.20	1.00	40	9,684	0.22	1.0
care	1,913	51,082	5.90	2.76	2,030	43,301	8.39	3.21	1,922	37,270	10.56	4.1
ndent cies	2,599	108,783	8.01	5.88	1,694	99,920	7.00	7.42	873	83,677	4.79	9.2
red nent rs	1,498	94,338	4.62	5.10	1,234	93,770	5.10	6.96	1,907	68,335	10.47	7.5
ary y	404	45,604	1.25	2.46	632	46,387	2.61	3.45	834	38,930	4.58	4.2
ies	8,058	295,163	24.84	15.95	5,058	184,903	20.91	13.73	2,804	94,836	15.40	10.
	14,562	618,748	44.90	33.44	10,751	485,050	44.44	36.01	8,413	334,446	46.20	36.
uction pment ture	244	43,454	0.76	2.35	494	34,188	2.04	2.54	635	32,372	3.49	3.5
Care ement	20	9,874	0.06	0.53	15	6,119	0.06	0.45	14	3,956	0.08	0.4
care	251	81,619	0.77	4.41	359	49,770	1.48	3.70	122	30,467	0.67	3.3
ndent cies	8	2,149	0.02	0.12	5	1,496	0.02	0.11	7	2,013	0.04	0.2
red nent rs	2	1,232	0.01	0.07	1	376	0.01	0.03	6	294	0.03	0.0
ary y	63	14,094	0.19	0.76	46	13,184	0.19	0.98	59	11,514	0.32	1.2
ies	1,454	96,482	4.49	5.21	1,110	58,120	4.59	4.32	850	31,715	4.67	3.4
	2,042	248,904	6.30	13.45	2,030	163,253	8.39	12.13	1,693	112,331	9.30	12.

ercial state												
ture	250	53,085	0.77	2.87	484	46,717	2.00	3.47	108	5,591	0.59	0.6
Care ement	345	71,344	1.06	3.85	612	67,381	2.53	5.00	410	52,510	2.25	5.7
care	1,995	188,531	6.15	10.19	1,128	126,631	4.67	9.40	693	114,281	3.81	12.
ndent cies	827	20,597	2.55	1.11	425	19,028	1.76	1.41	434	15,151	2.38	1.6
red nent rs	24	7,905	0.07	0.43	50	11,789	0.21	0.88	220	11,462	1.21	1.2
ary y	2,200	136,721	6.78	7.39	2,470	113,932	10.21	8.46	2,230	102,906	12.25	11.
ies	5,403	260,847	16.66	14.10	4,011	134,172	16.58	9.96	1,802	46,245	9.90	5.0
	11,044	739,030	34.04	39.94	9,180	519,650	37.96	38.58	5,897	348,146	32.39	38.
ercial												
ture	4,786	243,798	14.76	13.17	2,229	178,897	9.21	13.28	2,206	113,569	12.11	12.
	4,786	243,798	14.76	13.17	2,229	178,897	9.21	13.28	2,206	113,569	12.11	12.
	$32,434	$1,850,480	100.00%	100.00%	$24,190	$1,346,850	100.00%	100.00%	$18,209	$908,492	100.00%	10

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	2015				2014			
	Allowance	Total Loans and Leases	% of Total Allowance	% of Total Loans and Leases	Allowance	Total Loans and Leases	% of Total Allowance	% of Total Loans and Leases
Commercial & Industrial								
Agriculture	$5	$30	0.07 %	0.01 %	$—	$—	— %	— %
Death Care Management	31	4,832	0.42	1.72	2	3,603	0.05	1.77
Healthcare	684	15,240	9.22	5.44	875	12,319	19.85	6.06
Independent Pharmacies	724	41,588	9.76	14.86	336	34,079	7.62	16.75
Registered Investment Advisors	220	18,358	2.97	6.56	7	9,660	0.16	4.75
Veterinary Industry	555	21,579	7.48	7.71	114	20,902	2.59	10.27
Other Industries	547	3,230	7.38	1.15	35	494	0.79	0.24
Total	2,766	104,857	37.30	37.45	1,369	81,057	31.06	39.84
Construction & Development								
Agriculture	811	11,351	10.94	4.05	362	3,910	8.21	1.92
Death Care Management	9	769	0.12	0.27	1	92	0.02	0.05
Healthcare	152	7,231	2.05	2.58	145	2,957	3.29	1.45
Independent Pharmacies	1	101	0.01	0.04	4	215	0.09	0.11
Registered Investment Advisors	7	378	0.09	0.14	—	—	—	—
Veterinary Industry	29	3,834	0.39	1.37	27	2,207	0.61	1.09
Other Industries	55	658	0.74	0.24	47	145	1.07	0.07
Total	1,064	24,322	14.34	8.69	586	9,526	13.29	4.69
Commercial Real Estate								
Agriculture	129	1,863	1.74	0.67	25	259	0.57	0.13
Death Care Management	99	20,327	1.34	7.26	77	18,879	1.75	9.28
Healthcare	561	37,684	7.57	13.46	794	26,173	18.02	12.86
Independent Pharmacies	33	7,298	0.45	2.61	32	4,750	0.73	2.33
Registered Investment Advisors	30	2,808	0.40	1.00	—	2,161	—	1.06
Veterinary Industry	1,302	59,999	17.56	21.43	1,122	57,934	25.46	28.48
Other Industries	332	4,752	4.48	1.70	241	1,464	5.47	0.72
Total	2,486	134,731	33.54	48.13	2,291	111,620	52.00	54.86
Commercial Land								
Agriculture	1,099	16,036	14.82	5.73	161	1,248	3.65	0.61
Total	1,099	16,036	14.82	5.73	161	1,248	3.65	0.61
Total	$7,415	$279,946	100.00 %	100.00%	$4,407	$203,451	100.00 %	100.00%

Analysis of Loan and Lease Loss Experience. The following table sets forth an analysis of the allowance for loan and lease losses for the years indicated.

	2018	2017	2016	2015	2014
Allowance for Loan and Lease Losses:					
Beginning Balance	$24,190	$18,209	$7,415	$4,407	$2,723
Provision	13,058	9,536	12,536	3,806	2,793
Charge-offs:					
Commercial & Industrial					
Healthcare	(599)	(1,367)	(1,137)	(44)	(209)
Independent Pharmacies	(2,296)	(882)	(6)	(274)	(294)
Registered Investment Advisors	(526)	(236)	—	—	—
Veterinary Industry	(50)	(132)	(321)	(660)	(195)
Other Industries	(744)	—	—	—	—
Total	(4,215)	(2,617)	(1,464)	(978)	(698)
Commercial Real Estate					
Death Care Management	—	—	—	—	(135)
Healthcare	(19)	(14)	—	(29)	(25)
Independent Pharmacies	(403)	(541)	—	—	—
Veterinary Industry	(619)	(622)	(707)	(135)	(263)
Other Industries	—	—	—	—	(92)
Total	(1,041)	(1,177)	(707)	(164)	(515)
Commercial Land					
Agriculture	(241)	(58)	(63)	—	—
Total	(241)	(58)	(63)	—	—
Total charge-offs	(5,497)	(3,852)	(2,234)	(1,142)	(1,213)
Recoveries:					
Commercial & Industrial					
Healthcare	161	79	104	126	17
Independent Pharmacies	181	3	40	70	—
Registered Investment Advisors	30	—	—	—	—
Veterinary Industry	40	19	342	17	15
Other Industries	81	—	—	—	—
Total	493	101	486	213	32
Commercial Real Estate					
Healthcare	14	—	—	—	—
Independent Pharmacies	—	170	—	—	—
Veterinary Industry	176	21	6	131	72
Total	190	191	6	131	72
Commercial Land					
Agriculture	—	5	—	—	—
Total	—	5	—	—	—
Total recoveries	683	297	492	344	104
Ending Balance	$32,434	$24,190	$18,209	$7,415	$4,407

Investment Securities

Investment securities totaled $380.5 million at December 31, 2018, an increase of $287.1 million, or 307.6%, compared to $93.4 million at December 31, 2017. The large increase in the investment portfolio for 2018 was primarily related to a strategic initiative to enhance the Company's contingent funding sources and included purchases of $23.2 million in mortgage-backed securities for purposes of complying with the Community Reinvestment Act and purchases of $303.4 million in mortgage-backed securities to increase cashflow and yield. In addition, the Company purchased $14.6 million in US government agencies and $5.0 million in US treasury securities. There was also a $1.0 million loan to a municipality classified and recorded under GAAP as a municipal bond investment during 2018.

The investment securities portfolio consists entirely of available-for-sale securities. The Company purchases securities for the investment securities portfolio to manage interest rate risk, ensure a stable source of liquidity and to provide a steady source of income in excess of cost of funds.

The following table sets forth the amortized cost and fair values of the securities portfolio at the dates indicated.

	2018		2017		2016	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value
US treasury securities	$4,969	$4,966	$—	$—	$—	$—
US government agencies	31,121	30,944	22,778	22,624	17,803	17,823
Residential mortgage-backed securities	345,606	343,581	70,167	68,696	52,301	51,273
Mutual fund	—	—	2,090	2,035	2,012	1,960
Municipal bond	1,000	999	—	—	—	—
Total securities	$382,696	$380,490	$95,035	$93,355	$72,116	$71,056

The $380.5 million of US treasury securities, US government agencies, residential mortgage-backed securities and municipal bond in the investment portfolio as of December 31, 2018 was spread across nine different issuers. There are 86 unique securities that have an average fair value of $4.4 million, with the largest single security having a fair value of $9.5 million as of December 31, 2018.

At December 31, 2018, the duration of the overall available-for-sale securities portfolio was approximately 5.62 years.

The following table sets forth the stated maturities and weighted average yields of investment securities at December 31, 2018. Certain mortgage related securities have adjustable interest rates and will reprice annually within the various maturity ranges. These repricing schedules are not reflected in the tables below.

			After One		After Five			
	Within One Year		to Five Years		to Ten Years		After Ten Years	
Total Amortized Cost	Amortized Cost	Average Yield	Amortized Cost	Average Yield	Amortized Cost	Average Yield	Amortized Cost	Average Yield

US treasury securities	$4,969	$—	—	%	$4,969	2.13	%	$—	—	%	$—	—	%
US government securities	31,121	3,968	0.52		27,153	2.41		—	—		—	—	
Residential mortgage-backed securities	345,606	—	—		3,424	2.21		48,088	2.71		294,094	3.14	
Municipal bond	1,000	—	—		—	—		—	—		1,000	5.22	
Total securities	$382,696	$3,968	0.52	%	$35,546	2.35	%	$48,088	2.71	%	$295,094	3.15	%

Issuers Exceeding Ten Percent of Shareholders' Equity

	December 31, 2018	
	Amortized Cost	Fair Value
Federal Home Loan Mortgage Corporation	$76,814	$76,995
Federal National Mortgage Association	254,779	253,614

Deposits

The following table sets forth the composition of deposits.

	2018		2017		2016	
	Total	Percent	Total	Percent	Total	Percent
Period end:						
Noninterest-bearing demand deposits	$53,993	1.71 %	$57,868	2.56 %	$27,990	1.88 %
Interest-bearing deposits:						
Interest-bearing checking	2,099	0.07	36,978	1.64	27,402	1.85
Money market	89,329	2.84	188,146	8.32	489,978	32.99
Savings	886,718	28.15	696,989	30.84	—	—
Time deposits	2,117,444	67.23	1,280,282	56.64	939,706	63.28
Total	3,095,590	98.29 %	2,202,395	97.44 %	1,457,086	98.12 %
Total period end deposits	$3,149,583	100.00%	$2,260,263	100.00%	$1,485,076	100.00%

	2018			2017			2016		
	Total	Percent	Average Rate	Total	Percent	Average Rate	Total	Percent	Average Rate
Average:									
Noninterest-bearing demand deposits	$50,580	1.75 %	— %	$40,831	2.21 %	— %	$21,665	1.84 %	— %
Interest-bearing deposits:									
Interest-bearing checking	32,792	1.14	1.04	39,213	2.12	0.65	20,410	1.73	0.57
Money market	131,495	4.55	1.10	413,648	22.38	0.98	423,035	35.93	0.76
Savings	911,757	31.56	1.68	193,083	10.45	1.39	—	—	—
Time deposits	1,761,948	61.00	2.12	1,161,651	62.84	1.48	712,327	60.50	1.45
Total average deposits	$2,888,572	100.00%	1.92%	$1,848,426	100.00%	1.34%	$1,177,437	100.00%	1.18%

Deposits increased to $3.15 billion at December 31, 2018 from $2.26 billion at December 31, 2017, an increase of $889.3 million, or 39.3%. This increase was primarily due to the growth of the Company's customer base in the savings and time deposit products, enhanced by a nationwide marketing campaign with attractive rates and additional long-term wholesale funding. The $34.9 million decrease in interest-bearing checking and $98.8 million decrease in money market deposits was related to the wind-down of the Company's trust operations and a planned decrease of wholesale money market funds, respectively, during 2018. Noninterest-bearing deposits decreased $3.9 million, or 6.7%, during this period, and interest-bearing deposits increased $893.2 million, or 40.6%, during the same period. The growth in accounts during 2017 was primarily in savings and time deposits, although noninterest-bearing checking increased significantly, primarily through increased trust account deposits. Long-term wholesale funding contributed to the time deposit increases.

At December 31, 2018, the aggregate balance of time deposit accounts individually equal to or greater than $100 thousand totaled $1.2 billion. At December 31, 2018, 82.0% of time deposit accounts in amounts equal to or greater than $100 thousand were scheduled to mature within one year. The maturity profile of time deposits at December 31, 2018 is as follows:

Maturity Period	Three months or less	More than three months to six months	More than six months to twelve months	More than twelve months
Time deposits, $100,000 and over	$343,273	$257,771	$389,356	$216,694
Other time deposits	90,049	103,110	257,092	460,099
Total time deposits	$433,322	$360,881	$646,448	$676,793

Borrowings

Total long-term borrowings decreased $26.5 million at December 31, 2018 from December 31, 2017, and total short-term borrowing increased $1.4 million at December 31, 2018 from December 31, 2017, as a result of the following:

On September 11, 2014, the Company financed the construction of an additional building located on the Company's Tiburon Drive campus using a $24.0 million construction line of credit with an unaffiliated commercial bank, secured by both properties at its Tiburon Drive main office location. At December 31, 2017, the construction line was fully advanced with $23.0 million outstanding on the construction line of credit. Payments were interest only through September 11, 2016 at a fixed rate of 3.95% for a term of 84 months. Monthly principal and interest payments of $146 thousand began in October 2016 with all principal and accrued interest due on September 11, 2021. This note was repaid in full on January 31, 2018.

On September 18, 2014, the Company entered into a revolving line of credit of $8.1 million with an unaffiliated commercial bank. On April 18, 2017, the company renewed and increased the revolving line of credit to $25.0 million, with no outstanding balance at December 31, 2017. The line of credit is unsecured and accrues interest at prime minus 0.50% for a term of 24 months. Payments are interest only with all principal and accrued interest due on April 30, 2019. The terms of this loan require the Company to maintain minimum capital, liquidity and Texas ratios. There is $25.0 million of remaining available credit on this line of credit at December 31, 2018.

On February 23, 2015 the Company transferred two related party loans to an unaffiliated commercial bank in exchange for $4.7 million. The exchange price equated to the unpaid principal balance plus accrued but uncollected interest at the time of transfer. The terms of the transfer agreement with the unaffiliated commercial bank identified the transaction as a secured borrowing for accounting purposes. Interest accrues at prime plus 1% with monthly principal and interest payments over a term of 60 months. The interest rate at December 31, 2018 was 6.25%. One of the loans with an outstanding balance of $1.3 million was paid in full on August 17, 2018. The remaining repayment term caused the unpaid loan balance to be transferred from long-term to short-term borrowings as of December 31, 2018. The maturity date is October 5, 2019. The pledged collateral is classified in other assets with a fair value of $1.4 million at December 31, 2018. The underlying loan carries a Risk Grade of 3 and is current with no delinquency.

On October 20, 2017, the Company entered into a revolving line of credit of $20.0 million with an unaffiliated commercial bank. On October 2, 2018, the Company renewed the $20.0 million revolving line of credit. The line of credit is unsecured and accrues interest at 30-day LIBOR plus 1.750% for a term of 12 months. Payments are interest only with all principal and accrued interest due on October 18, 2019. The terms of this loan require the Company to maintain minimum capital and debt service coverage ratios. There is no outstanding balance and $20.0 million of available credit is remaining on this line of credit at December 31, 2018.

In October 2017, the Company entered into a capital lease of $19 thousand with an unaffiliated equipment lease company, secured by fitness equipment which is included in premises and equipment on the consolidated balance sheet. Payments are principal and interest due monthly starting December 15, 2017 over a term of 60 months. At the end of the lease term there is a $1.00 bargain purchase option.

Liquidity Management

Liquidity management refers to the ability to meet day-to-day cash flow requirements based primarily on activity in loan and deposit accounts of the Company's customers. Liquidity is immediately available from four major sources: (a) cash on hand and on deposit at other banks; (b) the outstanding balance of federal funds sold; (c) the market value of unpledged investment securities; and (d) availability under lines of credit. A primary tool in the Company's liquidity

management process is the utilization of a Volatile Liability Analysis (“VLA”) model to stress outflows in various scenarios with targeted days of liquidity coverage. The VLA model output is then used by management to ensure adequate liquidity sources are available during those future periods. At December 31, 2018, the total amount of these four liquidity source items was $1.04 billion, or 28.4% of total assets, an increase of 4.0% of total assets from $674.2 million, or 24.4% of total assets, at December 31, 2017.

Loans and other assets are funded primarily by loan sales, wholesale deposits and core deposits. To date, an increasing retail deposit base and a stable amount of brokered deposits have been adequate to meet loan obligations, while maintaining the desired level of immediate liquidity. Additionally, an investment securities portfolio is available for both immediate and secondary liquidity purposes.

At December 31, 2018, none of the investment securities portfolio was pledged to secure public deposits or pledged to retail repurchase agreements, while $2.5 million was pledged for uninsured trust assets and $100 thousand was pledged for trust activities in the State of Ohio, leaving $377.9 million available to be pledged as collateral.

Asset/Liability Management and Interest Rate Sensitivity

One of the primary objectives of asset/liability management is to maximize the net interest margin while minimizing the earnings risk associated with changes in interest rates. One method used to manage interest rate sensitivity is to measure, over various time periods, the interest rate sensitivity positions, or gaps. This method, however, addresses only the magnitude of timing differences and does not address earnings or market value. Therefore, management uses an earnings simulation model to prepare, on a regular basis, earnings projections based on a range of interest rate scenarios to more accurately measure interest rate risk. For more information, see Item 7A of this Report.

The Company's balance sheet is asset-sensitive with a total cumulative gap position of 1.50% at December 31, 2018. During the year ending December 31, 2018, the addition of a large volume of fixed rate investments along with the production of variable rate loans and leases outpaced the growth of variable deposits. An asset-sensitive position means that net interest income will generally move in the same direction as interest rates. For instance, if interest rates increase, net interest income can be expected to increase, and if interest rates decrease, net interest income can be expected to decrease. The Company attempts to mitigate interest rate risk with the majority of assets and liabilities being short-term, adjustable rate instruments. The quarterly revaluation adjustment to the servicing asset, however, adjusts in an opposite direction to interest rate changes. Asset/liability sensitivity is primarily derived from the prime-based loans that adjust as the prime interest rate changes in conjunction with the longer duration of indeterminate term deposits.

Capital

The maintenance of appropriate levels of capital is a management priority and is monitored on a regular basis. The Company's principal goals related to the maintenance of capital are to provide adequate capital to support the Company's risk profile consistent with the risk appetite approved by the Board of Directors; provide financial flexibility to support future growth and client needs; comply with relevant laws, regulations, and supervisory guidance; achieve optimal credit ratings for the Company and its subsidiaries; and provide a competitive return to shareholders. Management regularly monitors the capital position of the Company on both a consolidated and Bank level basis. In this regard, management's goal is to maintain capital at levels that are in excess of the regulatory "well capitalized" levels. Risk-based capital ratios, which include Tier 1 Capital, Total Capital and Common Equity Tier 1 Capital, are calculated based on regulatory guidance related to the measurement of capital and risk-weighted assets.

Capital amounts and ratios as of December 31, 2018, 2017 and 2016 are presented in the table below.

	Actual		Minimum Capital Requirement		Minimum To Be Well Capitalized Under Prompt Corrective Action Provisions (1)	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
Consolidated - December 31, 2018						
Common Equity Tier 1 (to Risk-Weighted Assets)	$467,033	17.10%	$122,937	4.50%	N/A	N/A
Total Capital (to Risk-Weighted Assets)	$499,467	18.28%	$218,555	8.00%	N/A	N/A
Tier 1 Capital (to Risk-Weighted Assets)	$467,033	17.10%	$163,917	6.00%	N/A	N/A
Tier 1 Capital (to Average Assets)	$467,033	13.40%	$139,453	4.00%	N/A	N/A
Bank - December 31, 2018						
Common Equity Tier 1 (to Risk-Weighted Assets)	$385,030	14.35%	$120,706	4.50%	$174,353	6.50 %
Total Capital (to Risk-Weighted Assets)	$417,609	15.57%	$214,588	8.00%	$268,235	10.00%
Tier 1 Capital (to Risk-Weighted Assets)	$385,030	14.35%	$160,941	6.00%	$214,588	8.00 %
Tier 1 Capital (to Average Assets)	$385,030	11.22%	$137,304	4.00%	$171,630	5.00 %
Consolidated - December 31, 2017						
Common Equity Tier 1 (to Risk-Weighted Assets)	$390,816	17.81%	$98,764	4.50%	N/A	N/A
Total Capital (to Risk-Weighted Assets)	$415,006	18.91%	$175,580	8.00%	N/A	N/A
Tier 1 Capital (to Risk-Weighted Assets)	$390,816	17.81%	$131,685	6.00%	N/A	N/A
Tier 1 Capital (to Average Assets)	$390,816	15.50%	$100,828	4.00%	N/A	N/A
Bank - December 31, 2017						
Common Equity Tier 1 (to Risk-Weighted Assets)	$277,943	12.89%	$97,060	4.50%	$140,197	6.50 %
Total Capital (to Risk-Weighted Assets)	$302,385	14.02%	$172,551	8.00%	$215,688	10.00%
Tier 1 Capital (to Risk-Weighted Assets)	$277,943	12.89%	$129,413	6.00%	$172,551	8.00 %
Tier 1 Capital (to Average Assets)	$277,943	11.36%	$97,864	4.00%	$122,330	5.00 %
Consolidated - December 31, 2016						
Common Equity Tier 1 (to Risk-Weighted Assets)	$206,670	15.31%	$60,732	4.50%	N/A	N/A
Total Capital (to Risk-Weighted Assets)	$223,559	16.56%	$107,968	8.00%	N/A	N/A

Tier 1 Capital (to Risk-Weighted Assets)	$206,670	15.31%	$80,976	6.00%	N/A	N/A
Tier 1 Capital (to Average Assets)	$206,670	12.00%	$68,919	4.00%	N/A	N/A
Bank - December 31, 2016						
Common Equity Tier 1 (to Risk-Weighted Assets)	$139,078	10.68%	$58,579	4.50%	$84,615	6.50 %
Total Capital (to Risk-Weighted Assets)	$155,423	11.94%	$104,141	8.00%	$130,177	10.00%
Tier 1 Capital (to Risk-Weighted Assets)	$139,078	10.68%	$78,106	6.00%	$104,141	8.00 %
Tier 1 Capital (to Average Assets)	$139,078	8.41 %	$66,142	4.00%	$82,678	5.00 %

(1) Prompt corrective action provisions are not applicable at the bank holding company level.

Contractual Obligations

The following table presents the Company's significant fixed and determinable contractual obligations by payment date as of December 31, 2018. The payment amounts represent those amounts contractually due to the recipient. The table excludes liabilities recorded where management cannot reasonably estimate the timing of any payments that may be required in connection with these liabilities.

	Payments Due by Period				
	Total	Less than One Year	One to Three Years	Three to Five Years	More Than Five Years
Contractual Obligations					
Deposits without stated maturity	$1,032,139	$1,032,139	$—	$—	$—
Time deposits	2,117,444	1,440,651	547,847	63,928	65,018
Short term borrowings	1,441	1,441	—	—	—
Long term borrowings	16	4	8	4	—
Operating lease obligations	2,422	1,068	828	419	107
Total	$3,153,462	$2,475,303	$548,683	$64,351	$65,125

As of December 31, 2018 and 2017, the Company had commitments for on-balance sheet instruments in the amount of $2.8 million and $3.5 million, respectively.

Off-Balance Sheet Arrangements

In the normal course of operations, the Company engages in a variety of financial transactions that, in accordance with accounting principles generally accepted in the United States of America, are not recorded in the consolidated financial statements. These transactions involve, to varying degrees, elements of credit, interest rate and liquidity risk. Such transactions are used primarily to manage customers' requests for funding and take the form of loan or investment commitments, lines of credit and letters of credit.

The contractual amounts of commitments to extend credit represent the amounts of potential accounting loss should the contract be fully drawn upon, the customer defaults and any existing collateral has no value. The Company uses the same credit policies in making commitments and conditional obligations as the Company does for on-balance sheet instruments. Financial instruments whose contract amounts represent credit risk at December 31, 2018, 2017 and 2016 are as follows:

	2018	2017	2016
Commitments to extend credit (1)	$1,435,024	$1,701,137	$1,342,271
Standby letters of credit	2,150	2,298	343
Solar purchase commitments	—	106,921	—
Airplane purchase agreement commitments	10,450	25,450	21,500
Total commitments	$1,447,624	$1,835,806	$1,364,114

(1) 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 may require payment of a fee and generally have fixed expiration dates or other termination clauses.

Critical Accounting Policies and Estimates

The preparation of consolidated financial statements in accordance with GAAP requires the Company to make estimates and judgments that affect reported amounts of assets, liabilities, income and expenses and related disclosure of contingent assets and liabilities. The Company bases estimates on historical experience and on various other assumptions that are believed to be reasonable under current circumstances, results of which form the basis for making judgments about the carrying value of certain assets and liabilities that are not readily available from other sources. Estimates are evaluated on an ongoing basis. Actual results may differ from these estimates under different assumptions or conditions.

Accounting policies, as described in detail in the notes to the Company's consolidated financial statements, are an integral part of the Company's consolidated financial statements. A thorough understanding of these accounting policies is essential when reviewing the Company's reported results of operations and financial position. Management believes that the critical accounting policies and estimates listed below require the Company to make difficult, subjective or complex judgments about matters that are inherently uncertain.

- Determination of the allowance for loan and lease losses;
- Valuation of servicing assets;
- Income taxes;
- Restricted stock unit awards with market price conditions;
- Valuation of foreclosed assets;
- Business combinations and goodwill; and
- Unconsolidated joint ventures.

Changes in these estimates that are likely to occur from period to period, or the use of different estimates that the Company could have reasonably used in the current period, would have a material impact on the Company's financial position, results of operations or liquidity.

Non-GAAP Measures

Some of the financial measures included in our selected historical consolidated financial data and elsewhere in this Annual Report are not measures of financial performance recognized by GAAP. These non-GAAP financial measures are: "tangible shareholders' equity;" "tangible assets;" "tangible shareholders' equity to tangible assets;" "tangible book value per share;" "efficiency ratio;" "non-GAAP net income;" "noninterest income, as adjusted;" "provision for loan and lease losses, as adjusted;" "noninterest expense, as adjusted;" "income before tax, as adjusted;" and "income tax expense, as adjusted." Management uses these non-GAAP financial measures in its analysis of the Company's performance.

- "Tangible shareholders' equity" is total shareholders' equity less goodwill and other intangible assets. Management has not considered loan servicing rights as an intangible asset for purposes of this calculation.
- "Tangible assets" is total assets less goodwill and other intangible assets. Management has not considered loan servicing rights as an intangible asset for purposes of this calculation.
- "Tangible shareholders' equity to tangible assets" is defined as the ratio of shareholders' equity less goodwill and other intangible assets, divided by total assets less goodwill and other intangible assets. Management believes this measure is important because it shows relative changes from period to period in equity and total assets, each exclusive of changes in intangible assets. Management has not considered loan servicing rights as an intangible asset for purposes of this calculation.
- "Tangible book value per share" is defined as total equity reduced by goodwill and other intangible assets divided by total common shares outstanding. Management believes this measure is important because it shows changes from period to period in book value per share exclusive of changes in intangible assets. Management has not considered loan servicing rights as an intangible asset for purposes of this calculation.
- "Efficiency ratio" is defined as total noninterest expense divided by the sum of net interest income and noninterest income less gain (loss) on sale of securities. Management believes this measure is important as an indicator of productivity because it shows the amount of noninterest expense that was required to generate a dollar of revenue. While the efficiency ratio is a measure of productivity, its value reflects the unique attributes of the "high-touch business model" the Company employs.

- “Non-GAAP net income” is defined as net income adjusted to exclude significant non-routine sources of income and uses of expenses and an estimated corporate income tax expense across all periods being compared. Management believes these measures are important as they allow for an evaluation of the core profitability of the Company's business.
- “Noninterest income, as adjusted” is defined as noninterest income adjusted to exclude significant non-routine sources of income, including the gain on contribution to equity method investment and a loss associated with the 2016 renewable energy tax credit investment. Management believes these measures are important as they allow for an evaluation of the core profitability of the Company's business.
- "Provision for loan and lease losses, as adjusted" is defined as provision for loan and lease losses adjusted to exclude significant non-routine sources of provision, including provision for loans reclassified from held for sale to held for investment. Management believes these measures are important as they allow for an evaluation of the core profitability of the Company's business.
- “Noninterest expense, as adjusted” is defined as noninterest expense adjusted to exclude significant non-routine sources of expenses, including stock-based compensation expense of restricted stock awards for key employee retention with an effective date of May 24, 2016, merger costs associated with the Reltco acquisition and Apiture investment, trade-in loss on an aircraft and a contract modification for Reltco. Other non-routine sources of noninterest expense included impairments of: an aircraft held for sale, goodwill and other intangibles and the 2016 renewable energy tax credit investment. Management believes these measures are important as they allow for an evaluation of the core profitability of the Company's business.
- “Income before taxes, as adjusted” is defined as income before taxes adjusted to exclude significant non-routine sources of income and uses of expenses as discussed above. Management believes these measures are important as they allow for an evaluation of the core profitability of the Company's business.
- “Income tax (benefit) expense, as adjusted” is defined as income tax expense adjusted to exclude significant non-routine sources of expense or income, as discussed above, the impact of revaluing the Company's net deferred tax liability as a result of reduced federal tax rates arising from the December 22, 2017 Tax Act legislation, other renewable energy tax expense and renewable energy tax credits arising from the 2016 investment. Management believes these measures are important as they allow for an evaluation of the core profitability of the Company's business.

The Company believes these non-GAAP financial measures provide useful information to management and investors that is supplementary to the financial condition, results of operations and cash flows computed in accordance with GAAP; however, the Company acknowledges that non-GAAP financial measures have a number of limitations. As such, you should not view these measures as a substitute for results determined in accordance with GAAP, and they are not necessarily comparable to non-GAAP financial measures that other companies use. The following table provides a reconciliation of these non-GAAP financial measures to the most closely related GAAP measure.

	Years Ended December 31,		
	2018	2017	2016
Total shareholders' equity	$493,560	$436,933	$222,847
Less:			
Goodwill	—	—	—
Other intangible assets	—	4,264	—
Tangible shareholders' equity (a)	$493,560	$432,669	$222,847
Shares outstanding (c)	40,155,792	39,895,583	34,253,602
Total assets	$3,670,449	$2,758,474	$1,755,261
Less:			
Goodwill	—	—	—
Other intangible assets	—	4,264	—
Tangible assets (b)	$3,670,449	$2,754,210	$1,755,261
Tangible shareholders' equity to tangible assets (a/b)	13.45 %	15.71 %	12.70 %
Tangible book value per share (a/c)	$12.29	$10.85	$6.51
Efficiency ratio:			
Noninterest expense (d)	$152,704	$143,165	$106,445
Net interest income	108,043	78,034	42,649
Noninterest income	103,765	172,921	93,539
Less: gain on sale of securities	—	—	1
Adjusted operating revenue (e)	$211,808	$250,955	$136,187
Efficiency ratio (d/e)	72.10 %	57.05 %	78.16 %

	Years Ended December 31,		
	2018	2017	2016
Reconciliation of net income to non-GAAP net income adjusted for non-routine income and expenses:			
Net income attributable to Live Oak Bancshares, Inc.	$51,448	$100,499	$13,773
Provision for loans reclassified as held for investment	—	—	4,023
Gain on contribution to equity method investment	—	(68,000)	—
Stock based compensation expense for restricted stock awards with an effective date of May 24, 2016, as discussed in Note 10 of the Notes to Unaudited Consolidated Financial Statements included in our March 31, 2016 Form 10-Q	1,429	1,370	8,973
Merger costs associated with Reltco acquisition and Apiture investment	—	2,874	—
Trade-in loss on aircraft	—	206	—
Impairment charge taken on aircraft held for sale	—	—	1,422
Impairment expense on goodwill and other intangibles	2,680	3,648	—
Contract modification of Reltco	—	1,600	—
Renewable energy tax credit investment income, impairment and loss	—	690	3,239
Income tax effects and adjustments for non-GAAP items*	(986)	23,045	(7,062)
Deferred tax liability revaluation	—	(18,921)	—
Other renewable energy tax expense	—	176	176
Renewable energy tax credit	—	—	(4,396)
Non-GAAP net income	$54,571	$47,187	$20,148
*Estimated at 24.0% for 2018 and 40.0% for 2017 and 2016			
Earnings per share:			
Basic	$1.36	$1.29	$0.59
Diluted	$1.32	$1.25	$0.57
Weighted-average shares outstanding:			
Basic	40,056,230	36,592,893	34,202,168
Diluted	41,446,750	37,859,535	35,086,959
Reconciliation of financial statement line items as reported to adjusted for non-routine income and expenses:			
Noninterest income, as reported	$103,765	$172,921	$93,539
Gain on contribution to equity method investment	—	(68,000)	—
Renewable energy tax credit investment loss	—	—	42
Noninterest income, as adjusted	103,765	104,921	93,581
Provision for loan and lease losses, as reported	13,058	9,536	12,536
Provision for loans reclassified as held for investment	—	—	(4,023)
Provision for loan and lease losses, as adjusted	13,058	9,536	8,513
Noninterest expense, as reported	152,704	143,165	106,445

Stock based compensation expense	(1,429)	(1,370)	(8,973)
Merger costs associated with Reltco acquisition and Apiture investment	—	(2,874)	—
Trade-in loss on aircraft	—	(206)	—
Impairment charge taken on aircraft held for sale	—	—	(1,422)
Impairment expense on goodwill and other intangibles	(2,680)	(3,648)	—
Contract modification of Reltco	—	(1,600)	—
Renewable energy tax credit investment impairment and loss	—	(690)	(3,197)
Noninterest expense, as adjusted	148,595	132,777	92,853
Income before taxes, as reported	46,046	98,254	17,207
Gain on contribution to equity method investment	—	(68,000)	—
Renewable energy tax credit investment loss	—	—	42
Provision for loans reclassified as held for investment	—	—	4,023
Stock based compensation expense	1,429	1,370	8,973
Merger costs associated with Reltco acquisition and Apiture investment	—	2,874	—
Trade-in loss on aircraft	—	206	—
Impairment charge taken on aircraft held for sale	—	—	1,422
Impairment expense on goodwill and other intangibles, net	2,680	3,648	—
Contract modification of Reltco	—	1,600	—
Renewable energy tax credit investment impairment and loss	—	690	3,197
Income before taxes, as adjusted	50,155	40,642	34,864
Income tax (benefit) expense, as reported	(5,402)	(2,245)	3,443
Income tax effects and adjustment for non-routine income and expenses	986	(23,045)	7,062
Deferred tax liability revaluation	—	18,921	—
Other renewable energy tax expense	—	(176)	(176)
Renewable energy tax credit	—	—	4,396
Income tax (benefit) expense, as adjusted	$(4,416)	$(6,545)	$14,725

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest rate risk is a significant market risk and can result from timing and volume differences in the repricing of rate-sensitive assets and liabilities, widening or tightening of credit spreads, changes in the general level of market interest rates and changes in the shape and level of market yield curves. The Company manages the interest rate sensitivity of interest-bearing liabilities and interest-earning assets in an effort to minimize the adverse effects of changes in the interest rate environment. Management of interest rate risk is carried out primarily through strategies involving available-for-sale securities, loan and lease portfolio, and available funding sources.

The Company has a total cumulative gap in interest-earning assets and interest-bearing liabilities of 1.50% as of December 31, 2018, indicating that, overall, assets will reprice before liabilities. The majority of both the Company's loans and leases and deposits have short-term repricing capabilities. The Company has a funding model which differs from that of traditional banks. A significant portion of the Company's revenue is attributable to non-interest income so the Company is less dependent on net interest income when compared to a traditional bank model. With the strategic decision to hold more loans, net interest income continues to grow. The Company does not have the traditional bank branch network and can operate with lower overhead costs to offset the higher cost of funds used to attract deposits.

The Company has an Asset/Liability Committee to communicate, coordinate and control all aspects involving interest rate risk management. The Asset/Liability Committee, which includes four members of our board of directors, establishes and monitors the volume, maturities, pricing and mix of assets and funding sources with the objective of managing assets and funding sources to provide results that are consistent with liquidity, growth, risk limits and profitability goals. Adherence to relevant policies is monitored on an ongoing basis by the Asset/Liability Committee.

The matching of assets and liabilities may be analyzed by examining the extent to which such assets and liabilities are "interest rate sensitive." An asset or liability is said to be interest rate sensitive within a specific time period if it will mature or reprice within that time period. The Company analyzes interest rate sensitivity position to manage the risk associated with interest rate movements through the use of two simulation models: economic value of equity, or EVE, and net interest income, or NII, simulations. The EVE simulation provides a long-term view of interest rate risk because it analyzes all of the Bank's future cash flows. EVE is defined as the present value of the Bank's assets, less the present value of its liabilities, adjusted for any off-balance sheet items. The results show a theoretical change in the economic value of shareholders' equity as interest rates change.

EVE and NII simulations are completed quarterly and presented to the Asset/Liability Committee. The simulations provide an estimate of the impact of changes in interest rates on equity and net interest income under a range of assumptions. The numerous assumptions used in the simulation process are reviewed by the Asset/Liability Committee on a quarterly basis. Changes to these assumptions can significantly affect the results of the simulation. The simulation incorporates assumptions regarding the potential timing in the repricing of certain assets and liabilities when market rates change and the changes in spreads between different market rates. The simulation analysis incorporates management's current assessment of the risk that pricing margins will change adversely over time due to competition or other factors.

Simulation analysis is only an estimate of interest rate risk exposure at a particular point in time. The Company continually reviews the potential effect changes in interest rates could have on the repayment of rate sensitive assets and funding requirements of rate sensitive liabilities.

The table below sets forth an approximation of the Company's NII sensitivity exposure for the 12-month periods ending December 31, 2019 and 2020 and the Company's EVE sensitivity at December 31, 2018. The simulation uses projected repricing of assets and liabilities at December 31, 2018 on the basis of contractual maturities, anticipated repayments and scheduled rate adjustments. Prepayment rates can have a significant impact on interest income simulation. Because of the large percentage of variable rate loans and mortgage-backed securities the Company holds,

rising or falling interest rates have a significant impact on the prepayment speeds of earning assets that in turn affect the rate sensitivity position. The Company's loan and lease portfolio consists of 91.6% variable rate loans adjustable with the prime rate or 3-month LIBOR. The Company's prepayment speeds react differently in a rising rate environment. Generally, when interest rates rise, the Company's prepayments tend to increase; the opposite reaction from typical bank loan and lease portfolios. In a rising rate environment, the Company's quarterly adjustable borrowers seek to fix their payments so the loans prepay faster as borrowers refinance into fixed rate products with another lender. When interest rates fall, prepayments tend to slow down. The Company's sensitivity would be reduced if prepayments slow and vice versa. While management believes such assumptions to be reasonable, approximate actual future activity may differ from the assumed prepayment rates presented below.

Basis Point ("bp") Change in Interest Rates	Estimated Increase/Decrease in Net Interest Income 12 Months Ending December 31, 2019	12 Months Ending December 31, 2020	Estimated Percentage Change in EVE As of December 31, 2018
+400	25.0%	11.6%	(9.4)%
+300	18.9	8.8	(7.0)
+200	12.7	5.9	(4.5)
+100	6.4	3.0	(2.1)
-100	(6.6)	(3.2)	1.8

Rates are increased instantaneously at the beginning of the projection. The Company is overall slightly asset sensitive, therefore, the large percentage of variable rate loans produce positive net interest income results as rates rise. Generally, banks will experience a decrease in net interest income as rates rise and an increase as rates decline. Sensitivity will decrease in the second year of the projection due to interest rates increasing or decreasing for the full year and also due to the other assumptions used in the analysis as noted previously but still have a positive impact in a rising rate environment. Interest rates do not normally move all at once or evenly over time, but management believes that the analysis is useful to understanding the potential direction and magnitude of net interest income changes due to changing interest rates.

The EVE analysis shows that the Company would theoretically lose market value in a rising rate environment. The increased fixed rate longer-term wholesale deposits has contributed a higher percentage than the assets to the portfolio mix, resulting in a negative change in market value in a rising rate environment. The favorable EVE change resulting from the loan and lease portfolio in a rising rate analysis is more than offset by the devaluation of the interest-bearing liabilities.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA
QUARTERLY FINANCIAL INFORMATION

The following table sets forth, for the periods indicated, certain consolidated quarterly financial information. This information is derived from the Company's unaudited financial statements, which include, in the opinion of management, all normal recurring adjustments which management considers necessary for a fair presentation of the results for such periods. This information should be read in conjunction with the consolidated financial statements included elsewhere in this report. The results for any quarter are not necessarily indicative of results for any future period.

Quarterly Financials

(dollars in thousands, except per share data)	2018			
	4th Qtr	3rd Qtr	2nd Qtr	1st Qtr
Interest income	$44,754	$41,890	$40,976	$35,023
Interest expense	15,959	14,166	13,928	10,547
Net interest income	28,795	27,724	27,048	24,476
Provision for loan and lease losses	6,822	(243)	2,087	4,392
Net interest income after provision for loan and lease losses	21,973	27,967	24,961	20,084
Noninterest income	18,065	24,331	30,613	30,756
Noninterest expense	32,558	41,244	40,830	38,072
Income before income taxes	7,480	11,054	14,744	12,768
Income tax expense (benefit)	(3,010)	(3,198)	491	315
Net income to common shareholders	$10,490	$14,252	$14,253	$12,453
Net income per share:				
Basic	$0.26	$0.36	$0.36	$0.31
Diluted	$0.26	$0.34	$0.34	$0.30

	2017			
	4th Qtr	3rd Qtr	2nd Qtr	1st Qtr
Interest income	$30,536	$28,172	$24,345	$20,419
Interest expense	7,560	7,147	5,953	4,778
Net interest income	22,976	21,025	18,392	15,641
Provision for loan and lease losses	4,055	2,426	1,556	1,499
Net interest income after provision for loan and lease losses	18,921	18,599	16,836	14,142
Noninterest income	95,441	25,060	26,667	25,753
Noninterest expense	41,024	35,856	33,300	32,985
Income before income taxes	73,338	7,803	10,203	6,910
Income tax expense (benefit)	1,608	(5,059)	408	798
Net income to common shareholders	$71,730	$12,862	$9,795	$6,112
Net income per share:				
Basic	$1.80	$0.34	$0.28	$0.18
Diluted	$1.74	$0.33	$0.27	$0.17

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Live Oak Bancshares, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Live Oak Bancshares, Inc. and Subsidiaries (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows for each of the years in the three year period ended December 31, 2018, and the related notes (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2019, expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements 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 laws and 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Dixon Hughes Goodman LLP

We have served as the Company's auditor since 2010.

Raleigh, North Carolina

February 27, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Live Oak Bancshares, Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Live Oak Bancshares, Inc.'s (the "Company") internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, Live Oak Bancshares, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated financial statements of Live Oak Bancshares, Inc. as of December 31, 2018 and 2017 and for each of the three years in the period ended December 31, 2018, and our report dated February 27, 2019, expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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/ Dixon Hughes Goodman LLP

Raleigh, North Carolina

February 27, 2019

Live Oak Bancshares, Inc.

Consolidated Balance Sheets

(Dollars in thousands)

	December 31, 2018	December 31, 2017
Assets		
Cash and due from banks	$ 316,823	$ 295,271
Certificates of deposit with other banks	7,250	3,000
Investment securities available-for-sale	380,490	93,355
Loans held for sale	687,393	680,454
Loans and leases held for investment	1,843,419	1,343,973
Allowance for loan and lease losses	(32,434)	(24,190)
Net loans and leases	1,810,985	1,319,783
Premises and equipment, net	262,524	178,790
Foreclosed assets	1,094	1,281
Servicing assets	47,641	52,298
Other assets	156,249	134,242
Total assets	$ 3,670,449	$ 2,758,474
Liabilities and Shareholders' Equity		
Liabilities		
Deposits:		
Noninterest-bearing	$ 53,993	$ 57,868
Interest-bearing	3,095,590	2,202,395
Total deposits	3,149,583	2,260,263
Short term borrowings	1,441	—
Long term borrowings	16	26,564
Other liabilities	25,849	34,714
Total liabilities	3,176,889	2,321,541
Shareholders' equity		
Preferred stock, no par value, 1,000,000 authorized, none issued or outstanding at December 31, 2018 and December 31, 2017	—	—
Class A common stock, no par value, 100,000,000 shares authorized, 35,512,262 and 35,252,053, shares issued and outstanding at December 31, 2018 and December 31, 2017, respectively	278,945	268,557
Class B common stock, no par value, 10,000,000 shares authorized, 4,643,530 shares issued and outstanding at December 31, 2018 and December 31, 2017	49,168	49,168
Retained earnings	167,124	120,241

Accumulated other comprehensive loss	(1,677)	(1,033)
Total shareholders' equity	493,560	436,933
Total liabilities and shareholders' equity	$ 3,670,449	$ 2,758,474

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.

Consolidated Statements of Income

(Dollars in thousands, except per share data)

	Years Ended December 31,		
	2018	2017	2016
Interest income			
Loans and fees on loans	$147,310	$99,633	$55,107
Investment securities, taxable	8,733	1,432	1,132
Other interest earning assets	6,600	2,407	1,033
Total interest income	162,643	103,472	57,272
Interest expense			
Deposits	54,469	24,223	13,659
Borrowings	131	1,215	964
Total interest expense	54,600	25,438	14,623
Net interest income	108,043	78,034	42,649
Provision for loan and lease losses	13,058	9,536	12,536
Net interest income after provision for loan and lease losses	94,985	68,498	30,113
Noninterest income			
Loan servicing revenue	29,121	24,588	21,393
Loan servicing asset revaluation	(18,765)	(13,171)	(8,391)
Net gains on sales of loans	75,170	78,590	75,326
Lease income	7,966	1,856	—
Gain on contribution to equity method investment	—	68,000	—
Gain on sale of investment securities available-for-sale	—	—	1
Construction supervision fee income	2,277	1,776	2,667
Title insurance income	2,775	7,565	—
Other noninterest income	5,221	3,717	2,543
Total noninterest income	103,765	172,921	93,539
Noninterest expense			
Salaries and employee benefits	77,411	74,669	62,996
Travel expense	9,156	8,124	8,205
Professional services expense	4,878	4,937	3,482
Advertising and marketing expense	6,015	6,363	4,534
Occupancy expense	7,065	6,195	4,573
Data processing expense	12,010	8,449	5,299
Equipment expense	13,724	7,479	2,246
Other loan origination and maintenance expense	5,967	4,970	2,825
Renewable energy tax credit investment impairment	—	690	3,197
FDIC insurance	3,234	3,206	1,417
Title insurance closing services expense	912	2,418	—
Impairment expense on goodwill and other intangibles	2,680	3,648	—
Other expense	9,652	12,017	7,671
Total noninterest expense	152,704	143,165	106,445
Income before taxes	46,046	98,254	17,207

Income tax (benefit) expense	(5,402)	(2,245)	3,443
Net income	51,448	100,499	13,764
Net loss attributable to noncontrolling interest	—	—	9
Net income attributable to Live Oak Bancshares, Inc.	$51,448	$100,499	$13,773
Basic earnings per share	$1.28	$2.75	$0.40
Diluted earnings per share	$1.24	$2.65	$0.39

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.

Consolidated Statements of Comprehensive Income

(Dollars in thousands)

	Years Ended December 31,		
	2018	2017	2016
Net income	$51,448	$100,499	$13,764
Other comprehensive loss before tax:			
Net unrealized loss on investment securities arising during the period	(526)	(619)	(746)
Reclassification adjustment for gain on sale of securities available-for-sale included in net income	—	—	(1)
Other comprehensive loss before tax	(526)	(619)	(747)
Income tax benefit	126	238	287
Other comprehensive loss, net of tax	(400)	(381)	(460)
Total comprehensive income	$51,048	$100,118	$13,304

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.

Consolidated Statements of Changes in Shareholders' Equity

(Dollars in thousands, except per share data)

	Common stock Shares				Accumulated other comprehensive	Non-controlling	Total
	Class A	Class B	Amount	Retained earnings	loss	interest	equity
Balance at December 31, 2015	29,449,369	4,723,530	$187,507	$12,140	$ (192)	$ 33	$199,488
Net income (loss)	—	—	—	13,773	—	(9)	13,764
Other comprehensive loss	—	—	—	—	(460)	—	(460)
Issuance of restricted stock	16,745	—	—	—	—	—	—
Stock option exercises	63,958	—	401	—	—	—	401
Stock option based compensation expense	—	—	2,349	—	—	—	2,349
Restricted stock expense	—	—	9,724	—	—	—	9,724
Acquisition of non-controlling interest	—	—	—	—	—	(24)	(24)
Cash dividends ($0.07 per share)	—	—	—	(2,395)	—	—	(2,395)
Balance at December 31, 2016	29,530,072	4,723,530	$199,981	$23,518	$ (652)	$ —	$222,847
Net income	—	—	—	100,499	—	—	100,499
Other comprehensive loss	—	—	—	—	(381)	—	(381)
Issuance of restricted stock	307,613	—	—	—	—	—	—
Withholding cash issued in lieu of restricted stock issuance	—	—	(4,891)	—	—	—	(4,891)
Employee stock purchase program	22,634	—	445	—	—	—	445
Stock option exercises	109,010	—	1,026	—	—	—	1,026
Stock option based compensation expense	—	—	1,786	—	—	—	1,786
Restricted stock expense	—	—	5,717	—	—	—	5,717
Stock issued in acquisition of Reltco, Inc.	27,724	—	565	—	—	—	565
Non-voting common stock converted to	80,000	(80,000)	—	—	—	—	—

voting common stock in private sale							
Issuance of common stock in connection with secondary offering, net of issue costs	5,175,000	—	113,096	—	—	—	113,096
Cash dividends ($0.10 per share)	—	—	—	(3,776)	—	—	(3,776)
Balance at December 31, 2017	35,252,053	4,643,530	$317,725	$120,241	$ (1,033)	$ —	$436,933
Net income	—	—	—	51,448	—	—	51,448
Other comprehensive loss	—	—	—	—	(400)	—	(400)
Issuance of restricted stock	64,308	—	—	—	—	—	—
Withholding cash issued in lieu of restricted stock issuance	—	—	(756)	—	—	—	(756)
Employee stock purchase program	14,339	—	342	—	—	—	342
Stock option exercises	181,562	—	1,626	—	—	—	1,626
Stock option based compensation expense	—	—	1,713	—	—	—	1,713
Restricted stock expense	—	—	7,463	—	—	—	7,463
Reclassification of accumulated other comprehensive income due to tax rate change	—	—	—	244	(244)	—	—
Cash dividends ($0.12 per share)	—	—	—	(4,809)	—	—	(4,809)
Balance at December 31, 2018	35,512,262	4,643,530	$328,113	$167,124	$ (1,677)	$ —	$493,560

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.

Consolidated Statements of Cash Flows

(Dollars in thousands)

	Years Ended December 31,		
	2018	2017	2016
Cash flows from operating activities			
Net income	$51,448	$100,499	$13,764
Adjustments to reconcile net income to net cash provided (used) by operating activities:			
Depreciation and amortization	16,386	10,279	4,260
Provision for loan and lease losses	13,058	9,536	12,536
Amortization of premium on securities, net of accretion	802	460	242
Amortization of discount on unguaranteed loans, net	2,768	2,848	2,854
Impairment expense on goodwill and other intangibles, net	2,680	3,648	—
Deferred tax (benefit) expense	(5,936)	12,017	(4,288)
Originations of loans held for sale	(1,079,472)	(1,149,617)	(1,013,643)
Proceeds from sales of loans held for sale	1,086,614	883,366	837,830
Net gains on sale of loans held for sale	(75,170)	(78,590)	(75,326)
Net loss on sale of foreclosed assets	38	59	18
Gain on contribution to equity method investment	—	(68,000)	—
Net decrease (increase) in servicing assets	4,657	(304)	(7,764)
Gain on sale of securities available-for-sale	—	—	(1)
Net loss on disposal of premises and equipment	37	215	—
Renewable energy tax credit investment impairment	—	690	3,197
Stock option based compensation expense	1,713	1,786	2,349
Restricted stock expense	7,463	5,717	9,724
Stock based compensation expense excess tax benefits	101	1,002	—
Business combination contingent consideration fair value adjustment	(260)	1,950	—
Changes in assets and liabilities:			
Other assets	(13,867)	(25,247)	(8,929)
Other liabilities	(1,539)	157	1,227
Net cash provided (used) by operating activities	11,521	(287,529)	(221,950)
Cash flows from investing activities			
Purchases of securities available-for-sale	(347,184)	(43,071)	(37,421)
Proceeds from sales, maturities, calls, and principal paydowns of securities available-for-sale	56,631	19,693	19,139
Proceeds from sale/collection of foreclosed assets, net	527	1,498	1,221
Business combination, net of cash acquired	—	(7,696)	—
Sale of title insurance business, net of cash sold	(209)	—	—
Investment in certificates of deposit with other banks	(6,750)	—	(250)

Maturities of certificates of deposit with other banks	2,500	4,250	3,250
Loan and lease originations and principal collections, net	(445,643)	(385,551)	(295,119)
Proceeds from sale of premises and equipment	865	—	—
Purchases of premises and equipment, net	(111,322)	(124,139)	(10,889)
Net cash used by investing activities	(850,585)	(535,016)	(320,069)

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.

Consolidated Statements of Cash Flows (Continued)

(Dollars in thousands)

	Years Ended December 31,		
	2018	2017	2016
Cash flows from financing activities			
Net increase in deposits	$889,320	$775,187	$680,288
Proceeds from long term borrowings	18	16,900	—
Repayment of long term borrowings	(25,077)	(26,279)	(532)
Proceeds from short term borrowings	—	23,100	—
Repayment of short term borrowings	(48)	(15,000)	—
Stock option exercises	1,626	1,026	401
Employee stock purchase program	342	445	—
Withholding cash issued in lieu of restricted stock	(756)	(4,891)	—
Sale of common stock, net of issuance costs	—	113,096	—
Shareholder dividend distributions	(4,809)	(3,776)	(2,737)
Net cash provided by financing activities	860,616	879,808	677,420
Net increase in cash and cash equivalents	21,552	57,263	135,401
Cash and cash equivalents, beginning	295,271	238,008	102,607
Cash and cash equivalents, ending	$316,823	$295,271	$238,008
Supplemental disclosure of cash flow information			
Interest paid	$54,106	$25,390	$14,516
Income tax	1,750	7,084	8,238
Supplemental disclosures of noncash operating, investing, and financing activities			
Unrealized holding losses on available-for-sale securities, net of taxes	$(400)	$(381)	$(460)
Transfers from loans to foreclosed real estate and other repossessions	346	1,406	406
Net transfers from foreclosed real estate to SBA receivable	(32)	216	185
Transfer from fixed assets to other assets held for sale	10,467	—	4,621
Transfer of loans held for sale to loans held for investment	131,266	63,643	339,567
Transfer of loans held for investment to loans held for sale	94,154	19,534	2,296
Contingent consideration in acquisition of controlling interest in equity method investment	—	—	24
Transfers from short term borrowings to long term borrowings	—	8,100	—
Transfers from long term borrowings to short term borrowings	1,489	—	—
Accrued premises and equipment additions	534	—	—
Loans to finance sale of other assets	3,642	—	—
Business combination:			

Assets acquired (excluding goodwill)	—	5,766	—
Liabilities assumed	—	4,681	—
Purchase price	—	8,363	—
Goodwill recorded	—	7,278	—

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Note 1. Organization and Summary of Significant Accounting Policies

Organization

Live Oak Banking Company (the “Bank”) was organized and incorporated under the laws of the State of North Carolina on February 25, 2008 and commenced operations on May 12, 2008. In December 2008, Live Oak Bancshares, Inc. (the “Company”) was formed and in the first quarter of 2009 acquired all the outstanding shares of Live Oak Banking Company. The Bank is headquartered in the city of Wilmington, North Carolina and has five satellite sales offices across the United States. The Bank specializes in providing lending and deposit related services to small businesses nationwide. The Bank identifies and grows lending to credit-worthy borrowers both within specific industries, also called verticals, through expertise within those industries, and more broadly to select borrowers outside of those industries. A significant portion of the loans originated by the Bank are guaranteed by the Small Business Administration (“SBA”) under the 7(a) Loan Program and the U.S. Department of Agriculture ("USDA") Rural Energy for America Program ("REAP") and Business & Industry ("B&I") loan programs. The guaranteed portion of select loans are generally available for sale in the secondary market. From time to time the Bank may also engage in the sale of participating interests in the unguaranteed portion. As a state chartered bank, the Bank is subject to regulation by the North Carolina Commissioner of Banks and the Federal Deposit Insurance Corporation. On July 23, 2015 the Company closed on its initial public offering with a secondary offering completed in August of 2017.

In 2010, the Bank formed Live Oak Number One, Inc. to hold properties foreclosed on by the Bank. Live Oak Number One is a wholly-owned subsidiary of the Bank.

In September 2013, the Company acquired Government Loan Solutions (“GLS”) as a wholly-owned subsidiary. GLS is a management and technology consulting firm that advises and offers solutions and services to participants in the government guaranteed lending sector. GLS, which was founded in 2006, primarily provides services in connection with the settlement, accounting, and securitization processes for government guaranteed loans, including loans originated under the SBA 7(a) loan programs and USDA guaranteed loans.

In December 2013, the Company jointly formed 504 Fund Advisors, LLC (“504FA”) to serve as the investment adviser for The 504 Fund, a closed-end mutual fund organized to invest in SBA section 504 loans. The Company acquired control over 504FA on February 2, 2015 and 504FA became a wholly owned subsidiary on September 1, 2016.

In September 2015, the Company formed Live Oak Grove, LLC (“Grove”), a wholly-owned subsidiary, for the purpose of providing Company employees and business visitors an on-site restaurant location.

In August 2016, the Company formed Live Oak Ventures, Inc. (formerly known as Canapi, Inc.) for the purpose of investing in businesses that align with the Company's strategic initiative to be a leader in financial technology.

In November 2016, the Company formed Live Oak Clean Energy Financing LLC for the purpose of providing financing to entities for renewable energy applications.

On February 1, 2017, the Company completed its acquisition of Reltco Inc. and National Assurance Title, Inc. (collectively referred to as “Reltco”), two nationwide title agencies under common control based in Tampa, Florida. Effective August 1, 2018, Reltco was sold. See Note 2. Title Insurance Business for more information.

In June 2018, the Bank formed Live Oak Private Wealth, LLC for the purpose of providing high-net-worth individuals and families with strategic wealth and investment management services.

Basis of Presentation

Dollar amounts in all tables in the Notes to Consolidated Financial Statements have been presented in thousands, except percentage, time period, stock option, share and per share data. The accounting and reporting policies of the Company and the Bank follow United States generally accepted accounting principles and general practices within the financial services industry. The following is a description of the significant accounting and reporting policies the Company follows in preparing and presenting its consolidated financial statements.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Consolidation Policy

The consolidated financial statements include the financial statements of the Company and wholly-owned subsidiaries of Live Oak Banking Company, Live Oak Number One, GLS, 504FA, Grove, Live Oak Ventures, Live Oak Clean Energy Financing, Reltco and Live Oak Private Wealth. All significant intercompany balances and transactions have been eliminated in consolidation. In addition, the Company evaluates its relationships with other entities to identify whether they are variable interest entities and to assess whether it is the primary beneficiary of such entities. If the determination is made that the Company is the primary beneficiary, then that entity is included in the consolidated financial statements. If an entity is not a variable interest entity, the Company also evaluates arrangements in which there is a general partner or managing member to determine whether consolidation is appropriate.

Unconsolidated investments where we have the ability to exercise significant influence over the operating and financial policies of the respective investee are accounted for using the equity method of accounting; those that are not consolidated or accounted for using the equity method of accounting are accounted for under equity security or fair value accounting. For these investments accounted for under the equity method, the Company records its investment in non-consolidated affiliates and the portion of income or loss in equity in income of non-consolidated affiliates. The Company periodically evaluates these investments for impairment.

Variable Interest Entities

Variable interests are defined as contractual ownership or other interests in an entity that change with fluctuations in an entity's net asset value. The primary beneficiary consolidates the variable interest entity ("VIE"). The primary beneficiary is defined as the enterprise that has both the power to direct the activities of the VIE that most significantly impact the entity's economic performance and the obligation to absorb losses or the right to receive benefits that could be significant to the VIE.

The Company has a limited interest in a partnership that owns and operates a solar renewable energy project which is accounted for as an equity method investment. Over the course of the investment, the Company will receive federal and state tax credits, tax-related benefits, and excess cash available for distribution, if any. The Company may be called to sell its interest in the limited partnerships through a call option once all investment tax credits have been recognized.

This entity meets the criteria of a VIE; however, the Company is not the primary beneficiary of this entity, as the general partner has both the power to direct the activities that most significantly impact the economic performance of the entities and the obligation to absorb losses or the right to receive benefits that could be significant to the entity. While the partnership agreement allows the Company to remove the general partner, this right is not deemed to be substantive as the general partner can only be removed for cause.

The Company’s investments in the unconsolidated VIE is carried in other assets on the consolidated balance sheet and the Company’s unfunded capital and other commitments related to the unconsolidated VIE is carried in other liabilities on the consolidated balance sheet.

The Company’s maximum exposure to loss from this unconsolidated VIE includes the investment recorded on the Company’s consolidated balance sheet, net of unfunded capital commitments and any impairment recognized, and previously recorded tax credits which remain subject to recapture by taxing authorities based on compliance features

required to be met at the project level. While the Company believes the potential for losses from this investment is remote, the maximum exposure was determined by assuming a scenario where related tax credits were recaptured.

The following table provides a summary of the tax advantaged VIE that the Company has not consolidated as of December 31, 2018 and 2017:

	2018	2017
Investment carrying amount	$602	$705
Unfunded capital	—	—
Maximum exposure to loss	3,240	4,221

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Business Combinations

Business combinations are accounted for by applying the acquisition method in accordance with Accounting Standards Codification (ASC) 805, Business Combinations. Under the acquisition method, identifiable assets acquired and liabilities assumed, and any non-controlling interest in the acquiree at the acquisition date are measured at their fair values as of that date, and are recognized separately from goodwill. Results of operations of the acquired entities are included in the consolidated statements of comprehensive income from the date of acquisition. Any measurement-period adjustments are recorded in the period the adjustment is identified.

Business Segments

Operating segments are components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. Management has determined that the Company has one significant operating segment, which is providing a lending platform for small businesses nationwide. In determining the appropriateness of segment definition, the Company considers the materiality of a potential segment, the components of the business about which financial information is available, and components for which management regularly evaluates relative to resource allocation and performance assessment.

Initial and Secondary Public Offerings

In April 2015, the Company filed a Registration Statement on Form S-1 with the U.S. Securities and Exchange Commission (SEC). This Registration Statement was declared effective by the SEC on July 22, 2015. In reliance on that Registration Statement, the Company issued 5,500,000 shares of voting common stock, no par value, at $17.00 per share, in exchange for total proceeds of $87.2 million, net of issue costs.

In August 2017, the Company completed a secondary offering by issuing 5,175,000 shares of voting common stock, no par value, at $23.00 per share, in exchange for total proceeds of $113.1 million, net of issuance costs. The secondary offering was made pursuant to a prospectus supplement dated August 8, 2017 and an accompanying prospectus dated July 28, 2017, pursuant to the Company’s shelf registration statement on Form S-3 that was filed with the Securities and Exchange Commission and became effective on July 28, 2017.

Use of Estimates

In preparing financial statements in conformity with accounting principles generally accepted in the United States of America (“GAAP”), management is required to make estimates and assumptions that affect reported amounts of assets and liabilities as of the date of the balance sheet and reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Material estimates that are particularly susceptible to significant change in the near term relate to the determination of the allowance for loan and lease losses, valuations of servicing assets and income taxes. In addition, the 2017 gain on contribution to equity method investment of $68.0 million was based on management's estimates, including projected cash flows of the entity, and is inherently subjective by its nature.

Cash and Cash Equivalents

For the purpose of presentation in the statement of cash flows, cash and cash equivalents are defined as those amounts included in the balance sheet caption “cash and due from banks.” Cash and cash equivalents have initial maturity of three months or less.

To comply with banking regulations, the Company is required to maintain certain average cash reserve balances. The daily average cash reserve requirement was approximately $1.7 million and $6.6 million for the years ended December 31, 2018 and 2017, respectively.

Certificates of Deposit with other Banks

Certificates of deposit with other banks have maturities ranging from November 2019 through November 2023 and bear interest at rates ranging from 0.20% to 3.55%. None of the certificates of deposit had maturities of 12 months or less at the time of origination. All investments in certificates of deposit are with FDIC insured financial institutions and none exceed the maximum insurable amount of $250 thousand.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Investments

Securities

Certain debt securities that management has the positive intent and ability to hold to maturity are classified as "held-to-maturity" and recorded at amortized cost. Trading securities are recorded at fair value with changes in fair value included in earnings. Securities not classified as held-to-maturity or trading, are classified as "available-for-sale" and recorded at fair value. Unrealized gains and losses for available-for-sale investment securities are excluded from earnings and reported in other comprehensive income. The Company's entire portfolio for the periods presented is classified as available-for-sale.

Purchase premiums and discounts are recognized in interest income using the interest method over the terms of the securities. Gains and losses on the sales of securities are recorded on the trade date and are determined using the specific identification method.

Other

Other investments are generally non-marketable equity investments and are included in the other assets line on the consolidated balance sheet. The Company generally accounts for other investments either under the equity method or the provisions of Accounting Standards Update 2016-01 "Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities" ("ASU 2016-01"), beginning in 2018. Investments through which there is significant influence but not control over the investee are accounted for under the equity method. Investments through which the Company is not able to exercise significant influence over the investee are accounted for under ASU 2016-01 whereby investments are measured at fair value with changes in fair value recognized in net income, unless those investments have no readily determinable fair value. Investments without a readily determinable fair value are measured at cost minus impairment, if any, plus or minus changes in value resulting from observable price changes arising from orderly transactions. For periods ending prior to January 1, 2018, the Company recognized gains and losses in earnings only when equity securities were sold, based on the difference between the sale proceeds and the cost of the securities, and for other than temporary impairment losses.

Impairment

At each reporting date, the Company evaluates each investment in a loss position for other than temporary impairment ("OTTI"). The Company evaluates declines in market value below cost for debt securities by assessing the likelihood of selling the security prior to recovering its cost basis. If the Company intends to sell the debt security or it is more-likely-than-not that the Company will be required to sell the debt security prior to recovering its cost basis, the Company will write down the security to fair value with the full charge recorded in earnings. If the Company does not intend to sell the debt security and it is not more-likely-than-not that the Company will be required to sell the debt security prior to recovery, the security will not be considered other-than-temporarily impaired unless there are credit losses associated with the security. In that case: (1) where credit losses exist, the portion of the impairment related to those credit losses should be recognized in earnings; (2) any remaining difference between the fair value and the cost basis should be recognized as part of other comprehensive income. For equity securities, any OTTI is recognized with the full charge recorded in earnings. To determine whether an impairment of equity securities is OTTI, the Company considers whether it has the ability and intent to hold the investment until there is a market price recovery and considers whether evidence indicating the cost of the investment is recoverable outweighs evidence to the contrary.

In determining whether OTTI exists, management considers many factors, including (1) the length of time and the extent to which the fair value has been less than cost, (2) the financial condition and near-term prospects of the issuer, and (3) the intent and ability of the Company to retain its investment in the issuer for a period of time sufficient to allow for any anticipated recovery in fair value.

Federal Home Loan Bank Stock

Membership in the Federal Home Loan Bank of Atlanta (“FHLB”) requires ownership of FHLB stock. FHLB stock is restricted because it may only be sold to the FHLB and all sales must be at par. FHLB stock is carried at cost minus impairment, if any, and is recorded within other assets in the consolidated balance sheets. FHLB stock was $3.1 million at December 31, 2018. The Company did not own FHLB stock as of December 31, 2017.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Loans Held For Sale

Management designates loans as held for sale ("HFS") based on its intent to sell guaranteed portions in the SBA and USDA Secondary Market and unguaranteed portions to participant banks and credit unions. Salability requirements of the guaranteed portion include, but are not limited to, full disbursement of the loan commitment amount. Loans originated and intended for sale are carried at the lower of cost or estimated fair value on a loan-by-loan basis. The cost basis of loans held for sale includes the deferral of loan origination fees and costs. Deferred fees and costs are accreted and amortized for loans classified held for sale until the sale occurs. At loan settlement, the pro-rata portion, based on the percent of the total loan sold, of the remaining deferred fees and costs are recognized as an adjustment to the gain on sale.

As part of the Company's management of the loans held in the portfolio, the Company will occasionally transfer loans from held for investment to held for sale. Upon transfer, any associated allowance for loan and lease loss is released and the carrying value of the loans is adjusted to the estimated fair value. The loans are subsequently accounted for at the lower of cost or fair value, with valuation changes recorded in other noninterest income. Gains or losses on the sale of these loans are also recorded in noninterest income. In certain circumstances, loans designated as held for sale may later be transferred back to the held for investment loan and lease portfolio based upon the Company's intent and ability to hold the loans for the foreseeable future. The Company transfers these loans to loans and leases held for investment at the lower of cost or fair value and establishes a related allowance for loan and lease loss.

In accordance with SBA and USDA regulation, the Bank is required to retain 10% and 5% of the principal balance of any SBA 7(a) or USDA loan, respectively, comprised of unguaranteed dollars. With written consent from the SBA, the Bank may sell down to a 5% exposure comprised of unguaranteed dollars.

The gain on sale recognized in income is the sum of the premium on the guaranteed loan and the fair value of the servicing assets recognized, less the discount recorded on the unguaranteed portion of the loan retained, and any fair value fluctuations in exchange-traded interest rate futures contracts, also defined as interest rate lock commitments.

The following summarizes the activity pertaining to loans held for sale for the years ended December 31, 2018 and 2017:

	2018	2017
Balance at beginning of year	$680,454	$394,278
Originations	1,079,472	1,149,617
Proceeds from sale	(1,086,614)	(883,366)
Gain on sale of loans	75,170	78,590
Principal collections, net of deferred fees and costs	(23,977)	(14,556)
Non-cash transfers, net	(37,112)	(44,109)
Balance at end of period	$687,393	$680,454

Loans and Leases Held for Investment

Loans and leases receivable that management has the intent and ability to hold for the foreseeable future or until maturity or pay-off are classified as held for investment ("HFI") and reported at their outstanding principal amount adjusted for any charge-offs, the allowance for loan and lease losses, and any deferred fees or costs on originated loans and leases and unamortized premium or discount on purchased loans. Loan origination fees, net of certain direct origination costs, are deferred and recognized as an adjustment of the related loan yield using the interest method. Discounts and premiums on any purchased loans are amortized to income using the interest method over the remaining period to contractual maturity, adjusted for anticipated prepayments. Loans and leases designated as held for investment include those identified as more beneficial to hold for the long term as well as the required retention amount defined by the SBA and USDA. Loans and leases held for investment also consist of certain guaranteed and unguaranteed credits including those designated as troubled debt restructurings, nonaccrual, non-marketable, and risk grade 5 or worse as defined by internal risk rating metrics.

During the second quarter of 2016, the Bank transferred $318.8 million in unguaranteed loans from the HFS category to the HFI category to better reflect intentions of the Company.

Interest income on loans and leases is recognized as earned on a daily accrual basis. The accrual of interest on loans and leases is discontinued when principal or interest is past due 90 days or the loan or lease is determined to be impaired. Impaired loans and leases, or portions thereof, are charged off when deemed uncollectible.

Equipment Leasing

The Company purchases new equipment for the purpose of leasing such equipment to customers within its verticals. Equipment purchased to fulfill commitments to commercial renewable energy projects is leased out under operating leases while leases of equipment outside of the renewable energy vertical are generally direct financing leases. Accordingly, leased assets under operating leases are included in premises and equipment while leased assets under direct financing leases are included in loans and leases held for investment.

Direct Financing Leases

Interest income on direct financing leases is recognized when earned. Unearned interest is recognized over the lease term on a basis which results in a constant rate of return on the unrecovered lease investment. The term of each lease is generally 3-7 years which is consistent with the useful life of the equipment with no residual value.

Operating Leases

The term of each operating lease is generally 10 to 15 years. The Company retains ownership of the equipment and associated tax benefits such as investment tax credits and accelerated depreciation. At the end of the lease term, the lessee has the option to renew the lease for two additional terms or purchase the equipment at the then current fair market value.

Rental revenue from operating leases is recognized on a straight-line basis over the term of the lease. Rental equipment is recorded at cost and depreciated to an estimated residual value on a straight-line basis over the estimated useful life. The useful lives generally range from 20 to 25 years and residual values generally range from 20% to 50%, however, they are subject to periodic evaluation. Changes in useful lives or residual values will impact depreciation expense and any gain or loss from the sale of used equipment. The estimated useful lives and residual values of the Company's leasing equipment are based on industry disposal experience and the Company's expectations for future sale prices.

If the Company decides to sell or otherwise dispose of rental equipment, it is carried at the lower of cost or fair value less costs to sell or dispose. Repair and maintenance costs that do not extend the lives of the rental equipment are charged to direct operating expenses at the time the costs are incurred.

Allowance for Loan and Lease Losses

The allowance for loan and lease losses is established as losses are estimated to have occurred through a provision for loan and lease losses charged to earnings. Loan or lease losses are charged against the allowance when management believes the un-collectibility of a loan or lease balance is confirmed. Subsequent recoveries, if any, are credited to the allowance.

The allowance for loan and lease losses is evaluated on a regular basis by management and is based upon management's periodic review of the collectibility of loans or leases in light of historical experience, the nature and volume of the loan and lease portfolio, adverse situations that may affect the borrower's ability to repay, estimated value of any underlying collateral and prevailing economic conditions. This evaluation is inherently subjective as it requires estimates that are susceptible to significant revision as more information becomes available.

A loan or lease 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 or lease agreement. Factors considered by management in determining impairment include payment status and other circumstances impacting the probability of collecting scheduled principal and interest payments when due.

Management determines the significance of payment delays and payment shortfalls on a case-by-case basis, taking into consideration all circumstances surrounding the loan or lease 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 credit-by-credit basis by either the present value of expected future cash flows discounted at the loan or lease's effective interest rate, the loan or lease's obtainable market price, or the fair value of the collateral, if the loan or lease is collateral dependent, except for large groups of smaller balance homogeneous loans or leases which may be collectively evaluated for impairment. Smaller balance loan or lease relationships collectively evaluated for impairment are generally comprised of credits with unguaranteed exposure of less than $100,000 using a methodology based on historical specific reserves on similar sized loans or leases. Loans or leases classified as troubled debt restructured ("TDR") are considered impaired. Loans or leases that experience insignificant payment delays and payment shortfalls generally are not classified as impaired.

A loan or lease is accounted for as a TDR if the Company, for reasons related to the borrower's financial difficulties, restructures a loan or lease, and grants a concession to the borrower that it would not otherwise grant. A TDR typically involves a modification of terms such as a reduction of the interest rate below the current market rate for a loan or lease with similar risk characteristics or the waiving of certain financial covenants without corresponding offsetting compensation or additional support. The Company measures the impairment loss of a TDR using the methodology for individually impaired loans or leases.

Interest is accrued and credited to income based on the principal amount outstanding. The accrual of interest on impaired loans or leases is discontinued when, in management's opinion, the borrower may be unable to meet payments as they become due or when the loan or lease becomes ninety days past due. Past due status of loans and leases is determined based on contractual terms. When interest accrual is discontinued, all unpaid accrued interest is reversed. Interest income is subsequently recognized on the cash-basis or cost-recovery method, as appropriate. Cash payments of interest on nonaccrual loans or leases will be applied to the principal balance of the loan or lease. When facts and circumstances indicate the borrower has regained the ability to meet the required payments, the loan or lease is returned to accrual status. Interest accruals are resumed on nonaccrual loans or leases only when it is brought current with respect to interest and principal and when, in the judgment of management, the loans or leases are estimated to be fully collectible as to all principal and interest. Management's judgment is based on an assessment of the borrower's financial condition and a recent history of payment performance.

The Company identifies all impaired loans and leases, including those individually and collectively evaluated for impairment, for impairment disclosures.

Upon transfer from held for sale classification, loans and leases held for investment become subject to the allowance for loan and lease loss review process. As a result of this process, the above mentioned $318.8 million loan reclassification resulted in a $4.0 million increase in the provision for loan and lease losses during the second quarter of 2016.

During the second quarter of 2016, the Company also implemented enhancements to the methodology for estimating the allowance for loan and lease losses, including refinements to the measurement of qualitative factors in the estimation process. Management believes these enhancements will improve the precision of the process for estimating the allowance, but did not fundamentally change the Company's approach. These revisions resulted in a $390 thousand reduction in the provision for loan and lease losses during the second quarter of 2016.

Foreclosed Assets

Real estate properties acquired through, or in lieu of, loan foreclosure are to be sold and are initially recorded at the lower of carrying amount or fair value less anticipated cost to sell at the date of foreclosure, establishing a new cost basis. Any write down at the time of transfer to foreclosed assets is charged to the allowance for loan and lease losses. After foreclosure, valuations are periodically performed by management, and the real estate is carried at the lower of carrying amount or fair value, less cost to sell. Subsequent write downs are charged to other loan origination and maintenance expense. Costs relating to improvement of the property are capitalized while holding costs of the property are charged to other loan origination and maintenance expense in the period incurred.

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Premises and Equipment

All premises and equipment, excluding land, are carried at cost, less accumulated depreciation. Land is carried at cost. Additions and major replacements or improvements which extend useful lives of property or equipment are capitalized. Maintenance, repairs, and minor improvements are expensed as incurred. Upon retirement or other disposition of the assets, the cost and related depreciation are derecognized and any resulting gain or loss is reflected in income. Leasehold improvements are amortized over the terms of the respective leases or the estimated useful lives of the improvements, whichever is shorter. Depreciation is computed by the straight-line method over the following estimated useful lives:

	Years
Buildings	39
Transportation	5-10
Land Improvements	10-15
Furniture and equipment	5-10
Computers and software	3-5
Solar panels	20-25

Servicing Assets

All sales of loans are executed on a servicing retained basis. The standard SBA loan sale agreement is structured to provide the Company with a “servicing spread” paid from a portion of the interest cash flow of the loan. SBA regulations require the Bank to retain a portion of the cash flow from the interest payments received for a sold loan. The SBA retention requirement is at least 100 basis points in servicing spread while the Company's standard USDA loan sale agreement specifies a servicing spread of 40 basis points. The portion of the servicing spread that exceeds adequate compensation for the servicing function is recognized as a servicing asset. Industry practice recognizes adequate compensation for servicing SBA and USDA loans as 40 basis points. The fair value of the servicing asset is measured at the discounted present value of the excess servicing spread over the expected life of the related loan using appropriate discount rates and assumptions based on industry statistics for prepayment speeds.

Servicing assets are recognized as separate assets when rights are acquired through purchase or through sale of financial assets and are carried at fair value. Generally, purchased servicing rights are capitalized at the cost to acquire the rights. For sales of loans, a portion of the cost of originating the loan is allocated to the servicing right based on fair value. Fair value is based on market prices for comparable servicing contracts, when available, or alternatively, is based on a valuation model that calculates the present value of estimated future net servicing income. The valuation model incorporates assumptions that market participants would use in estimating future net servicing income, such as adequate compensation for servicing, the discount rate, the custodial earnings rate, an inflation rate, ancillary income, prepayment speeds and default rates and losses. Capitalized servicing rights are carried at fair value as of the reporting date. Changes to fair value are reported in loan servicing asset revaluation.

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 income when earned.

The Company's investment in a loan is allocated between the retained portion of the loan, the servicing asset, and the sold portion of the loan on the date the loan is sold.

When only a portion of a loan is sold, GAAP requires the Company to reallocate the carrying basis between the portion of the loan sold and the portion of the loan retained based on the relative fair value of the respective portions as of the date of sale. The maximum gain on sale that can be recognized is the difference between the fair value of the guaranteed portion sold and the reallocated basis of the portion of the loan sold. The Company measures the fair value of the guaranteed portion of the loan by the cash premium at which the sale was consummated. The limitation on the maximum gain allowed to be recognized results in a discount recorded on the unguaranteed dollars retained. The carrying value of the retained portion of the loan is discounted based in part on the estimates derived from the Company's comparable nonguaranteed loan sales.

Derivative Financial Instruments

Interest Rate Futures Contracts

The Company uses exchange-traded interest rate futures contracts to manage interest rate risk that may impact expected gains arising from future secondary market loan sales. Upon entering into a futures contract, the Company is required to pledge to the counterparty an amount of cash equal to a certain percentage of the contract amount, also known as an initial margin deposit. Subsequent payments, known as variation margin, are made or received by the Company each day to settle the daily fluctuations in the fair value of the underlying contract. Investments in these derivative contracts are subject to risks that can result in a loss of all or part of an investment. Credit risk is considered low because the counterparties are futures exchanges. The Company has not designated any derivative as a hedging instrument under applicable accounting guidance. Changes in fair value of the derivative contracts is recorded as a component of "net gains on sales of loans" on the consolidated statement of income. The Company recognized a loss of $68 thousand, a loss of $117 thousand and a gain of $31 thousand on the derivative contracts for the years ended December 31, 2018, 2017 and 2016, respectively. The total notional amount of derivative contracts outstanding was $40.3 million, $29.9 million and $8.0 million as of December 31, 2018, 2017 and 2016, respectively. The fair value of the derivative contracts on the balance sheet date is zero due to the daily cash settlement of contracts.

Equity Warrant Assets

In connection with negotiated credit facilities and certain other services, the Company may obtain equity warrant assets giving the Company the right to acquire stock in private companies in certain verticals. These assets are held for prospective investment gains and are not used to hedge any economic risks. Further, the Company does not use other derivative instruments to hedge economic risks stemming from equity warrant assets.

Equity warrant assets in certain private client companies are recorded as derivatives when they contain net settlement terms and other qualifying criteria under Accounting Standards Codification 815. Equity warrant assets entitle the Company to purchase a specific number of shares of stock at a specific price within a specific time period, generally 10 years. Certain equity warrant assets contain contingent provisions, which adjust the underlying number of shares or purchase price upon the occurrence of certain future events to prevent dilution of the Company’s implied ownership represented by the warrants. Certain warrant agreements contain net share settlement provisions, which permit the receipt of, upon exercise, a share count equal to the intrinsic value of the warrant divided by the share price (otherwise known as a “cashless” exercise). These equity warrant assets are recorded at fair value and are classified as derivative assets, a component of other assets, on the consolidated balance sheet at the time they are obtained.

The grant date fair values of equity warrant assets classified as derivatives received in connection with the issuance of a credit facility are deemed to be loan fees and recognized as an adjustment of loan yield through loan interest income. Similar to other loan fees, the yield adjustment related to grant date fair value of warrants is recognized over the life of that credit facility.

Any changes in fair value from the grant date fair value of equity warrant assets classified as derivatives will be recognized as increases or decreases to other assets on the consolidated balance sheet and as net gains or losses on

derivative instruments, in other noninterest income, a component of consolidated net income. When a portfolio company is acquired, the Company may exercise these equity warrant assets for shares or cash.

The fair value of equity warrant assets classified as derivatives is reviewed quarterly using a Black-Scholes option pricing model.

For those equity warrant assets that do not contain net share settlement provisions, the Company considers these to be equity investments without readily determinable market values and records the asset at cost.

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Goodwill and Intangible Assets

Goodwill is the purchase premium after adjusting for the fair value of net assets acquired. Goodwill is not amortized but is reviewed for potential impairment on an annual basis, or when events or circumstances indicate a potential impairment, at the related reporting unit level. The goodwill impairment test involves comparing the fair value of the reporting unit with its carrying value, including goodwill. If the fair value of the reporting unit exceeds its carrying value, goodwill of the reporting unit is considered not impaired; however, if the carrying value of the reporting unit exceeds its fair value, an impairment charge must be recorded. An impairment loss recognized cannot exceed the amount of goodwill assigned to a reporting unit. An impairment loss establishes a new basis in the goodwill and subsequent reversals of goodwill impairment losses are not permitted under applicable accounting guidance.

For intangible assets subject to amortization, the recoverability test is performed when a triggering event occurs and an impairment loss is recognized if the carrying value of the intangible asset is not recoverable and exceeds fair value. The carrying value of the intangible asset is considered not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use of the asset. Intangible assets deemed to have indefinite useful lives are not subject to amortization. An impairment loss is recognized if the carrying value of the intangible asset with an indefinite life exceeds its fair value.

Intangibles subject to amortization related to the Reltco acquisition at December 31, 2017 included non-compete agreements with former employees amortized over five years and customer relationships amortized over eight years. The Reltco trade name had a carrying amount of $480 thousand as of December 31, 2017, and was the only indefinite-lived intangible asset.

On August 1, 2018 the Company financed the sale of its entire interest in Reltco, and as a result had no intangible assets as of December 31, 2018. The following table shows carrying amounts and accumulated amortization of all intangible assets as of December 31, 2017.

Amortizable intangible assets as of December 31, 2017:

	Carrying Amount	Accumulated Amortization
Non-compete agreements	$ 405	$ (74)
Customer relationships	3,900	(447)
Total	$ 4,305	$ (521)

As of October 31, 2017, it was determined that impairment existed at the Reltco reporting unit and impairment charges of $3.6 million were recorded. Impairment related charges for the years ended December 31, 2018 and 2017 are reflected in a separate line in the income statement and are comprised of the following components:

	2018	2017
Intangible assets	$3,979	$720

Goodwill	—	7,278
Other net asset dispositions	341	—
Contingent consideration liability	(1,640)	(4,350)
Total impairment expense on goodwill and other intangibles, net	$2,680	$3,648

See Note 2. Title Insurance Business for further discussion related to impairment of Reltco.

Long-Lived Assets

The Company evaluates the carrying value of rental equipment and identifiable definite lived intangible assets for impairment whenever events or circumstances have occurred that would indicate the carrying amount may not be fully recoverable. A key element in determining the recoverability of long-lived assets is the Company's outlook as to the future market conditions for its rental equipment. If the carrying amount is not fully recoverable, an impairment loss is recognized to reduce the carrying amount to fair value. The Company determines fair value based upon the condition of the rental equipment and the projected net cash flows from its rental and sale considering current market conditions. During the years ended December 31, 2018 and 2017, there were no impairments of long-lived assets.

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Notes to Consolidated Financial Statements

Impairment of Long -Lived Asset Reclassified to Held for Sale

During the fourth quarter of 2018, the Company determined that retention of one of its aircraft was ineffective in serving the needs of an expanding nationwide customer base. As a result of this determination, the Company began marketing the aircraft for sale. In December 2018, the Company received a non-binding letter of intent to purchase from a third party with expected total proceeds, net of estimated expenses, of $10.9 million. The sale is expected to close in the first quarter of 2019. The carrying amount of the aircraft of $10.5 million is reflected in the 2018 consolidated balance sheet in the "Other assets" line item. Any gain associated with the sale of the aircraft will be recorded at the time of the sale.

During 2016, the Company also recognized an impairment expense of $1.4 million related to the disposition of an aircraft, which is included in the "Other expense" line item of the 2016 consolidated statements of income.

Change in Accounting Estimate

During 2017, the Company assessed its estimate of the useful lives of the Company's aircraft transportation. The Company revised its original useful life estimate of 20 years and currently estimates that its aircraft transportation will have a useful life of 10 years. The effects of reflecting this change in accounting estimate on the 2017 consolidated financial statements are as follows:

	Year Ended December 31, 2017
Decrease in:	
Net income	$ 894
Basic EPS	$ 0.02
Diluted EPS	$ 0.02

Common Stock

On June 11, 2014, the Company amended its Articles of Incorporation to create two classes of common stock. These two classes are identified as Class A and Class B for Voting Common Stock and Non-Voting Common Stock, respectively, in the accompanying consolidated balance sheet and statement of changes in shareholders' equity. Voting and Non-Voting Common Stock holders have identical rights and privileges, with the exception that Non-Voting Common shares have no voting power unless circumstances arise where instances creating the Non-Voting Common Shares are modified in any way that negatively impact rights of holder. Stock splits or dividends of Voting and Non-Voting Common Shares shall be in like stock (voting for voting and non-voting for non-voting). Any number of Non-Voting Common Stock may be converted to an equal number of Voting Common Stock at the option of the holder; provided that holder is not the initial transferee or an affiliate of initial transferee.

Advertising Expense

Marketing costs are recognized in the month the event or advertisement takes place. These costs are included in advertising and marketing expense as presented in the consolidated statements of income.

Income Taxes

Income tax expense is the total of the current year income tax due or refundable and the change in deferred tax assets and liabilities (excluding deferred tax assets and liabilities related to business combinations or components of other comprehensive income). Deferred tax assets and liabilities are the expected future tax amounts for the temporary differences between carrying amounts and tax bases of assets and liabilities, computed using enacted tax rates. The effect of a change in tax rates on deferred assets and liabilities is recognized in income taxes during the period that includes the enactment date. A valuation allowance, if needed, reduces deferred tax assets to the expected amount more likely than not to be realized. Realization of deferred tax assets is dependent upon the level of historical income, prudent and feasible tax planning strategies, reversals of deferred tax liabilities and estimates of future taxable income.

The Company uses the flow-through method of accounting on investments that generate investment tax credits. Under this method, investment tax credits are recognized as a reduction to income tax expense immediately in the period that the credit is generated, to the extent permitted by tax law. In accounting for any temporary difference that arise, the Company has elected the income statement method whereby deferred taxes are adjusted through income tax expense.

The Company evaluates uncertain tax positions at the end of each reporting period. The Company may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefit recognized in the financial statements from any such position is measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement. For tax positions not meeting the “more likely than not” test, no tax benefit is recorded. Any interest and/or penalties related to income taxes are reported as a component of income tax expense.

Comprehensive Income

Annual comprehensive income reflects the change in the Company’s equity during the year arising from transactions and events other than investment by and distributions to shareholders. The only components of other comprehensive income consist of realized and unrealized gains and losses related to investment securities.

Stock Compensation Plans

The Company recognizes compensation cost relating to share-based payment transactions in the consolidated financial statements in accordance with GAAP. The cost is measured based on the fair value of the equity or liability instruments issued. The expense measures the cost of employee services received in exchange for stock options and restricted stock based on the grant-date fair value of the award and recognizes the cost over the vesting period as indicated in the option or restricted stock agreement. The fair value of the restricted stock awards or units with a market price condition and the implied service period over which costs are recognized are calculated using the Monte Carlo Simulation method. The impact of forfeitures on stock-based compensation expense is recognized as forfeitures occur.

Fair Value of Financial Instruments

GAAP defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The Company determines the fair values of its financial instruments based on the fair value hierarchy established per GAAP which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Investment securities available-for-sale, servicing assets, investment in a mutual fund and equity warrant assets are recorded at fair value on a recurring basis. Loans held for sale, certain equity securities, impaired loans and foreclosed assets are carried at fair value on a non-recurring basis.

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Earnings Per Share

Basic and diluted earnings per share are computed based on the weighted average number of shares outstanding during each period. Diluted earnings per share reflects the potential dilution that could occur, upon the exercise of stock options or upon the vesting of restricted stock grants, any of which would result in the issuance of common stock that would then be shared in the net income of the Company.

	December 31,		
	2018	2017	2016
Basic earnings per share:			
Net income available to common shareholders	$51,448	$100,499	$13,773
Weighted-average basic shares outstanding	40,056,230	36,592,893	34,202,168
Basic earnings per share	$1.28	$2.75	$0.40
Diluted earnings per share:			
Net income available to common shareholders, for diluted earnings per share	$51,448	$100,499	$13,773
Total weighted-average basic shares outstanding	40,056,230	36,592,893	34,202,168
Add effect of dilutive stock options and restricted stock grants	1,390,520	1,266,642	884,791
Total weighted-average diluted shares outstanding	41,446,750	37,859,535	35,086,959
Diluted earnings per share	$1.24	$2.65	$0.39
Anti-dilutive shares	1,111,236	253,338	1,777,035

Reclassifications

Certain reclassifications have been made to the prior period’s consolidated financial statements to place them on a comparable basis with the current year. Net income and shareholders’ equity previously reported were not affected by these reclassifications.

Revenue Recognition

On January 1, 2018, the Company adopted Accounting Standards Update (“ASU”) No. 2014-09 “Revenue from Contracts with Customers” (Topic 606) and all subsequent ASUs that modified Topic 606. The implementation of the new standard did not have a material impact on the measurement or recognition of revenue and a cumulative effect adjustment to opening retained earnings was not necessary. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts were not adjusted and continue to be reported in accordance with the Company's historic accounting under Topic 605.

Topic 606 does not apply to revenue associated with financial instruments, including revenue from loans and lease financings or investment securities. In addition, certain noninterest income streams such as fees associated with servicing rights, financial guarantees, derivatives, title insurance, and equity and equity security investments are also not in scope of the new guidance. Therefore, the recognition of these revenue streams did not change upon adoption of

Topic 606. Substantially all of the Company’s revenue is generated from contracts with customers. Noninterest revenue streams in-scope of Topic 606 are discussed below.

Other Noninterest Income

Other noninterest income consists of other recurring revenue streams from administration of trust assets held by the Company's trust department and from services provided by GLS to its clients for settlement, accounting and valuation for government guaranteed loan sales and holdings. Trust account administration performance obligations are generally satisfied over time and fees are recognized monthly, based on the month-end market value of assets in fiduciary accounts and the applicable fee rate. Payment is generally received after month-end through a direct charge to customers' accounts. The Company does not earn performance-based incentives from trust account administration services. GLS provides services when requested by clients. Each requested service represents a specific performance obligation with a transaction price outlined by GLS' fee schedule. Revenue is recognized as the requested services are completed and payment is generally received the following month.

Contract Balances

A contract asset balance occurs when an entity performs a service for a customer before the customer pays consideration (resulting in a contract receivable) or before payment is due (resulting in a contract asset). A contract liability balance is an entity's obligation to transfer a service to a customer for which the entity has already received payment from the customer. The Company's noninterest revenue streams are largely based on transactional activity, or standard month-end revenue accruals such as trust administration fees based on month-end market values. Consideration is often received immediately or shortly after the Company satisfies its performance obligation and revenue is recognized. The Company does not typically enter into long-term revenue contracts with customers, and therefore, does not experience significant contract balances. As of December 31, 2018 and 2017, the Company did not have any significant contract balances.

Contract Acquisition Costs

In connection with the adoption of Topic 606, an entity is required to capitalize, and subsequently amortize into expense, certain incremental costs of obtaining a contract with a customer if these costs are expected to be recovered. The incremental costs of obtaining a contract are those costs that an entity incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained (for example, sales commission). The Company utilizes the practical expedient which allows entities to immediately expense contract acquisition costs when the asset that would have resulted from capitalizing these costs would have been amortized in one year or less. Upon adoption of Topic 606, the Company did not capitalize any contract acquisition cost.

Recent Accounting Pronouncements

The following is a summary of recent authoritative pronouncements that could impact the accounting, reporting, and/or disclosure of financial information by the Company.

In January 2016, the FASB issued ASU 2016-01, "Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities" ("ASU 2016-01"). ASU 2016-01, among other things, (i) requires equity investments, with certain exceptions, to be measured at fair value with changes in fair value recognized in net income, (ii) simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment, (iii) eliminates the requirement for public business entities to disclose the methods and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet, (iv) requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes, (v) requires an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments, (vi) requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or the accompanying notes to the financial statements and (viii) clarifies that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale. The Company adopted the standard in the first quarter of 2018 with no material impact on the consolidated financial statements. In accordance with (iv) above, the Company measured the fair value of the loan and lease portfolio using an exit price notion. See Note 12. Fair Value of Financial Instruments for additional information.

In February 2016, the FASB issued ASU No. 2016-02, “Leases (Topic 842)” (“ASU 2016-02”). The FASB issued this ASU to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet by lessees for those leases classified as operating leases under current GAAP and disclosing key information about leasing arrangements. The amendments in this ASU are effective for the Company on January 1, 2019. Upon adoption of ASU 2016-02, the Company expects to recognize right-of-use assets and lease liabilities totaling between $2.0 million and $3.0 million. The Company expects to apply certain practical expedients provided under ASU 2016-02 whereby the Company will not reassess (i) whether any expired or existing contracts are or contain leases, (ii) the lease classification for any expired or existing leases and (iii) initial direct costs for any existing leases. The Company expects to apply a practical expedient to use hindsight in determining the lease term and in assessing impairment of the right of use assets. The Company also does not expect to apply the recognition and measurement requirements to any short-term leases (as defined by ASU 2016-02). The Company expects to account for lease and non-lease components separately because such amounts are readily determinable under the lease contracts. The Company further expects to utilize the modified-retrospective transition approach prescribed by ASU 2018-11 noted below.

In June 2016, the FASB issued ASU No. 2016-13, “Measurement of Credit Losses on Financial Instruments” (“ASU 2016-13”). This new guidance replaces the incurred loss impairment methodology in current standards with an expected credit loss methodology and requires consideration of a broader range of information to determine credit loss estimates. ASU 2016-13 requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions, and reasonable and supportable forecasts and requires enhanced disclosures related to the significant estimates and judgments used in estimating credit losses, as well as the credit quality and underwriting standards of an organization’s portfolio. In addition, ASU 2016-13 amends the accounting for credit losses on available-for-sale debt securities and purchased financial assets with credit deterioration. ASU 2016-13 will be effective for the Company on January 1, 2020. The Company is currently evaluating the potential impact of ASU 2016-13 on the consolidated financial statements. In that regard, a cross-functional working group has been formed, under the direction of the Company's Chief Financial Officer and Chief Credit Officer. The working group is comprised of individuals from various functional areas including credit, risk management, finance and information technology, among others. Implementation efforts continue with model development, ongoing system requirements evaluation and the identification of data and resource needs, among other things. The Company has also engaged a third-party vendor solution to assist in the application of ASU 2016-13. While the Company is currently unable to reasonably estimate the impact of adopting ASU 2016-13, the impact of adoption is expected to be significantly influenced by the composition, characteristics and quality of loan and securities portfolios as well as the prevailing economic conditions and forecasts as of the adoption date.

In January 2017, the FASB issued ASU No. 2017-01, “Business Combinations (Topic 805) - Clarifying the Definition of a Business” (“ASU 2017-01”). ASU 2017-01 clarifies the definition and provides a more robust framework to use in determining when a set of assets and activities constitutes a business. ASU 2017-01 is intended to provide guidance when evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The Company adopted the standard in the first quarter of 2018 with no effect on the consolidated financial statements.

In February 2017, the FASB issued ASU No. 2017-05, “Other Income - Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20) - Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets” (“ASU 2017-05”). ASU 2017-05 clarifies the scope of Subtopic 610-20 and adds guidance on nonfinancial asset derecognition as well as the accounting for partial sales of nonfinancial assets. The amendments conform the derecognition guidance on nonfinancial assets with the model for transactions in the new revenue standard. The Company adopted the standard in the first quarter of 2018 with no effect on the consolidated financial statements.

In March 2017, the FASB issued ASU No. 2017-08, “Receivables – Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities” (“ASU 2017-08”). ASU 2017-08 shortens the amortization period for certain callable debt securities held at a premium, as the premium must be amortized to the earliest call date. The amendments are effective for the Company on January 1, 2019 with early adoption permitted. The Company does not expect these amendments to have a material effect on its consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, “Compensation - Stock Compensation (Topic 718) - Scope of Modification Accounting” (“ASU 2017-09”). ASU 2017-09 clarifies when changes to the terms or conditions of a share-based payment award should be accounted for as a modification. This guidance indicates modification accounting is required when the fair value, vesting conditions, or classification of the award changes. The Company adopted the standard in the first quarter of 2018 with no effect on the consolidated financial statements.

In February 2018, the FASB issued ASU No. 2018-02, “Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income” (“ASU 2018-02”). ASU 2018-02 addresses the income tax accounting treatment of the stranded tax effects within other comprehensive income. The ASU allows for an entity to reclassify the stranded tax effects resulting from the Tax Cuts and Jobs Act from accumulated other comprehensive income to retained earnings. ASU 2018-02 will be effective for the Company on January 1, 2019, with early adoption permitted. The Company early adopted ASU 2018-02 in the first quarter of 2018 and reclassified its stranded tax credit of $244 thousand within accumulated other comprehensive income to retained earnings at March 31, 2018.

In February 2018, the FASB issued ASU No. 2018-03, “Technical Corrections and Improvements to Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities” (“ASU 2018-03”). ASU 2018-03 amendments clarify certain aspects of the guidance issued in ASU 2016-01. The amendments are effective for the Company for fiscal year 2018 with adoption as of July 1, 2018. The Company adopted the standard in the third quarter of 2018 with no material impact on the consolidated financial statements.

In March 2018, the FASB issued ASU No. 2018-05, “Income Taxes (Topic 740) - Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin (SAB) No. 118” (“ASU 2018-05”). ASU 2018-05 amends Accounting Standard Codification 740 to include recent SEC guidance pursuant to the issuance of SAB 118. These amendments address situations when a registrant does not have the necessary information available, prepared, or analyzed in reasonable detail to complete the accounting for certain income tax effects of the Tax Cuts and Jobs Act. The amendments were effective upon issuance and do not have a material effect on the Company's consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, “Compensation - Stock Compensation (Topic 718) Improvements to Nonemployee Share-Based Payment Accounting” (“ASU 2018-07”). ASU 2018-07 amends Accounting Standard Codification 718 to largely align accounting for share-based payment awards issued to employees and nonemployees. Under the new guidance, existing employee guidance will generally apply to nonemployee share-based transactions, except for specific guidance on inputs into option pricing models and the attribution of cost. The amendments are effective for the Company on January 1, 2019 with early adoption permitted. The Company does not expect these amendments to have a material effect on its consolidated financial statements.

In July 2018, the FASB issued ASU No. 2018-10, “Codification Improvements to Topic 842, Leases” (“ASU 2018-10”). ASU 2018-10 provides clarification on narrow aspects to Topic 842 and to correct unintended application of the guidance. The amendments are effective for the Company on January 1, 2019. See ASU 2016-02 for discussion of implementation efforts.

In July 2018, the FASB issued ASU No. 2018-11, “Leases (Topic 842) Targeted Improvements” (“ASU 2018-11”). ASU 2018-11 provides an additional transition method to adopt ASU 2016-02. The transition method allows an entity to apply ASU 2016-02 at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. An entity that elects this transition method must provide required disclosures under Topic 840 for all periods that are in accordance with Topic 840. ASU 2018-11 also provides lessors with a practical expedient to not separate non-lease components from lease components by class of underlying asset. The amendments in this ASU are effective for the Company on January 1, 2019. See ASU 2016-02 for discussion of implementation efforts.

In August 2018, the FASB issued ASU No. 2018-13, “Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement” (“ASU 2018-13”). ASU 2018-13 removes, modifies and adds certain fair value disclosure requirements on fair value measurements. The amendments are effective for the Company on January 1, 2020 with early adoption permitted. The Company does not expect these amendments to have a material effect on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, “Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract” (“ASU 2018-15”). ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The amendments are effective for the Company on January 1, 2020 with early adoption permitted. The Company is currently assessing the effect that the adoption of this standard will have on the consolidated financial statements.

In October 2018, the FASB issued ASU No. 2018-16, “Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes” (“ASU 2018-16”). ASU 2018-16 expands the list of U.S. benchmark interest rates permitted in the application of hedge accounting to include the OIS rate based on SOFR. ASU 2018-16 will be effective for the Company on January 1, 2019 and is not expected to have a significant impact on its consolidated financial statements.

In December 2018, the FASB issued ASU No, 2018-20, “Narrow Scope Improvements for Lessors” (“ASU 2018-20”). ASU 2018-20 contains updates for easing how equipment and property lessors apply the new lease accounting standard which includes relief in (i) the accounting for sales, use and similar taxes, (ii) the accounting for other costs paid by a lessee that may benefit a lessor and (iii) the recognition of variable payments when contracts have lease and non-lease components. The amendments in this ASU are effective for the Company on January 1, 2019 and is not expected to have a significant impact on its consolidated financial statements.

Other accounting standards that have been issued or proposed by the FASB or other standards-setting bodies are not expected to have a material impact on the Company’s balance sheets, statements of income or cash flows.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Note 2. Title Insurance Business

Business Combination

On February 1, 2017, the Company completed its acquisition of Reltco, Inc. and National Assurance Title, Inc. (collectively referred to as "Reltco"), two nationwide title agencies under common control based in Tampa, Florida. The acquisition was expected to complement the Company's growth strategy, including vertically integrating with parallel services to deliver a high-quality customer experience with speed.

On the acquisition date, the fair value of Reltco included $5.8 million in assets and $4.7 million in liabilities. The total acquisition gross consideration at the time of the transaction, including earn-out contingent consideration was approximately $15.8 million. The acquisition was valued at $12.7 million after consideration of the applicable fair value adjustments to the earn-out, resulting in the Company paying $7.8 million in cash and issuing 27,724 shares of its common stock at closing in addition to an earn-out of up to 184,012 shares of its stock and $3.8 million in cash, in exchange for all of the outstanding shares of Reltco. The earn-out was recorded as a $4.3 million contingent liability on the acquisition date and is earned proportionally based on the ratio of the new subsidiary's actual future aggregate net income after tax divided by a target net income after tax of approximately $6.0 million over the four year earn-out period. Fair value measurement of the earn-out was calculated using the Monte Carlo Simulation. The Monte Carlo Simulation simulates 100,000 trials to assess the expected market price as of the earn-out measurement date at the end of each of the next four years based on the Cox, Ross & Rubinstein option pricing methodology. The Monte Carlo Simulation utilized various assumptions that include a risk free rate of return through the end of each measurement period equivalent to that of a U.S. Treasury, expected volatility of 30.00% over four years and a dividend yield of 0.40%.

The merger was accounted for in accordance with the acquisition method of accounting, and the identifiable assets acquired and liabilities assumed were recorded at their estimated fair values as of the acquisition date separately from goodwill. The estimated fair values of assets acquired and liabilities assumed are based on the information available at the date of the acquisition. Management continues to evaluate these fair values, which are subject to revision as additional information becomes available. Contingent consideration is recorded at fair value based on the terms of the purchase agreement with subsequent quarterly changes in fair value recorded through earnings. The fair value of contingent consideration upon acquisition was $4.3 million and increased by $350 thousand during the period leading up to the October 31, 2017 impairment assessment date discussed below. During this pre-impairment assessment period fair value was estimated using the Monte Carlo Simulation. The assumptions utilized include a risk-free rate of return through the end of each measurement period equivalent to that of a U.S. Treasury, expected volatility of 30.00% over the remaining 3.25 years and a dividend yield of 0.51%.

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The following table summarizes the allocation of the purchase price on the date of acquisition to assets acquired and the liabilities assumed based on their estimated fair values:

Fair value of assets acquired	
Cash	$102
Accounts receivable	159
Intangible assets	5,505
Total assets acquired	5,766
Fair value of liabilities assumed	
Contingent consideration	4,300
Accounts payable and other liabilities	381
Total liabilities assumed	4,681
Net assets acquired	$1,085
Purchase price	
Common shares issued	27,724
Purchase price per share of the Company's common stock	$20.38
Company common stock issued	565
Cash	$7,798
Total purchase price	8,363
Goodwill	$7,268

Goodwill recorded represents future revenues and efficiencies gained through the Reltco acquisition. At the date of acquisition, intangible assets consisted of trade names of $1.2 million, customer relationships of $3.9 million, and non-compete agreements of $405 thousand.

The Company recorded no merger expenses for the year ended December 31, 2018, $766 thousand and $115 thousand for the years ended December 31, 2017 and 2016, respectively, related to the Reltco acquisition.

Goodwill and Intangible Asset Impairment

Goodwill and intangible assets are evaluated for potential impairment annually or when circumstances indicate potential impairment may have occurred. Impairment losses, if any, are determined based upon the excess of carrying value over the estimated fair value of the asset.

As of October 31, 2017, the Company determined that its goodwill and certain intangible assets related to the Reltco business combination had indications of impairment. Reltco's financial performance was significantly lower during the first nine-months of operations and expectations of future profitability for the reporting unit were also lower than originally expected due to a slowing of refinance activity in the mortgage industry. The slowing of refinance activity in the mortgage industry was largely driven by increased levels of market rates during 2017.

In performing the goodwill impairment testing and measurement process to identify possible impairment, the estimated fair value of the Reltco reporting unit was developed using the income and market approaches to value

Reltco. The income approach consisted of discounting projected long-term future cash flows, which are derived from internal forecasts and economic expectations for Reltco. The market valuation approach utilized revenue and EBITDA multiples from comparable market transactions.

The results of the impairment test indicated that the estimated fair value of Reltco was less than book value which resulted in a goodwill impairment charge of $7.3 million in accordance with accounting for Intangibles, Goodwill and other under ASC 360. This non-cash goodwill impairment charge to earnings was recorded as a component of impairment expense on goodwill and other intangibles in the consolidated statement of income.

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While the intangibles subject to amortization were determined to be recoverable based on an undiscounted cash flow analysis, impairment of $720 thousand was realized for indefinite life tradenames. This non-cash intangible impairment charge to earnings was recorded as a component of impairment expense on goodwill and other intangibles in the consolidated statement of income.

The following is a summary of activity in goodwill for the Reltco reporting unit:

Balance, December 31, 2016	$—
Goodwill acquired during 2017	7,278
Accumulated impairment losses	(7,278)
Balance, December 31, 2017	$—

As a result of Reltco's 2017 results of operations and the direct contractual inclusion of impairment losses in the determination of earn out consideration, the fair value of the contingent consideration decreased by $4.4 million, which is recorded as a component of impairment expense on goodwill and other intangibles in the consolidated statement of income. The Company subsequently modified the acquisition contract in 2017 to change the definition of net income related to the earn-out contingent consideration which resulted in $1.6 million in salaries and employee benefit expense.

Fair value of contingent consideration was estimated using the Monte Carlo Simulation. The assumptions utilized in the determining the impact of the impairment assessment and subsequent purchase contract modification include a risk-free rate of return through the end of each measurement period equivalent to that of a U.S. Treasury, expected volatility of 25.00% over the remaining 3.00 years and a dividend yield of 0.51%.

On August 1, 2018, the Company financed the sale of its entire interest in Reltco for $3.0 million. The Company's divestiture was driven by expectations of future profitability under current market conditions impacting the mortgage industry.

Following is a summary of activity in contingent consideration for the Reltco reporting unit:

Balance, December 31, 2016	$—
Contingent consideration recorded upon acquisition	4,300
Fair value adjustments prior to October 31, 2017 impairment assessment	350
Impact of impairment assessment	(4,350)

Effect of purchase contract modification	1,600
Balance, December 31, 2017	1,900
Fair value adjustments prior to August 1, 2018 sale	(260)
Impact of sale on August, 1 2018	(1,640)
Balance, December 31, 2018	$—

Note 3. Unconsolidated Joint Venture

On October 1, 2017, the Company closed a digital banking joint venture between Live Oak Banking Company and First Data Corporation ("First Data"). The new company, Apiture, LLC (“Apiture”), combined First Data's and the Bank's digital banking platforms, products, services, and certain human resources used in the creation and delivery of technology solutions for financial institutions. The contributed assets of both the Company and First Data were considered businesses in accordance with relevant accounting standards. At closing both the Bank and First Data received equal voting interests in Apiture in exchange for their respective contributions. As a term of the closing agreements, First Data was entitled to a preference in Apiture's cash earnings from the date of closing through December 31, 2017 and all of 2018, not to exceed $18.0 million and $18.9 million, respectively.

As a result of this transaction, the Company and First Data each received, directly or indirectly, equal voting interests in Apiture. In addition, the Company analyzed the Contribution Agreement and determined that Apiture is not a variable interest entity. The Company also considered the partners' participating rights under the Contribution Agreement and determined that the joint venture partners have the ability to participate in major decisions, which equates to shared decision making. Accordingly, the Bank has significant influence but does not control the joint venture. Therefore, the joint venture has been accounted for as an equity method investment. Under the equity method of accounting, the net equity investment of the Bank and the Bank's share of net income or loss from the unconsolidated entity will be reflected in the Company's consolidated balance sheets and the consolidated statements of income.

The estimated fair value of Apiture at the date of the 2017 closing was approximately $150 million. Based on the aforementioned cash earnings preference to First Data during 2017 and 2018, the valuation of equity interests received in exchange for contributions by the two initial investors was unequal. As a consequence of this preference, the initial economic interest in Apiture for First Data was equal to 54.7% or $82.0 million, while the Company's initial economic interest in Apiture was equal to 45.3%, or $68.0 million. As the Company had no carrying amount for its contribution in the formation of Apiture, the transaction on October 1, 2017 resulted in the recognition of a $68.0 million equity method investment included in other assets on the consolidated balance sheet and a one-time pre-tax gain of the same amount reflected in gain on contribution to equity method investment on the consolidated income statement at the date of closing. The estimated fair value of Apiture and the related initial economic interests of investors were based on a discounted cash flows which are inherently subjective by nature.

As a result of unequal economic interests arising from the cash earnings preference, distribution rights and priorities set forth in the Contribution Agreement differ from what is reflected by the underlying percentage voting interests of First Data and Live Oak. Accordingly, GAAP income (loss) is allocated utilizing the hypothetical liquidation at book value ("HLBV") method. Under the HLBV method, we allocate income or loss based on the change in each unitholders' claim on the net assets of Apiture at period end, after adjusting for any distributions or contributions made during such period. The HLBV method is commonly applied to equity investments where cash distribution percentages vary at different points in time and are not directly linked to an equity holder's ownership percentage.

The HLBV method is a balance sheet-focused approach. A calculation is prepared at each balance sheet date to determine the amount that unitholders would receive if Apiture were to liquidate all of its assets (at GAAP net book value) and distribute the resulting proceeds to its creditors and unitholders based on the contractually defined liquidation priorities. The difference between the calculated liquidation distribution amounts at the beginning and the end of the reporting period, after adjusting for capital contributions and distributions, is used to derive each unitholder's share of the income (loss) for the period. Due to the stated cash earnings preference to First Data and because the HLBV method incorporates non-cash items such as amortization expense, in any given period, income or loss may be allocated disproportionately to unitholders as compared to their respective ownership percentage in our operating partnership, and net income (loss) attributable to the Bank could be more or less net income than actual cash distributions received and more or less income (loss) than what may be received in the event of an actual liquidation. Additionally, the HLBV method could result in no net income attributable to the Company during a period when Apiture reports net income. During 2017 and 2018, the Company recognized no net income or loss from operations as a result of its investment in Apiture.

In the third quarter of 2018 Apiture sold additional units, representing 5.24% ownership, to a third-party investor in exchange for cash. As a result of this transaction the Company recognized a $1.1 million gain upon dilution of its

investment which is included in the “Other Noninterest Income” line of the 2018 consolidated statement of income. The Company has evaluated the new and existing partners’ participating rights under Apiture’s governing documents and determined that equity method investment accounting continues to be appropriate.

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Notes to Consolidated Financial Statements

Note 4. Securities

The carrying amount of securities and their approximate fair values are reflected in the following table:

December 31, 2018	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
US treasury securities	$4,969	$ —	$ 3	$4,966
US government agencies	31,121	48	225	30,944
Residential mortgage-backed securities	345,606	1,340	3,365	343,581
Municipal bond	1,000	—	1	999
Total	$382,696	$ 1,388	$ 3,594	$380,490
December 31, 2017				
US government agencies	$22,778	$ 3	$ 157	$22,624
Residential mortgage-backed securities	70,167	1	1,472	68,696
Mutual fund (1)	2,090	—	55	2,035
Total	$95,035	$ 4	$ 1,684	$93,355

(1) The mutual fund was reclassified from investment securities available-for-sale to other assets in accordance with the adoption of ASU 2016-01.

There were no sales of securities during the year ended December 31, 2018 and 2017.

One security was sold for $1.9 million resulting in a net gain of $1 thousand during the year ended December 31, 2016.

The following tables show gross unrealized losses and fair value, aggregated by investment category and length of time that the individual securities have been in a continuous unrealized loss position.

	Less Than 12 Months		12 Months or More		Total	
December 31, 2018	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
US treasury securities	$4,966	$ 3	$—	$ —	$4,966	$ 3
US government agencies	—	—	16,268	225	16,268	225
Residential mortgage-backed securities	164,836	1,177	51,371	2,188	216,207	3,365

Municipal bond	999	1	—	—	999	1
Total	$170,801	$ 1,181	$67,639	$ 2,413	$238,440	$ 3,594

	Less Than 12 Months		12 Months or More		Total	
December 31, 2017	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
US government agencies	$14,842	$ 100	$6,465	$ 57	$21,307	$ 157
Residential mortgage-backed securities	23,481	439	40,648	1,033	64,129	1,472
Mutual fund	—	—	2,035	55	2,035	55
Total	$38,323	$ 539	$49,148	$ 1,145	$87,471	$ 1,684

At December 31, 2018, there were thirty-one residential mortgage-backed securities and six US government agencies in unrealized loss positions for greater than 12 months and twenty-five residential mortgage-backed securities, one US treasury security and one municipal bond in unrealized loss positions for less than 12 months. Unrealized losses at December 31, 2017 consisted of twenty-three residential mortgage-backed securities, three US government agencies and the 504 mutual fund in unrealized loss positions for greater than 12 months and eight residential mortgage-backed securities and five US government agency securities in unrealized loss positions for less than 12 months.

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These unrealized losses are primarily the result of volatility in the market and are related to market interest rates. Since none of the unrealized losses relate to marketability of the securities or the issuer's ability to honor redemption obligations, and the Company has the intent and ability to hold these securities until they recover their value, none of the securities are deemed to be other than temporarily impaired.

All residential mortgage-backed securities in the Company's portfolio at December 31, 2018 and 2017 were backed by US government sponsored enterprises ("GSEs").

The following is a summary of investment securities by maturity:

	December 31, 2018 Available-for-sale	
	Amortized cost	Fair value
US treasury securities		
One to five years	$4,969	$4,966
Total	4,969	4,966
US government agencies		
Within one year	3,968	3,938
One to five years	27,153	27,006
Total	31,121	30,944
Residential mortgage-backed securities		
One to five years	3,424	3,298
Five to ten years	48,088	47,685
After 10 years	294,094	292,598
Total	345,606	343,581
Municipal bond		
After 10 years	1,000	999
Total	1,000	999
Total	$382,696	$380,490

The table above reflects contractual maturities. Actual results will differ as the loans underlying the mortgage-backed securities may repay sooner than scheduled.

At December 31, 2018 and 2017, investment securities with a fair market value of $2.5 million were pledged to the Company's trust department for uninsured trust assets held by the trust department and $100 thousand was pledged to the Ohio State Treasurer to allow the Company's trust department to conduct business in the State of Ohio.

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Notes to Consolidated Financial Statements

Note 5. Loans and Leases Held for Investment and Allowance for Loan and Lease Losses

Loan and Lease Portfolio Segments

The following describes the risk characteristics relevant to each of the portfolio segments. Each loan and lease category is assigned a risk grade during the origination and closing process based on criteria described later in this section.

Commercial and Industrial

Commercial and industrial loans (C&I) receive similar underwriting treatment as commercial real estate loans in that the repayment source is analyzed to determine its ability to meet cash flow coverage requirements as set forth by Bank policies. Repayment of the Bank's C&I loans generally comes from the generation of cash flow as the result of the borrower's business operations. This business cycle itself brings a certain level of risk to the portfolio. In some instances, these loans may carry a higher degree of risk due to a variety of reasons – illiquid collateral, specialized equipment, highly depreciable assets, uncollectable accounts receivable, revolving balances, or simply being unsecured. As a result of these characteristics, the SBA guarantee on these loans is an important factor in mitigating risk.

Construction and Development

Construction and development loans are for the purpose of acquisition and development of land to be improved through the construction of commercial buildings. Such loans are usually paid off through the conversion to permanent financing for the long-term benefit of the borrower's ongoing operations. At the completion of the project, if the loan is converted to permanent financing or if scheduled loan amortization begins, it is then reclassified to the "Commercial Real Estate" segment. Underwriting of construction and development loans typically includes analysis of not only the borrower's financial condition and ability to meet the required debt obligations, but also the general market conditions associated with the area and type of project being funded.

Commercial Real Estate

Commercial real estate loans are extensions of credit secured by owner occupied and non-owner occupied collateral. Underwriting generally involves intensive analysis of the financial strength of the borrower and guarantor, liquidation value of the subject collateral, the associated unguaranteed exposure, and any available secondary sources of repayment, with the greatest emphasis given to a borrower's capacity to meet cash flow coverage requirements as set forth by Bank policies. Such repayment of owner occupied loans is commonly derived from the successful ongoing operations of the business occupying the property. These typically include small businesses and professional practices.

Commercial Land

Commercial land loans are extensions of credit secured by farmland. Such loans are often for land improvements related to agricultural endeavors that may include construction of new specialized facilities. These loans are usually repaid through the conversion to permanent financing, or if scheduled loan amortization begins, for the long-term benefit of the borrower's ongoing operations. Underwriting generally involves intensive analysis of the financial strength of the borrower and guarantor, liquidation value of the subject collateral, the associated unguaranteed

exposure, and any available secondary sources of repayment, with the greatest emphasis given to a borrower's capacity to meet cash flow coverage requirements as set forth by Bank policies.

Each of the loan types referenced in the sections above is further segmented into verticals in which the Bank chooses to operate. The Bank chooses to finance businesses operating in specific industries because of certain similarities. The similarities range from historical default and loss characteristics to business operations. However, there are differences that create the necessity to underwrite these loans according to varying criteria and guidelines. When underwriting a loan, the Bank considers numerous factors such as cash flow coverage, the credit scores of the guarantors, revenue growth, practice ownership experience and debt service capacity. Minimum guidelines have been set with regard to these various factors and deviations from those guidelines require compensating strengths when considering a proposed loan.

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Loans and leases consist of the following:

	December 31, 2018	December 31, 2017
Commercial & Industrial		
Agriculture	$ 6,400	$ 3,274
Death Care Management	17,378	13,495
Healthcare	51,082	43,301
Independent Pharmacies	108,783	99,920
Registered Investment Advisors	94,338	93,770
Veterinary Industry	45,604	46,387
Other Industries	295,163	184,903
Total	618,748	485,050
Construction & Development		
Agriculture	43,454	34,188
Death Care Management	9,874	6,119
Healthcare	81,619	49,770
Independent Pharmacies	2,149	1,496
Registered Investment Advisors	1,232	376
Veterinary Industry	14,094	13,184
Other Industries	96,482	58,120
Total	248,904	163,253
Commercial Real Estate		
Agriculture	53,085	46,717
Death Care Management	71,344	67,381
Healthcare	188,531	126,631
Independent Pharmacies	20,597	19,028
Registered Investment Advisors	7,905	11,789
Veterinary Industry	136,721	113,932
Other Industries	260,847	134,172
Total	739,030	519,650
Commercial Land		
Agriculture	243,798	178,897
Total	243,798	178,897
Total Loans and Leases [1]	1,850,480	1,346,850
Net Deferred Costs	5,960	8,545
Discount on SBA 7(a) and USDA Unguaranteed [2]	(13,021)	(11,422)
Loans and Leases, Net of Unearned	$ 1,843,419	$ 1,343,973

1 Total loans and leases include $305.4 million and $99.7 million of U.S. government guaranteed loans as of December 31, 2018 and December 31, 2017, respectively.

2 The Company measures the carrying value of the retained portion of loans sold at fair value under ASC Subtopic 825-10. The value of these retained loan balances is discounted based on the estimates derived from comparable unguaranteed loan sales.

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Credit Risk Profile

The Bank uses internal loan and lease reviews to assess the performance of individual loans and leases by industry segment. An independent review of the loan and lease portfolio is performed annually by an external firm. The goal of the Bank's annual review of each borrower's financial performance is to validate the adequacy of the risk grade assigned.

The Bank uses a grading system to rank the quality of each loan and lease. The grade is periodically evaluated and adjusted as performance dictates. Loan and lease grades 1 through 4 are passing grades and grade 5 is special mention. Collectively, grades 6 through 8 represent classified loans and leases in the Bank's portfolio. The following guidelines govern the assignment of these risk grades:

Exceptional (1 Rated): These loans and leases are of the highest quality, with strong, well-documented sources of repayment. Debt service coverage ("DSC") is over 2.00X based on historical results. Borrower has ownership experience and has demonstrated excellent revenue growth and/or profitability. Guarantors have credit scores above 750 and have strong personal liquidity.

Quality (2 Rated): These loans and leases are of good quality, with good, well-documented sources of repayment. DSC is over 1.74X based on historical results. Borrower has ownership experience and has demonstrated very good revenue growth and/or profitability. Guarantors have credit scores above 724 and have good personal liquidity.

Acceptable (3 rated): These loans and leases are of acceptable quality, with acceptable sources of repayment. DSC of over 1.24X based on historical or pro-forma results. Companies that do not meet these credit metrics must be evaluated to determine if they should be graded below this level.

Acceptable (4 rated): These loans and leases are considered very weak pass. These loans and leases are riskier than a 3-rated credit, but due to various mitigating factors are not considered a Special Mention or worse. The mitigating factors must clearly be identified to offset further downgrade. Examples of loans and leases that may be put in this category include start-up loans and leases and loans and leases with less than 1:1 cash flow coverage with other sources of repayment.

Special mention (5 rated): These loans and leases are considered as emerging problems, with potentially unsatisfactory characteristics. These loans and leases require greater management attention. A loan or lease may be put into this category if the Bank is unable to obtain financial reporting from a company to fully evaluate its position.

Substandard (6 rated): Loans and leases graded Substandard are inadequately protected by current sound net worth, paying capacity of the borrower, or pledged collateral. They typically have unsatisfactory characteristics causing more than acceptable levels of risk, and have one or more well-defined weaknesses that could jeopardize the repayment of the debt.

Doubtful (7 rated): Loans and leases graded Doubtful have inherent weaknesses that make collection or liquidation in full questionable. Loans and leases graded Doubtful must be placed on non-accrual status.

Loss (8 rated): Loss rated loans and leases are considered uncollectible and of such little value that their continuance as an active Bank asset is not warranted. The asset should be charged off, even though partial recovery may be

possible in the future.

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The following tables summarize the risk grades of each category:

	Risk Grades	Risk Grade	Risk Grades	
December 31, 2018	1 - 4	5	6 - 8	Total
Commercial & Industrial				
Agriculture	$6,187	$213	$—	$6,400
Death Care Management	17,085	287	6	17,378
Healthcare	38,908	2,502	9,672	51,082
Independent Pharmacies	93,976	5,734	9,073	108,783
Registered Investment Advisors	88,614	2,381	3,343	94,338
Veterinary Industry	42,175	1,190	2,239	45,604
Other Industries	272,771	18,463	3,929	295,163
Total	559,716	30,770	28,262	618,748
Construction & Development				
Agriculture	43,454	—	—	43,454
Death Care Management	9,874	—	—	9,874
Healthcare	79,814	1,805	—	81,619
Independent Pharmacies	2,149	—	—	2,149
Registered Investment Advisors	1,232	—	—	1,232
Veterinary Industry	14,094	—	—	14,094
Other Industries	96,482	—	—	96,482
Total	247,099	1,805	—	248,904
Commercial Real Estate				
Agriculture	52,518	567	—	53,085
Death Care Management	64,487	3,711	3,146	71,344
Healthcare	161,026	7,696	19,809	188,531
Independent Pharmacies	12,509	2,495	5,593	20,597
Registered Investment Advisors	7,780	125	—	7,905
Veterinary Industry	117,879	4,205	14,637	136,721
Other Industries	255,651	5,196	—	260,847
Total	671,850	23,995	43,185	739,030
Commercial Land				
Agriculture	223,826	8,914	11,058	243,798
Total	223,826	8,914	11,058	243,798
Total[1]	$1,702,491	$65,484	$82,505	$1,850,480

Live Oak Bancshares, Inc.

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December 31, 2017	Risk Grades 1 - 4	Risk Grade 5	Risk Grades 6 - 8	Total
Commercial & Industrial				
Agriculture	$3,052	$222	$—	$3,274
Death Care Management	13,371	117	7	13,495
Healthcare	36,530	2,246	4,525	43,301
Independent Pharmacies	86,152	5,541	8,227	99,920
Registered Investment Advisors	90,911	2,134	725	93,770
Veterinary Industry	42,313	1,704	2,370	46,387
Other Industries	184,540	363	—	184,903
Total	456,869	12,327	15,854	485,050
Construction & Development				
Agriculture	31,738	2,450	—	34,188
Death Care Management	6,119	—	—	6,119
Healthcare	47,813	699	1,258	49,770
Independent Pharmacies	1,496	—	—	1,496
Registered Investment Advisors	376	—	—	376
Veterinary Industry	13,184	—	—	13,184
Other Industries	58,120	—	—	58,120
Total	158,846	3,149	1,258	163,253
Commercial Real Estate				
Agriculture	46,717	—	—	46,717
Death Care Management	60,671	3,881	2,829	67,381
Healthcare	112,321	9,992	4,318	126,631
Independent Pharmacies	15,641	1,825	1,562	19,028
Registered Investment Advisors	11,649	140	—	11,789
Veterinary Industry	97,065	2,948	13,919	113,932
Other Industries	133,493	679	—	134,172
Total	477,557	19,465	22,628	519,650
Commercial Land				
Agriculture	176,811	2,086	—	178,897
Total	176,811	2,086	—	178,897
Total[1]	$1,270,083	$37,027	$39,740	$1,346,850

1 Total loans and leases include $305.4 million of U.S. government guaranteed loans as of December 31, 2018, segregated by risk grade as follows: Risk Grades 1 – 4 = $236.1 million, Risk Grade 5 = $10.1 million, Risk Grades 6 – 8 = $59.2 million. As of December 31, 2017, total loans and leases include $99.7 million of U.S. government guaranteed loans, segregated by risk grade as follows: Risk Grades 1 – 4 = $65.0 million, Risk Grade 5 = $6.7 million, Risk Grades 6 – 8 = $28.0 million.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Past Due Loans and Leases

Loans and leases are considered past due if the required principal and interest payments have not been received as of the date such payments were due. Loans and leases less than 30 days past due and accruing are included within current loans and leases shown below. The following tables show an age analysis of past due loans and leases as of the dates presented.

December 31, 2018	Less Than 30 Days Past Due & Not Accruing	30-89 Days Past Due & Accruing	30-89 Days Past Due & Not Accruing	Greater Than 90 Days Past Due	Total Not Accruing & Past Due	Current	Total Loans and Leases	90 Days or More Past Due & Still Accruing
Commercial & Industrial								
Agriculture	$ —	$ —	$ —	$ —	$ —	$ 6,400	$ 6,400	$ —
Death Care Management	—	—	—	—	—	17,378	17,378	—
Healthcare	41	1,027	665	6,821	8,554	42,528	51,082	—
Independent Pharmacies	1,399	29	—	7,570	8,998	99,785	108,783	—
Registered Investment Advisors	—	232	320	2,741	3,293	91,045	94,338	—
Veterinary Industry	—	—	600	906	1,506	44,098	45,604	—
Other Industries	2,669	166	—	504	3,339	291,824	295,163	—
Total	4,109	1,454	1,585	18,542	25,690	593,058	618,748	—
Construction & Development								
Agriculture	—	—	—	—	—	43,454	43,454	—
Death Care Management	—	—	—	—	—	9,874	9,874	—
Healthcare	—	—	—	—	—	81,619	81,619	—
Independent Pharmacies	—	—	—	—	—	2,149	2,149	—
Registered Investment Advisors	—	—	—	—	—	1,232	1,232	—
Veterinary Industry	—	—	—	—	—	14,094	14,094	—
Other Industries	—	—	—	—	—	96,482	96,482	—
Total	—	—	—	—	—	248,904	248,904	—

Commercial Real Estate								
Agriculture	—	—	—	—	—	53,085	53,085	—
Death Care Management	248	—	—	2,762	3,010	68,334	71,344	—
Healthcare	42	1,668	—	7,417	9,127	179,404	188,531	—
Independent Pharmacies	—	3,400	—	2,193	5,593	15,004	20,597	—
Registered Investment Advisors	—	—	—	—	—	7,905	7,905	—
Veterinary Industry	1,644	3,757	2,899	5,191	13,491	123,230	136,721	—
Other Industries	—	10,743	—	—	10,743	250,104	260,847	—
Total	1,934	19,568	2,899	17,563	41,964	697,066	739,030	—
Commercial Land								
Agriculture	6,277	—	—	4,781	11,058	232,740	243,798	—
Total	6,277	—	—	4,781	11,058	232,740	243,798	—
Total[1]	$ 12,320	$ 21,022	$ 4,484	$ 40,886	$ 78,712	$ 1,771,768	$ 1,850,480	$ —

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

December 31, 2017	Less Than 30 Days Past Due & Not Accruing	30-89 Days Past Due & Accruing	30-89 Days Past Due & Not Accruing	Greater Than 90 Days Past Due	Total Not Accruing & Past Due	Current	Total Loans and Leases	90 Days or More Past Due & Still Accruing
Commercial & Industrial								
Agriculture	$ —	$ —	$ —	$—	$ —	$3,274	$3,274	$ —
Death Care Management	—	—	—	—	—	13,495	13,495	—
Healthcare	788	131	14	3,004	3,937	39,364	43,301	—
Independent Pharmacies	236	2,930	1,349	3,376	7,891	92,029	99,920	—
Registered Investment Advisors	—	321	—	—	321	93,449	93,770	—
Veterinary Industry	212	594	508	797	2,111	44,276	46,387	—
Other Industries	—	—	—	—	—	184,903	184,903	—
Total	1,236	3,976	1,871	7,177	14,260	470,790	485,050	—
Construction & Development								
Agriculture	—	—	—	—	—	34,188	34,188	—
Death Care Management	—	—	—	—	—	6,119	6,119	—
Healthcare	—	—	—	—	—	49,770	49,770	—
Independent Pharmacies	—	—	—	—	—	1,496	1,496	—
Registered Investment Advisors	—	—	—	—	—	376	376	—
Veterinary Industry	—	—	—	—	—	13,184	13,184	—
Other Industries	—	—	—	—	—	58,120	58,120	—
Total	—	—	—	—	—	163,253	163,253	—
Commercial Real Estate								
Agriculture	—	—	—	—	—	46,717	46,717	—
Death Care Management	—	—	168	1,391	1,559	65,822	67,381	—
Healthcare	40	54	1,916	1,550	3,560	123,071	126,631	—

Independent Pharmacies	—	—	—	1,562	1,562	17,466	19,028	—
Registered Investment Advisors	—	—	—	—	—	11,789	11,789	—
Veterinary Industry	1,804	3,226	—	4,765	9,795	104,137	113,932	—
Other Industries	—	—	—	—	—	134,172	134,172	—
Total	1,844	3,280	2,084	9,268	16,476	503,174	519,650	—
Commercial Land								
Agriculture	—	—	—	—	—	178,897	178,897	—
Total	—	—	—	—	—	178,897	178,897	—
Total[1]	$ 3,080	$ 7,256	$ 3,955	$ 16,445	$ 30,736	$ 1,316,114	$ 1,346,850	$ —

1 Total loans and leases include $305.4 million of U.S. government guaranteed loans as of December 31, 2018, of which $33.4 million is greater than 90 days past due, $9.0 million is 30-89 days past due and $263.0 million is included in current loans and leases as presented above. As of December 31, 2017, total loans and leases include $99.7 million of U.S. government guaranteed loans, of which $15.0 million is greater than 90 days past due, $7.4 million is 30-89 days past due and $77.3 million is included in current loans and leases as presented above.

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Notes to Consolidated Financial Statements

Nonaccrual Loans and Leases

Loans and leases that become 90 days delinquent, or in cases where there is evidence that the borrower's ability to make the required payments is impaired, are placed in nonaccrual status and interest accrual is discontinued. If interest on nonaccrual loans and leases had been accrued in accordance with the original terms, interest income would have increased by approximately $2.8 million, $1.1 million and $622 thousand for the years ended December 31, 2018, 2017, and 2016, respectively. All nonaccrual loans and leases are included in the held for investment portfolio.

Nonaccrual loans and leases as of December 31, 2018 and December 31, 2017 are as follows:

December 31, 2018	Loan and Lease Balance	Guaranteed Balance	Unguaranteed Exposure
Commercial & Industrial			
Healthcare	$7,527	$ 6,517	$ 1,010
Independent Pharmacies	8,969	7,896	1,073
Registered Investment Advisors	3,061	2,427	634
Veterinary Industry	1,506	1,361	145
Other Industries	3,173	2,147	1,026
Total	24,236	20,348	3,888
Commercial Real Estate			
Death Care Management	3,010	2,260	750
Healthcare	7,459	4,963	2,496
Independent Pharmacies	2,193	1,863	330
Veterinary Industry	9,734	8,271	1,463
Total	22,396	17,357	5,039
Commercial Land			
Agriculture	11,058	5,497	5,561
Total	11,058	5,497	5,561
Total	$57,690	$ 43,202	$ 14,488

December 31, 2017	Loan and Lease Balance	Guaranteed Balance	Unguaranteed Exposure
Commercial & Industrial			
Healthcare	$3,806	$ 3,235	$ 571
Independent Pharmacies	4,961	3,906	1,055
Veterinary Industry	1,517	1,478	39

Total	10,284	8,619	1,665
Commercial Real Estate			
Death Care Management	1,559	1,237	322
Healthcare	3,506	2,719	787
Independent Pharmacies	1,562	1,562	—
Veterinary Industry	6,569	5,733	836
Total	13,196	11,251	1,945
Total	$23,480	$ 19,870	$ 3,610

Allowance for Loan and Lease Loss Methodology

The methodology and the estimation process for calculating the Allowance for Loan and Lease Losses ("ALLL") is described below:

Estimated credit losses should meet the criteria for accrual of a loss contingency, i.e., a provision to the ALLL, set forth in GAAP. The Company's methodology for determining the ALLL is based on the requirements of GAAP, the Interagency Policy Statement on the Allowance for Loan and Lease Losses and other regulatory and accounting pronouncements. The ALLL is determined by the sum of three separate components: (i) the impaired loan and lease component, which addresses specific reserves for impaired loans and leases; (ii) the general reserve component, which addresses reserves for pools of homogeneous loans and leases; and (iii) an unallocated reserve component (if any) based on management's judgment and experience. The loan and lease pools and impaired loans and leases are mutually exclusive; any loan or lease that is impaired is excluded from its homogenous pool for purposes of that pool's reserve calculation, regardless of the level of impairment.

The ALLL policy for pooled loans and leases is governed in accordance with banking regulatory guidance for homogenous pools of non-impaired loans and leases that have similar risk characteristics. The Company follows a consistent and structured approach for assessing the need for reserves within each individual loan and lease pool.

Loans and leases are considered impaired when, based on current information and events, it is probable that the creditor will be unable to collect all interest and principal payments due according to the originally contracted, or reasonably modified, terms of the loan or lease agreement. The Company has determined that loans and leases that meet the criteria defined below must be reviewed quarterly to determine if they are impaired.

- All commercial loans and leases classified substandard or worse.
- Any other delinquent loan or lease that is in a nonaccrual status, or any loan or lease that is delinquent 90 days or more and still accruing interest.
- Any loan or lease which has been modified such that it meets the definition of a Troubled Debt Restructuring ("TDR").

The Company's policy for impaired loan accounting subjects all loans and leases to impairment recognition; however, loan and lease relationships with unguaranteed credit exposure of less than $100,000 are generally not evaluated on an individual basis for impairment and instead are evaluated collectively using a methodology based on historical specific reserves on similar sized loans or leases. Any loan or lease not meeting the above criteria and determined to be impaired is subjected to an impairment analysis, which is a calculation of the probable loss on the loan or lease. This portion is the loan's "impairment," and is established as a specific reserve against the loan or lease, or charged against the ALLL.

Individual specific reserve amounts imply probability of loss and may not be carried in the reserve indefinitely. When the amount of the actual loss becomes reasonably quantifiable, the amount of the loss is charged off against the ALLL, whether or not all liquidation and recovery efforts have been completed. If the total amount of the individual specific reserve that will eventually be charged off cannot yet be sufficiently quantified but some portion of the impairment can be viewed as a confirmed loss, then the confirmed loss portion should be charged off against the ALLL and the individual specific reserve reduced by a corresponding amount.

For impaired loans and leases, the reserve amount is calculated on a loan or lease-specific basis. The Company utilizes two methods of analyzing impaired loans and leases not guaranteed by the SBA:

- The Fair Market Value of Collateral method utilizes the value at which the collateral could be sold considering the appraised value, appraisal discount rate, prior liens and selling costs. The amount of the reserve is the deficit of the estimated collateral value compared to the loan or lease balance.
- The Present Value of Future Cash Flows method takes into account the amount and timing of cash flows and the effective interest rate used to discount the cash flows.

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Notes to Consolidated Financial Statements

The following tables detail activity in the allowance for loan and lease losses by portfolio segment allowance for the periods presented:

	Construction & Development	Commercial Real Estate	Commercial & Industrial	Commercial Land	Total
December 31, 2018					
Beginning Balance	$ 2,030	$ 9,180	$ 10,751	$ 2,229	$24,190
Charge offs	—	(1,041)	(4,215)	(241)	(5,497)
Recoveries	—	190	493	—	683
Provision	12	2,715	7,533	2,798	13,058
Ending Balance	$ 2,042	$ 11,044	$ 14,562	$ 4,786	$32,434
December 31, 2017					
Beginning Balance	$ 1,693	$ 5,897	$ 8,413	$ 2,206	$18,209
Charge offs	—	(1,177)	(2,617)	(58)	(3,852)
Recoveries	—	191	101	5	297
Provision	337	4,269	4,854	76	9,536
Ending Balance	$ 2,030	$ 9,180	$ 10,751	$ 2,229	$24,190
December 31, 2016					
Beginning Balance	$ 1,064	$ 2,486	$ 2,766	$ 1,099	$7,415
Charge offs	—	(707)	(1,464)	(63)	(2,234)
Recoveries	—	6	486	—	492
Provision	629	4,112	6,625	1,170	12,536
Ending Balance	$ 1,693	$ 5,897	$ 8,413	$ 2,206	$18,209

The following tables detail the recorded allowance for loan and lease losses and the investment in loans and lease related to each portfolio segment, disaggregated on the basis of impairment evaluation methodology:

December 31, 2018	Construction & Development	Commercial Real Estate	Commercial & Industrial	Commercial Land	Total
Allowance for Loan and Lease Losses:					
Loans and leases individually evaluated for impairment	$ 118	$ 2,424	$ 2,598	$ 3,951	$9,091
Loans and leases collectively evaluated for impairment	1,924	8,620	11,964	835	23,343

Total allowance for loan and lease losses	$ 2,042	$ 11,044	$ 14,562	$ 4,786	$32,434
Loans and leases receivable [1]:					
Loans and leases individually evaluated for impairment	$ 5,027	$ 46,731	$ 28,659	$ 21,997	$102,414
Loans and leases collectively evaluated for impairment	243,877	692,299	590,089	221,801	1,748,066
Total loans and leases receivable	$ 248,904	$ 739,030	$ 618,748	$ 243,798	$1,850,480

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Notes to Consolidated Financial Statements

December 31, 2017	Construction & Development	Commercial Real Estate	Commercial & Industrial	Commercial Land	Total
Allowance for Loan and Lease Losses:					
Loans and leases individually evaluated for impairment	$ 157	$ 1,502	$ 1,126	$ —	$2,785
Loans and leases collectively evaluated for impairment[2]	1,873	7,678	9,625	2,229	21,405
Total allowance for loan and lease losses	$ 2,030	$ 9,180	$ 10,751	$ 2,229	$24,190
Loans and Leases Receivable [1]:					
Loans and leases individually evaluated for impairment	$ 1,237	$ 17,105	$ 8,672	$ —	$27,014
Loans and leases collectively evaluated for impairment[2]	162,016	502,545	476,378	178,897	1,319,836
Total loans and leases receivable	$ 163,253	$ 519,650	$ 485,050	$ 178,897	$1,346,850

1 Loans and leases receivable includes $305.4 million of U.S. government guaranteed loans as of December 31, 2018, of which $72.4 million are impaired. As of December 31, 2017, loans and leases receivable includes $99.7 million of U.S. government guaranteed loans, of which $28.1 million are considered impaired.

2 Included in loans and leases collectively evaluated for impairment are impaired loans and leases with individual unguaranteed exposure of less than $100 thousand. As of December 31, 2017, these balances totaled $14.8 million, of which $13.2 million are guaranteed by the U.S. government and $1.6 million are unguaranteed. The allowance for loan and lease losses associated with these loans and leases totaled $279 thousand as of December 31, 2017.

Loans and leases classified as impaired as of the dates presented are summarized in the following tables.

December 31, 2018	Recorded Investment	Guaranteed Balance	Unguaranteed Exposure
Commercial & Industrial			
Agriculture	$ 7	$ —	$ 7
Death Care Management	6	—	6
Healthcare	9,668	7,229	2,439
Independent Pharmacies	9,356	7,896	1,460
Registered Investment Advisors	3,347	2,427	920
Veterinary Industry	2,326	1,819	507
Other Industries	3,949	2,304	1,645

Total	28,659	21,675	6,984
Construction & Development			
Agriculture	5,027	3,704	1,323
Total	5,027	3,704	1,323
Commercial Real Estate			
Agriculture	1,798	1,299	499
Death Care Management	3,143	2,261	882
Healthcare	20,442	14,559	5,883
Independent Pharmacies	5,633	4,079	1,554
Veterinary Industry	15,715	11,613	4,102
Total	46,731	33,811	12,920
Commercial Land			
Agriculture	21,997	13,177	8,820
Total	21,997	13,177	8,820
Total	$ 102,414	$ 72,367	$ 30,047

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Notes to Consolidated Financial Statements

December 31, 2017	Recorded Investment	Guaranteed Balance	Unguaranteed Exposure
Commercial & Industrial			
Death Care Management	$ 7	$ —	$ 7
Healthcare	4,551	3,235	1,316
Independent Pharmacies	8,571	6,356	2,215
Registered Investment Advisors	733	—	733
Veterinary Industry	2,762	2,001	761
Total	16,624	11,592	5,032
Construction & Development			
Healthcare	1,237	944	293
Total	1,237	944	293
Commercial Real Estate			
Death Care Management	2,831	1,237	1,594
Healthcare	4,315	2,967	1,348
Independent Pharmacies	1,562	1,562	—
Veterinary Industry	15,266	9,768	5,498
Total	23,974	15,534	8,440
Commercial Land			
Agriculture	—	—	—
Total	—	—	—
Total	$ 41,835	$ 28,070	$ 13,765

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Notes to Consolidated Financial Statements

The following table presents evaluated balances of loans and leases classified as impaired at the dates presented that carried an associated reserve as compared to those with no reserve. The recorded investment includes accrued interest and net deferred loan and lease fees or costs.

	December 31, 2018				
	Recorded Investment				
	With a Recorded Allowance	With No Recorded Allowance	Total	Unpaid Principal Balance	Related Allowance Recorded
Commercial & Industrial					
Agriculture	$—	$ 7	$7	$6	$ —
Death Care Management	—	6	6	6	—
Healthcare	9,604	64	9,668	10,432	827
Independent Pharmacies	9,032	324	9,356	10,564	478
Registered Investment Advisors	3,347	—	3,347	3,839	811
Veterinary Industry	2,160	166	2,326	2,593	65
Other Industries	3,496	453	3,949	4,097	417
Total	27,639	1,020	28,659	31,537	2,598
Construction & Development					
Agriculture	5,027	—	5,027	4,939	118
Total	5,027	—	5,027	4,939	118
Commercial Real Estate					
Agriculture	1,798	—	1,798	1,732	93
Death Care Management	2,859	284	3,143	3,281	30
Healthcare	20,211	231	20,442	20,461	1,145
Independent Pharmacies	5,184	449	5,633	5,884	220
Veterinary Industry	15,606	109	15,715	16,677	936
Total	45,658	1,073	46,731	48,035	2,424
Commercial Land					
Agriculture	21,997	—	21,997	22,147	3,951
Total	21,997	—	21,997	22,147	3,951
Total Impaired Loans and Leases	$100,321	$ 2,093	$102,414	$106,658	$ 9,091

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

	December 31, 2017 Recorded Investment				
	With a Recorded Allowance	With No Recorded Allowance	Total	Unpaid Principal Balance	Related Allowance Recorded
Commercial & Industrial					
Death Care Management	$—	$ 7	$7	$7	$ —
Healthcare	3,521	1,030	4,551	5,643	165
Independent Pharmacies	8,154	417	8,571	9,078	521
Registered Investment Advisors	662	71	733	725	504
Veterinary Industry	2,505	257	2,762	3,113	182
Total	14,842	1,782	16,624	18,566	1,372
Construction & Development					
Healthcare	1,237	—	1,237	1,258	157
Total	1,237	—	1,237	1,258	157
Commercial Real Estate					
Death Care Management	2,221	610	2,831	2,964	260
Healthcare	3,717	598	4,315	4,332	192
Independent Pharmacies	1,562	—	1,562	1,933	8
Veterinary Industry	13,711	1,555	15,266	16,584	1,075
Total	21,211	2,763	23,974	25,813	1,535
Commercial Land					
Agriculture	—	—	—	58	—
Total	—	—	—	58	—
Total Impaired Loans and Leases	$37,290	$ 4,545	$41,835	$45,695	$ 3,064

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Notes to Consolidated Financial Statements

The following table presents the average recorded investment of impaired loans and leases for each period presented and interest income recognized during the period in which the loans and leases were considered impaired.

	December 31, 2018		December 31, 2017		December 31, 2016	
	Average Balance	Interest Income Recognized	Average Balance	Interest Income Recognized	Average Balance	Interest Income Recognized
Commercial & Industrial						
Agriculture	$6	$ —	$—	$ —	$—	$ —
Death Care Management	6	—	8	—	112	1
Healthcare	9,825	95	6,101	53	7,513	81
Independent Pharmacies	8,510	40	6,018	100	2,570	76
Registered Investment Advisors	3,197	38	759	50	817	22
Veterinary Industry	2,451	69	2,523	45	2,537	35
Other Industries	3,997	48	—	—	—	—
Total	27,992	290	15,409	248	13,549	215
Construction & Development						
Agriculture	4,951	20	—	—	317	—
Healthcare	—	—	1,240	11	—	—
Total	4,951	20	1,240	11	317	—
Commercial Real Estate						
Agriculture	1,738	10	—	—	—	—
Death Care Management	3,204	91	2,882	50	1,789	7
Healthcare	19,845	515	4,381	49	4,093	41
Independent Pharmacies	6,021	22	1,708	—	538	3
Veterinary Industry	16,735	437	14,605	536	13,554	336
Total	47,543	1,075	23,576	635	19,974	387
Commercial Land						
Agriculture	22,138	188	113	—	294	—
Total	22,138	188	113	—	294	—
Total	$102,624	$ 1,573	$40,338	$ 894	$34,134	$ 602

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Notes to Consolidated Financial Statements

The following table represent the types of TDRs that were made during the periods presented:

	December 31, 2018 All Restructurings			December 31, 2017 All Restructurings			December 31, 2016 All Restructurings		
	Number of Loans and Leases	Pre-modification Recorded Investment	Post-modification Recorded Investment	Number of Loans and Leases	Pre-modification Recorded Investment	Post-modification Recorded Investment	Number of Loans and Leases	Pre-modification Recorded Investment	Post-modification Recorded Investment
Interest Only									
Construction and Development									
Healthcare	1	$ 612	$ 612	—	$ —	$ —	—	$ —	$ —
Total Interest Only	1	612	612	—	—	—	—	—	—
Interest Only & Rate Concession									
Commercial Land									
Agriculture	4	10,276	10,276	—	—	—	—	—	—
Total Interest Only & Rate Concession	4	10,276	10,276	—	—	—	—	—	—
Extended Amortization									
Construction and Development									
Agriculture	1	3,015	3,015	—	—	—	—	—	—
Commercial Land									
Agriculture	1	8	8	—	—	—	—	—	—
Total Extended Amortization	2	3,023	3,023	—	—	—	—	—	—
Extended Amortization and Rate Concession									
Construction and Development									
Agriculture	1	1,872	1,872	—	—	—	—	—	—
Commercial Real Estate									
Agriculture	1	1,732	1,732	—	—	—	—	—	—
Commercial & Industrial									
Registered Investment Advisors	1	1,254	1,254	—	—	—	—	—	—
Total Extended Amortization and Rate Concession	3	4,858	4,858	—	—	—	—	—	—
Payment Deferral and Extended Amortization									

Commercial Land									
Agriculture	1	608	608	—	—	—	—	—	—
Commercial & Industrial									
Independent Pharmacies	—	—	—	1	262	262	—	—	—
Total Payment Deferral and Extended Amortization	1	608	608	1	262	262	—	—	—
Payment Deferral									
Commercial & Industrial									
Veterinary Industry	—	—	—	2	559	559	1	420	420
Healthcare	—	—	—	—	—	—	1	440	440
Total Payment Deferral	—	—	—	2	559	559	2	860	860
Total	11	$ 19,377	$ 19,377	3	$ 821	$ 821	2	$ 860	$ 860

Concessions made to improve a loan and lease's performance have varying degrees of success. During the twelve months ended December 31, 2018, no TDRs that were modified within the twelve months ended December 31, 2018 subsequently defaulted. During the twelve months ended December 31, 2017, one TDR that was modified within the twelve months ended December 31, 2017 subsequently defaulted. This TDR was a commercial and industrial independent pharmacy loan that was previously modified for payment deferral and extended amortization. The recorded investment for this TDR at December 31, 2017 was $1.1 million. During the twelve months ended December 31, 2016, one TDR that was modified within the twelve months ended December 31, 2016 subsequently defaulted. This TDR was a commercial and industrial healthcare loan that was previously modified for payment deferral. There was no recorded investment for this TDR at December 31, 2016.

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Note 6. Equipment Leasing

Direct Financing Leases

The gross lease payments receivable and the net investment included in accounts receivable for such leases are as follows:

	As of December 31,	
	2018	2017
Gross direct finance lease payments receivable	$12,541	$2,399
Less - unearned interest	(2,635)	(373)
Net investment in direct financing leases	$9,906	$2,026

Future minimum lease payments receivable under direct finance leases are as follows:

As of December 31, 2018	Amount
2019	$2,341
2020	2,330
2021	2,251
2022	2,008
2023	1,521
Thereafter	2,090
Total	$12,541

Interest income of $401 thousand and $55 thousand was recognized in the twelve months ended December 31, 2018 and 2017, respectively.

Operating Leases

As of December 31, 2018 and 2017, the Company had a net investment of $148.8 million and $88.4 million, respectively, in assets included in premises and equipment that are subject to operating leases. Of the net investment, the gross balance of the assets was $159.2 million and $90.6 million and accumulated depreciation was $10.4 million and $2.2 million as of December 31, 2018 and 2017, respectively. Depreciation expense recognized on these assets for the twelve months ended December 31, 2018 and 2017 was $8.2 million, and $2.2 million, respectively.

A maturity analysis of future minimum lease payments receivable under non-cancelable operating leases is as follows:

As of December 31, 2018	Amount
2019	$8,656
2020	8,717
2021	8,763
2022	8,755
2023	8,785
Thereafter	47,429
Total	$91,105

Note 7. Servicing Assets

Loans serviced for others are not included in the accompanying balance sheet. The unpaid principal balances of loans serviced for others requiring recognition of a servicing asset were $2.63 billion, $2.44 billion and $2.22 billion at December 31, 2018, 2017 and 2016, respectively. The unpaid principal balance for all loans serviced for others was $3.22 billion, $2.85 billion and $2.42 billion at December 31, 2018, 2017 and 2016, respectively.

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The following summarizes the activity pertaining to servicing rights:

	2018	2017
Balance at beginning of period	$52,298	$51,994
Additions, net	16,568	14,028
Fair value changes:		
Due to changes in valuation inputs or assumptions	(7,238)	(2,722)
Decay due to increases in principal paydowns or runoff	(13,987)	(11,002)
Balance at end of period	$47,641	$52,298

The fair value of servicing rights was determined using a weighted average discount rate of 14.5% on December 31, 2018 and 13.3% on December 31, 2017. The fair value of servicing rights was determined using a weighted average prepayment speed of 12.0% on December 31, 2018 and 8.3% on December 31, 2017. Changes to fair value are reported in loan servicing revenue and revaluation within the consolidated statements of income.

The fair value of servicing rights is highly sensitive to changes in underlying assumptions. Changes in prepayment speed assumptions have the most significant impact on the fair value of servicing rights. Generally, as interest rates rise on variable rate loans, loan prepayments increase due to an increase in refinance activity, which results in a decrease in the fair value of servicing assets. Measurement of fair value is limited to the conditions existing and the assumptions used as of a particular point in time, and those assumptions may not be appropriate if they are applied at a different time.

Note 8. Premises, Equipment and Leases

Components of Premises and Equipment

Components of premises and equipment and total accumulated depreciation at December 31, 2018 and 2017 are as follows:

	2018	2017
Buildings	$31,880	$21,875
Land improvements	3,592	3,566
Furniture and equipment	10,878	10,391
Computers and software	665	561
Leasehold improvements	7,757	7,539
Land	8,650	8,650
Transportation	30,867	44,863
Solar panels	159,161	90,640
Deposits on fixed assets	36,180	6,534
Premises and equipment, total	289,630	194,619

Less accumulated depreciation	(27,106)	(15,829)
Premises and equipment, net of depreciation	$262,524	$178,790

Deposits on fixed assets consist primarily of construction costs related the Company's planned third building and fitness facility at its headquarters campus, capitalized internal software and contractual deposits on a new airplane. The outstanding contract commitment for the new airplane purchase is $10.5 million with the final purchase payments expected in the second quarter of 2019. Depreciation expense for the years ended December 31, 2018, 2017 and 2016 amounted to $16.0 million, $9.6 million and $4.2 million, respectively.

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Notes to Consolidated Financial Statements

Lease Obligations

Pursuant to the terms of non-cancelable lease agreements in effect at December 31, 2018 pertaining to Company premises and equipment, future minimum rent commitments under various operating leases are as follows:

Year	Amount
2019	$ 1,068
2020	512
2021	316
2022	275
2023	144
Thereafter	107
Total	$ 2,422

Certain leases contain renewal options for various additional terms after the expiration of the current lease term. Lease payments for the renewal period are not included in the future minimum lease table above.

The Company's total rent expense related to the aforementioned leases for 2018, 2017, and 2016 was $1.2 million, $848 thousand and $632 thousand, respectively.

Note 9. Deposits

The types of deposits at December 31, 2018 and 2017 are:

	2018	2017
Noninterest-bearing deposits	$53,993	$57,868
Interest-bearing deposits:		
Interest-bearing checking	2,099	36,978
Money market	89,329	188,146
Savings	886,718	696,989
Time deposits	2,117,444	1,280,282
Total	3,095,590	2,202,395
Total deposits	$3,149,583	$2,260,263

The aggregate amount of time deposits in denominations of $250 thousand or more at December 31, 2018 and 2017 was approximately $378.0 million and $234.4 million, respectively. At December 31, 2018 the scheduled maturities of total time deposits are as follows:

Year	Amount
2019	$1,440,651
2020	404,559
2021	143,288
2022	26,055
2023	37,873
Thereafter	65,018
Total	$2,117,444

There were no pledged certificates of deposit as of December 31, 2018 and 2017.

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Notes to Consolidated Financial Statements

Note 10. Borrowings

Total outstanding short and long term borrowings consisted of the following:

	December 31, 2018	December 31, 2017
Short term borrowings		
On September 18, 2014, the Company entered into a note payable revolving line of credit of $8.1 million with an unaffiliated commercial bank. On April 18, 2017, the Company renewed and increased the revolving line of credit to $25 million. The note is unsecured and accrues interest at Prime minus 0.50% for a term of 24 months. Payments are interest only with all principal and accrued interest due on April 30, 2019. The terms of this loan require the Company to maintain minimum capital, liquidity and Texas ratios. This line of credit was paid in full on August 25, 2017, and there is $25 million of available credit remaining at December 31, 2018.	$ —	$ —
On February 23, 2015, the Company transferred two related party loans to an unaffiliated commercial bank in exchange for $4.7 million. The exchange price equated to the unpaid principal balance plus accrued but uncollected interest at the time of transfer. The terms of the transfer agreement with the unaffiliated commercial bank identified the transaction as a secured borrowing for accounting purposes. One of the loans with an outstanding balance of $1.3 million was paid in full on August 17, 2018. Interest accrues at prime plus 1% with monthly principal and interest payments over a term of 60 months. The interest rate at December 31, 2018 is 6.25%. The maturity date is October 5, 2019. During 2018, this borrowing was reclassified from a long term to a short term borrowing. The pledged collateral is classified in other assets with a fair value of $1.4 million at December 31, 2018. The underlying loan carries a risk grade of 3 and is current with no delinquency.	1,441	—
On October 20, 2017, the Company entered into a revolving line of credit of $20 million with an unaffiliated commercial bank. On October 2, 2018, the Company renewed the revolving $20 million line of credit. The note is unsecured and accrues interest at LIBOR plus 1.750% for a term of 12 months. Payments are interest only with all principal and accrued interest due on October 18, 2019. The terms of this loan require the Company to maintain minimum capital and debt service coverage ratios. No advances have been made to this line of credit and there is $20 million of available credit remaining at December 31, 2018.	—	—
Total short term borrowings	$ 1,441	$ —

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	December 31, 2018	December 31, 2017
Long term borrowings		
On September 11, 2014, the Company financed the construction of an additional building located on the Company's Tiburon Drive main campus for a $24 million construction line of credit with an unaffiliated commercial bank, secured by both properties at its Tiburon Drive main facility location. Payments were interest only through September 11, 2016 at a fixed rate of 3.95% for a term of 84 months. Monthly principal and interest payments of $146 thousand began in October 2016 with all principal and accrued interest due on September 11, 2021. This note was repaid in full on January 31, 2018.	$ —	$ 22,990
On February 23, 2015, the Company transferred two related party loans to an unaffiliated commercial bank in exchange for $4.7 million. The exchange price equated to the unpaid principal balance plus accrued but uncollected interest at the time of transfer. The terms of the transfer agreement with the unaffiliated commercial bank identified the transaction as a secured borrowing for accounting purposes. During 2018, this borrowing was reclassified from a long term to a short term borrowing.	—	3,574
In October 2017, the Company entered into a capital lease of $19 thousand with an unaffiliated equipment lease company, secured by fitness equipment which is included in premises and equipment on the consolidated balance sheet. Payments are principal and interest due monthly starting December 15, 2017 over a term of 60 months. At the end of the lease term there is a $1.00 bargain purchase option.	16	—
Total long term borrowings	$ 16	$ 26,564

The Company may purchase federal funds through unsecured federal funds lines of credit with various correspondent banks, which totaled $72.5 million and $47.5 million as of December 31, 2018 and 2017. These lines are intended for short-term borrowings and are subject to restrictions limiting the frequency and terms of advances. These lines of credit are payable on demand and bear interest based upon the daily federal funds rate. The Company had no outstanding balances on the lines of credit as of December 31, 2018 or 2017.

The Company has entered into a repurchase agreement with a third party for up to $5.0 million as of December 31, 2018 and 2017. At the time the Company enters into a transaction with the third party, the Company must transfer securities or other assets against the funds received. The terms of the agreement are set at market conditions at the time the Company enters into such transaction. The Company had no outstanding balance on the repurchase agreement as of December 31, 2018 and 2017.

On June 18, 2018, the Company entered into a borrowing agreement with the Federal Home Loan Bank of Atlanta. These borrowings must be secured with eligible collateral approved by the Federal Home Loan Bank of Atlanta. As of December 31, 2018, there was $849.1 million of potential borrowing capacity available under this agreement. There is no collateral pledged and no advances outstanding as of December 31, 2018.

The Company may borrow funds through the Federal Reserve Bank's discount window. These borrowings are secured by a blanket floating lien on qualifying loans with a balance of $395.2 million and $348.5 million as of December 31,

2018 and 2017, respectively. At December 31, 2018 and 2017, the Company had approximately $218.0 million and $189.1 million, respectively, in borrowing capacity available under these arrangements with no outstanding balance as of December 31, 2018 or 2017.

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Notes to Consolidated Financial Statements

Note 11. Income Taxes

The components of income tax expense for the years ended December 31 are as follows:

	2018	2017	2016
Current income tax (benefit) expense:			
Federal	$585	$(15,424)	$6,487
State	(51)	1,162	1,244
Total current tax (benefit) expense	534	(14,262)	7,731
Deferred income tax (benefit) expense:			
Federal	(7,868)	8,389	(3,848)
State	1,932	3,628	(440)
Total deferred tax (benefit) expense	(5,936)	12,017	(4,288)
Income tax (benefit) expense, as reported	$(5,402)	$(2,245)	$3,443

Reported income tax expense differed from the amounts computed by applying the U.S. federal statutory income tax rate of 21% in 2018 and 35% in 2017 and 2016 to income before income taxes as follows:

	2018	2017	2016
Income tax expense computed at the statutory rate	$9,670	$34,389	$6,023
State income tax, net of federal benefit	1,485	3,114	523
Stock-based compensation expense	268	(380)	768
Change in U.S. tax rate	244	(18,921)	—
Other	777	62	525
Decrease in taxes due to investment tax credit	(17,846)	(20,509)	(4,396)
Total income tax expense	$(5,402)	$(2,245)	$3,443

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cut and Jobs Act (the “Tax Act”). The Tax Act made broad and complex changes to the U.S. tax code that affected 2018 and 2017, including, but not limited to, accelerated depreciation that allows for full expensing of qualified property. The Tax Act also enacted a reduction in the U.S. federal corporate income tax rate from 35% to 21% which became effective in 2018. The 21% tax rate positively impacted 2017 due to the revaluation of the Company’s deferred tax assets and liabilities. As such, the Company recorded a provisional net tax benefit of $18.9 million in 2017.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (“SAB 118”), which provided guidance on accounting for the tax effects of the Tax Act. SAB 118 provided a measurement period that could not extend beyond one year from the Tax Act enactment date for companies to complete the accounting under ASC 740, Income Taxes. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the Tax Act

for which the accounting under ASC 740 is complete. To the extent that a company's accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. During the measurement period, a company must record adjustments to its provisional estimate upon obtaining, preparing, or analyzing additional information about facts and circumstances that existed as of the enactment date that, if known, would have affected the provisional estimate. As noted above, the Company recorded a provisional net tax benefit of $18.9 million in its 2017 consolidated financial statements. Upon completing the accounting for the effects of the Tax Act, the Company recorded $244 thousand of additional income tax expense during 2018.

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Notes to Consolidated Financial Statements

Components of deferred tax assets and liabilities are as follows:

	2018	2017
Deferred tax assets:		
Tax credit carryforwards	$39,560	$20,272
Allowance for loan and lease losses	7,784	5,806
Net operating loss carryforwards	5,046	—
Mark to market on loans held for sale	1,780	5,751
Stock-based compensation expense	3,004	1,872
Goodwill and intangibles	720	1,259
Accrued expenses	430	375
Other	2,102	1,062
Total deferred tax assets	60,426	36,397
Deferred tax liabilities:		
Investment in joint venture	16,596	16,320
Unguaranteed loan discount	8,535	6,615
Premises and equipment	40,032	24,112
Deferred loan fees and costs, net	987	1,139
Other	326	323
Total deferred tax liabilities	66,476	48,509
Net deferred tax liability	$6,050	$12,112

The Company has recorded a deferred tax asset of $39.6 million related to federal tax credit carryforwards and $5.0 million related to federal and state net operating loss carryforwards which will begin to expire in 2037 and 2038, respectively.

Management assesses the realizability of deferred tax assets at each reporting period and considers whether it is more likely than not that a deferred tax asset will not be realized. The realization of a deferred tax asset is dependent upon the generation of future taxable income during periods in which the related temporary difference becomes deductible or realizable prior to its expiration. Management considers projected future taxable income, scheduled reversal of deferred tax liabilities, cessation of investing in renewable energy assets that generate investment tax credits and tax planning strategies in making this assessment. Based on these considerations, management believes it is more likely than not that the deferred tax assets will be realized.

The Company does not have any material uncertain tax positions and does not have any interest and penalties recorded in the income statement for the years ended December 31, 2018, 2017 and 2016. The Company files a consolidated income tax return in the U.S. federal tax jurisdiction.

Generally, the Company’s federal and state tax returns are no longer subject to examination by the taxing authorities for years prior to 2015.

Note 12. Fair Value of Financial Instruments

Fair Value Hierarchy

There are three levels of inputs in the fair value hierarchy that may be used to measure fair value. Financial instruments are considered Level 1 when valuation can be based on quoted prices in active markets for identical assets or liabilities. Level 2 financial instruments are valued using quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or models using inputs that are observable or can be corroborated by observable market data of substantially the full term of the assets or liabilities. Financial instruments are considered Level 3 when their values are determined using pricing models, discounted cash flow methodologies or similar techniques and at least one significant model assumption or input is unobservable and when determination of the fair value requires significant management judgment or estimation.

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Financial Instruments Measured at Fair Value

The following sections provide a description of the valuation methodologies used for instruments measured at fair value, as well as the general classification of such instruments pursuant to the fair value hierarchy:

Investment securities: Where quoted prices are available in an active market, securities are classified within Level 1 of the valuation hierarchy. Level 1 securities would include highly liquid government bonds, mortgage products and exchange traded equities. If quoted market prices are not available, then fair values are estimated by using pricing models, quoted prices of securities with similar characteristics, discounted cash flow or at net asset value per share. Level 2 securities would include US government agency securities, mortgage-backed securities, obligations of states and political subdivisions and certain corporate, asset backed and other securities. In certain cases where there is limited activity or less transparency around inputs to the valuation, securities are classified within Level 3 of the valuation hierarchy.

Impaired loans: Impairment of a loan is based on the fair value of the collateral of the loan for collateral-dependent loans. Fair value of the loan's collateral, when the loan is dependent on collateral, is determined by appraisals or independent valuation which is then adjusted for the cost related to liquidation of the collateral. For non-collateral dependent loans, impairment is determined by the present value of expected future cash flows. Impaired loans classified as Level 3 are based on management's judgment and estimation.

Servicing assets: Servicing rights do not trade in an active, open market with readily observable prices. While sales of servicing rights do occur, the precise terms and conditions typically are not readily available. Accordingly, the Company estimates the fair value of servicing rights using discounted cash flow models incorporating numerous assumptions from the perspective of a market participant including servicing income, servicing costs, market discount rates and prepayment speeds. Due to the nature of the valuation inputs, servicing rights are classified within Level 3 of the valuation hierarchy.

Foreclosed assets: Foreclosed real estate is adjusted to fair value less selling costs upon transfer of the loans to foreclosed real estate. Subsequently, foreclosed real estate is carried at the lower of carrying value or fair value less selling costs. Fair value is based upon independent market prices, appraised values of the collateral or management's estimation of the value of the collateral. Given the lack of observable market prices for identical properties and market discounts applied to appraised values, the Company generally classifies foreclosed assets as non-recurring Level 3.

Mutual fund: The mutual fund is registered with the Securities and Exchange Commission as a closed-end, non-diversified management investment company and operates as an interval fund. The fund primarily invests in the unguaranteed portion of SBA504 First Lien Loans secured by owner-occupied commercial real estate. This investment is valued using quoted prices in markets that are not active and is classified as Level 2 within the valuation hierarchy.

Equity warrant assets: Fair value measurements of equity warrant assets of private companies are priced based on a Black-Scholes option pricing model to estimate the asset value by using stated strike prices, option expiration dates, risk-free interest rates and option volatility assumptions. Option volatility assumptions used in the Black-Scholes model are based on public companies that operate in similar industries as the companies in our private company portfolio. Option expiration dates are modified to account for estimates of actual life relative to stated expiration. Values are further adjusted for a general lack of liquidity due to the private nature of the associated underlying

company. The Company classifies equity warrant assets within Level 3 of the valuation hierarchy.

Contingent consideration liability: Contingent consideration associated with the acquisition of Reltco is adjusted to fair value quarterly until settled. The assumptions used to measure fair value are based on internal metrics that are unobservable and therefore the contingent consideration liability is classified within Level 3 of the valuation hierarchy.

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Notes to Consolidated Financial Statements

Recurring Fair Value

The tables below present the recorded amount of assets and liabilities measured at fair value on a recurring basis.

December 31, 2018	Total	Level 1	Level 2	Level 3
Investment securities available-for-sale				
US treasury securities	$4,966	$ —	$4,966	$—
US government agencies	30,944	—	30,944	—
Residential mortgage-backed securities	343,581	—	343,581	—
Municipal bond[1]	999	—	—	999
Servicing assets[2]	47,641	—	—	47,641
Mutual fund	2,099	—	2,099	—
Equity warrant assets[3]	527	—	—	527
Total assets at fair value	$430,757	$ —	$381,590	$49,167

December 31, 2017	Total	Level 1	Level 2	Level 3
Investment securities available-for-sale				
US government agencies	$22,624	$ —	$22,624	$—
Residential mortgage-backed securities	68,696	—	68,696	—
Mutual fund	2,035	—	2,035	—
Servicing assets[2]	52,298	—	—	52,298
Total assets at fair value	$145,653	$ —	$93,355	$52,298
Contingent consideration liability[4]	$1,900	$ —	$—	$1,900
Total liabilities at fair value	$1,900	$ —	$—	$1,900

1 During the year ended December 31, 2018, the Company purchased a municipal bond with a value of $1.0 million and recorded a fair value adjustment of $1 thousand.
2 See Note 7 for a rollforward of recurring Level 3 fair values for servicing assets.
3 During the year ended December 31, 2018, the Company entered into equity warrant assets with a fair value of $551 thousand at the time of issuance and recorded net losses on derivative instruments of $24 thousand.
4 See Note 2 for activity related to the recurring Level 3 fair value for the contingent consideration liability and various assumptions used in the fair value measurement.

Non-recurring Fair Value

The tables below present the recorded amount of assets and liabilities measured at fair value on a non-recurring basis.

December 31, 2018	Total	Level 3

		Level 1	Level 2	
Impaired loans	$91,230	$ —	$ —	$91,230
Foreclosed assets	1,094		—	— 1,094
Total assets at fair value	$92,324	$ —	$ —	$92,324

December 31, 2017	Total	Level 1	Level 2	Level 3
Impaired loans	$34,493	$ —	$ —	$34,493
Foreclosed assets	1,281		—	— 1,281
Total assets at fair value	$35,774	$ —	$ —	$35,774

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Level 3 Analysis

For Level 3 assets and liabilities measured at fair value on a non-recurring basis as of December 31, 2018 and December 31, 2017 the significant unobservable inputs used in the fair value measurements were as follows:

December 31, 2018

Level 3 Assets with Significant Unobservable Inputs	Fair Value	Valuation Technique	Significant Unobservable Inputs	Range
Municipal bond	$ 999	Discounted expected cash flows	Discount rate	5.14%
			Prepayment speed	5.00%
Impaired loans	$ 91,230	Discounted appraisals	Appraisal adjustments (1)	8% to 48%
		Discounted expected cash flows	Interest rate & repayment term	Weighted average discount rate 6.58%
Foreclosed assets	$ 1,094	Discounted appraisals	Appraisal adjustments (1)	9% to 37%
Equity warrant assets	$ 527	Monte Carlo simulation	Volatility	20.40%
			Risk-free interest rate	2.69%
			Marketability discount	20.00%
			Remaining life	9 - 10 years

December 31, 2017

Level 3 Assets with Significant Unobservable Inputs	Fair Value	Valuation Technique	Significant Unobservable Inputs	Range
Impaired Loans	$34,493	Discounted appraisals	Appraisal adjustments (1)	10% to 25%
		Discounted expected cash flows	Interest rate & repayment term	Weighted average

				discount rate 6.26%
Foreclosed Assets	$1,281	Discounted appraisals	Appraisal adjustments (1)	10% to 37%

(1) Appraisals may be adjusted by management for customized discounting criteria, estimated sales costs, and proprietary qualitative adjustments.

Estimated Fair Value of Other Financial Instruments

GAAP also requires disclosure of fair value information about financial instruments carried at book value on the consolidated balance sheet. In cases where quoted market prices are not available, fair values are based on estimates using present value or other valuation techniques. Those techniques are significantly affected by the assumptions used, including the discount rate and estimates of future cash flows. In that regard, the derived fair value estimates cannot be substantiated by comparison to independent markets and, in many cases, could not be realized in immediate settlement of the instruments. Accordingly, the aggregate fair value amounts presented do not represent the underlying value of the Company.

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

December 31, 2018	Carrying Amount	Quoted Price In Active Markets for Identical Assets/Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
Financial assets					
Cash and due from banks	$316,823	$ 316,823	$ —	$ —	$316,823
Certificates of deposit with other banks	7,250	7,442	—	—	7,442
Investment securities, available-for-sale	380,490	—	380,490	—	380,490
Loans held for sale [1]	687,393	—	—	695,154	695,154
Loans and leases, net of allowance for loan and lease losses [1]	1,810,985	—	—	1,807,528	1,807,528
Servicing assets	47,641	—	—	47,641	47,641
Accrued interest receivable	15,895	15,895	—	—	15,895
Mutual fund	2,099	—	2,099	—	2,099
Equity warrant assets	527	—	—	527	527
Financial liabilities					
Deposits	3,149,583	—	3,117,941	—	3,117,941
Accrued interest payable	861	861	—	—	861
Short term borrowings	1,441	—	—	1,441	1,441
Long term borrowings	16	—	—	16	16

December 31, 2017	Carrying Amount	Quoted Price In Active Markets for Identical Assets/Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
Financial assets					

Cash and due from banks	$295,271	$ 295,271	$ —	$ —	$295,271
Certificates of deposit with other banks	3,000	2,993	—	—	2,993
Investment securities, available-for-sale	93,355	—	93,355	—	93,355
Loans held for sale [1]	680,454	—	—	706,972	706,972
Loans and leases, net of allowance for loan and lease losses [1]	1,319,783	—	—	1,319,615	1,319,615
Servicing assets	52,298	—	—	52,298	52,298
Accrued interest receivable	10,160	10,160	—	—	10,160
Financial liabilities					
Deposits	2,260,263	—	2,232,370	—	2,232,370
Accrued interest payable	367	367	—	—	367
Long term borrowings	26,564	—	—	27,390	27,390

(1) In accordance with the adoption of ASU 2016-01, as of December 31, 2018, the fair value of loans and leases were measured using an exit price notion. As of December 31, 2017, the fair value of loans and leases were measured using an entry price notion.

Note 13. Commitments and Contingencies

Litigation

In the normal course of business, the Company is involved in various legal proceedings. Management believes that the outcome of such proceedings will not materially affect the financial position, results of operations or cash flows of the Company.

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Notes to Consolidated Financial Statements

Financial Instruments with Off-balance-sheet Risk

The Company is party to financial instruments with off-balance-sheet risk in the normal course of business to meet the financing needs of its customers. These financial instruments include commitments to extend credit and standby letters of credit. These instruments involve, to varying degrees, credit risk in excess of the amount recognized in the balance sheet.

The Company's exposure to credit loss in the event of nonperformance by the other party to the financial instrument for commitments to extend credit and standby letters of credit is represented by the contractual amount of those instruments. The Company uses the same credit policies in making commitments and conditional obligations as for on-balance-sheet instruments. A summary of the Company's commitments is as follows:

	December 31, 2018	December 31, 2017
Commitments to extend credit	$ 1,435,024	$ 1,701,137
Standby letters of credit	2,150	2,298
Solar purchase commitments	—	106,921
Airplane purchase agreement commitments	10,450	25,450
Total unfunded off-balance sheet credit risk	$ 1,447,624	$ 1,835,806

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since many of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. The Company evaluates each customer's creditworthiness on a case-by-case basis. The amount of collateral obtained, if deemed necessary by the Company upon extension of credit, is based on management's credit evaluation of the party. Collateral held varies, but may include accounts receivable, inventory, property and equipment, residential real estate and income-producing commercial properties. In 2012, the Company began issuing commitment letters after approval of the loan by the Credit Department. Commitment letters generally expire ninety days after issuance.

Standby letters of credit are conditional commitments issued by the Company to guarantee the performance of a customer to a third party. Those guarantees are primarily issued to support public and private borrowing arrangements. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities to customers. Collateral held varies as specified above and is required in instances which the Company deems necessary.

Solar purchase commitments are to purchase solar assets to fulfill leasing obligations.

As of December 31, 2018 and 2017, the Company had commitments for on-balance sheet instruments in the amount of $2.8 million and $3.5 million, respectively.

Concentrations of Credit Risk

Although the Company is not subject to any geographic concentrations, a substantial amount of the Company's loans and commitments to extend credit have been granted to customers in the agriculture, healthcare and veterinary verticals. The concentrations of credit by type of loan are set forth in Note 5. The distribution of commitments to extend credit approximates the distribution of loans outstanding. The Company does not have a significant number of credits to any single borrower or group of related borrowers whereby their retained exposure exceeds $7.5 million, except for thirteen relationships that have a retained unguaranteed exposure of $158.1 million of which $111.6 million of the unguaranteed exposure has been disbursed.

Additionally, the Company has future minimum lease payments receivable under non-cancelable operating leases totaling $91.1 million, of which $67.4 million is due from four relationships.

The Company from time-to-time may have cash and cash equivalents on deposit with financial institutions that exceed federally-insured limits.

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Notes to Consolidated Financial Statements

Note 14. Benefit Plans

Defined Contribution Plan

The Company maintains an employee benefit plan pursuant to Section 401(k) of the Internal Revenue Code. The plan covers substantially all employees. Participants may contribute a percentage of compensation, subject to a maximum allowed under the Code. In addition, the Company makes certain matching contributions and may make additional contributions at the discretion of the board of directors. Company expense relating to the plan for the years ended December 31, 2018, 2017, and 2016 amounted to $2.7 million, $2.5 million and $2.0 million, respectively.

Flexible Benefits Plan

The Company maintains a Flexible Benefits Plan which covers substantially all employees. Participants may set aside pre-tax dollars to provide for future expenses such as dependent care.

Employee Stock Purchase Plan

The Company adopted an Employee Stock Purchase Plan (2014 ESPP) on October 8, 2014. On May 24, 2016, the 2014 ESPP was amended and the Amended and Restated Employee Stock Purchase Plan became effective (ESPP), within the meaning of Section 423 of the Internal Revenue Code of 1986, as amended. Under this plan, eligible employees are able to purchase available shares with post-tax dollars as of the grant date. In order for employees to be eligible to participate in this plan they must be employed or on an authorized leave of absence from the Company or any subsidiary immediately prior to the grant date. ESPP stock purchases cannot exceed $25 thousand in fair market value per employee per calendar year. Options to purchase shares under the ESPP are granted at a 15% discount to fair market value. Expense recognized in relation to the ESPP was $60 thousand and $79 thousand for fiscal years 2018 and 2017, respectively. There were no ESPP purchases during 2016.

Stock Option Plans

On March 20, 2015, the Company adopted the 2015 Omnibus Stock Incentive Plan which replaced the previously existing Amended Incentive Stock Option Plan and Nonstatutory Stock Option Plan. Subsequently on May 24, 2016, the 2015 Omnibus Stock Incentive Plan was amended and restated to authorize awards covering a maximum of 7,000,000 common voting shares and has an expiration date of March 20, 2025. On May 15, 2018, the Amended and Restated 2015 Omnibus Stock Incentive Plan was amended to authorize awards covering a maximum of 8,750,000 common voting shares. Options or restricted shares granted under the Amended and Restated 2015 Omnibus Stock Incentive Plan (the "Plan") expire no more than 10 years from date of grant. Exercise prices under the Plan are set by the Board of Directors at the date of grant, but shall not be less than 100% of fair market value of the related stock at the date of the grant. Options vest over a minimum of three years from the date of the grant.

Compensation cost relating to share-based payment transactions are recognized in the financial statements with measurement based upon the fair value of the equity or liability instruments issued. For the years ended December 31, 2018, 2017, and 2016 the Company recognized $1.7 million, $1.7 million, and $2.3 million in compensation expense for stock options, respectively.

Stock option activity under the Plan during the year ended December 31, 2018 is summarized below.

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at December 31, 2017	3,058,459	$ 11.30		
Exercised	184,808	9.08		
Forfeited	216,796	13.50		
Granted	—	—		
Outstanding at December 31, 2018	2,656,855	$ 11.27	6.01	$ 11,861,636
Exercisable at December 31, 2018	817,025	$ 10.77	5.84	$ 4,037,146

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Notes to Consolidated Financial Statements

The following is a summary of non-vested stock option activity for the Company for the years ended December 31, 2018, 2017, and 2016.

	Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2015	3,393,441	$ 4.56
Granted	169,987	6.58
Vested	(372,515)	4.41
Forfeited	(174,813)	3.06
Non-vested at December 31, 2016	3,016,100	4.78
Granted	—	—
Vested	(340,362)	4.36
Forfeited	(310,739)	6.25
Non-vested at December 31, 2017	2,364,999	4.65
Granted	—	—
Vested	(308,373)	7.51
Forfeited	(216,796)	5.90
Non-vested at December 31, 2018	1,839,830	$ 4.60

The total intrinsic value of options exercised during the years ended December 31, 2018, 2017, and 2016 was $3.5 million, $1.5 million, and $590 thousand, respectively.

At December 31, 2018, unrecognized compensation costs relating to stock options amounted to $6.0 million which will be recognized over a weighted average period of 2.08 years.

The weighted average fair value of each stock option grant is estimated on the date of grant using the Black-Scholes option-pricing model. The expected volatility is based on historical volatility. The risk-free interest rates for periods within the contractual life of the awards are based on the U.S. Treasury yield curve in effect at the time of the grant. The expected life is based on historical exercise experience. The dividend yield assumption is based on the Company’s history and expectation of dividend payouts.

There were no options granted in 2018 or 2017.

Weighted average assumptions used for options granted during the year ended December 31, 2016 were as follows:

	2016
Risk free rate	1.56 %
Dividend yield	0.05 %
Volatility	44.20%
Average life (in years)	7

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Notes to Consolidated Financial Statements

Restricted Stock Plan

In 2010, the Company adopted a Restricted Stock Plan. Under this plan, a total of 1,350,000 shares of Common Stock were available for issuance to eligible employees. Restricted stock grants vest in equal installments ranging from immediate vesting to over a seven year period from the date of the grant. Under the 2015 Omnibus Stock Incentive Plan, which replaced the previously existing Restricted Stock Plan, 2,962,486 restricted stock units were granted in 2016 to eligible employees and outside directors at a weighted average grant date fair value of $9.76 per share, of which 2,872,000 restricted stock units had market price conditions or non-market-related performance criteria restrictions. During 2017, 340,318 restricted stock units were granted to eligible employees and outside directors at a weighted average grant date fair value of $17.00 per share, of which 233,791 restricted stock units had market price conditions or non-market-related performance criteria restrictions. During 2018, 840,150 restricted stock units were granted to eligible employees and outside directors at a weighted average grant date fair value of $19.72, of which 485,000 restricted stock units had market price conditions or non-market-related performance criteria restrictions.

The fair value of each restricted stock unit is based on the market value of the Company's stock on the date of the grant. Restricted stock awards are authorized in the form of restricted stock awards or units ("RSUs") and restricted stock awards or units with a market price condition ("Market RSUs").

RSUs have a restriction based on the passage of time and may also have a restriction based on a non-market-related performance criteria. The fair value of the RSUs is based on the closing price on the date of the grant.

Market RSUs also have a restriction based on the passage of time and may have non-market-related performance criteria, but also have a restriction based on market price criteria related to the Company's share price closing at or above a specified price ranging from $34.00 to $55.00 per share for at least twenty (20) consecutive trading days at any time prior to the expiration date of the grants. The amount of Market RSUs earned will not exceed 100% of the Market RSUs awarded. The fair value of the Market RSUs and the implied service period is calculated using the Monte Carlo Simulation method.

The following is a summary of non-vested RSU stock activity for the Company for the year ended December 31, 2018.

	Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2017	181,814	$ 20.03
Granted	355,150	25.17
Vested	91,589	23.62
Forfeited	57,188	20.27

Non-vested at December 31, 2018	388,187	$ 23.85

During 2017 and 2016, the Company granted 106,527 and 597,986 RSUs, respectively. The weighted average grant date fair value for RSUs granted in 2017 and 2016 were $23.71 and $15.61, respectively.

For the years ended December 31, 2018, 2017, and 2016 the Company recognized $2.6 million, $741 thousand, and $8.5 million in compensation expense for RSUs, respectively.

At December 31, 2018, unrecognized compensation costs relating to RSUs amounted to $8.3 million which will be recognized over a weighted average period of 5.17 years.

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The following is a summary of non-vested Market RSU stock activity for the Company for the year ended December 31, 2018.

	Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2017	2,532,808	$ 8.78
Granted	485,000	16.23
Vested	—	—
Forfeited	308,606	10.89
Non-vested at December 31, 2018	2,709,202	$ 9.87

During 2017 and 2016, the Company granted 233,791 and 2,364,500 Market RSUs with a weighted average grant date fair value of $13.94 and $8.28, respectively.

The compensation expense for Market RSUs is measured based on their grant date fair value as calculated using the Monte Carlo Simulation and is recognized on a straight-line basis over the average vesting period. The Monte Carlo Simulation used 100,000 simulation paths to assess the expected date of achieving the market price criteria.

Related to the 75,000 Market RSUs granted on May 14, 2018, the share price simulation was based on the Cox, Ross & Rubinstein option pricing methodology for a period of 7.0 years. The implied term of the restricted stock was 3.3 years. The Monte Carlo Simulation used various assumptions that included a risk free rate of return of 2.96%, expected volatility of 27.00% and a dividend yield of 0.42%.

Related to the 410,000 Market RSUs granted on August 10, 2018, the share price simulation was based on the Cox, Ross & Rubinstein option pricing methodology for a period of 7.0 years. The implied term of the restricted stock ranges from 1.6 years to 3.5 years. The Monte Carlo Simulation used various assumptions that included a risk free rate of return of 2.78%, expected volatility of 28.10% and dividend yield of 0.40%.

For the years ended December 31, 2018, 2017 and 2016, the Company recognized $4.9 million, $5.0 million, and $1.2 million respectively, in compensation expense for Market RSUs.

At December 31, 2018, unrecognized compensation costs relating to Market RSUs amounted to $15.7 million which will be recognized over a weighted average period of 2.51 years.

Employee/Outside Director Bonus Plan

In 2014, the Company adopted a Bonus Plan whereby eligible employees and outside directors were qualified to receive quarterly and annual bonus payments based on each individual's base pay/annual director fees and the profitability of the Company. In 2016, the Company approved a revised Incentive Compensation Plan and the payout criteria was adjusted for exceeding thresholds based on certain performance metrics and the profitability of the Company and applied to full-time employees only. Beginning in 2016, this plan no longer applied to outside directors. Total expenses related to the bonus plan for employees were $632 thousand, $3.2 million, and $2.9 million for the years ended December 31, 2018, 2017, and 2016, respectively.

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Notes to Consolidated Financial Statements

Note 15. Regulatory Matters

Dividends

The Bank, as a North Carolina banking corporation, may pay dividends to shareholders provided the bank does not make distributions that reduce its capital below its applicable required capital, pursuant to North Carolina General Statutes Section 53C-4-7. However, regulatory authorities may limit payment of dividends by any bank when it is determined that such a limitation is in the public interest and is necessary to ensure financial soundness of the bank.

Capital Requirements

The Company and the Bank are subject to various regulatory capital requirements administered by the federal banking agencies. The Basel III Capital Rules, a comprehensive capital framework for U.S. banking organizations, became effective for the Company and Bank on January 1, 2015. The framework's requirements are phased in over a multi-year schedule, to be fully phased in by January 1, 2019. Under Basel III, requirements include a common equity Tier 1 ratio minimum of 4.50 percent, Tier 1 risk-based capital minimum of 6.00 percent, total risk-based capital ratio minimum of 8.00 percent and Tier 1 leverage capital ratio minimum of 4.00 percent. Failure to meet minimum capital requirements may result in certain actions by regulators that could have a direct material effect on the consolidated financial statements. A new capital conservation buffer, comprised of common equity Tier 1 capital, was also established by Basel III above the regulatory minimum requirements. This capital conservation buffer was phased in beginning January 1, 2016 at 0.625 percent of risk-weighted assets and will increase each subsequent year by an additional 0.625 percent until reaching its final level of 2.50 percent on January 1, 2019.

Based on the most recent notification from the Federal Deposit Insurance Corporation, the Bank is well capitalized under the regulatory framework for prompt corrective action. As of December 31, 2018, the Company and the Bank met all capital adequacy requirements to which they are subject and were not aware of any conditions or events that would change each entity's well capitalized status.

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Notes to Consolidated Financial Statements

Capital amounts and ratios as of December 31, 2018 and 2017, are presented in the following table.

	Actual		Minimum Capital Requirement		Minimum To Be Well Capitalized	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
Consolidated - December 31, 2018						
Common Equity Tier 1						
(to Risk-Weighted Assets)	$467,033	17.10%	$122,937	4.50%	N/A	N/A
Total Capital						
(to Risk-Weighted Assets)	$499,467	18.28%	$218,555	8.00%	N/A	N/A
Tier 1 Capital						
(to Risk-Weighted Assets)	$467,033	17.10%	$163,917	6.00%	N/A	N/A
Tier 1 Capital						
(to Average Assets)	$467,033	13.40%	$139,453	4.00%	N/A	N/A
Bank - December 31, 2018						
Common Equity Tier 1	$385,030	14.35%	$120,706	4.50%	$174,353	6.50 %
(to Risk-Weighted Assets)						
Total Capital	$417,609	15.57%	$214,588	8.00%	$268,235	10.00%
(to Risk-Weighted Assets)						
Tier 1 Capital	$385,030	14.35%	$160,941	6.00%	$214,588	8.00 %
(to Risk-Weighted Assets)						
Tier 1 Capital	$385,030	11.22%	$137,304	4.00%	$171,630	5.00 %
(to Average Assets)						
Consolidated - December 31, 2017						
Common Equity Tier 1						
(to Risk-Weighted Assets)	$390,816	17.81%	$98,764	4.50%	N/A	N/A
Total Capital						
(to Risk-Weighted Assets)	$415,006	18.91%	$175,580	8.00%	N/A	N/A
Tier 1 Capital						
(to Risk-Weighted Assets)	$390,816	17.81%	$131,685	6.00%	N/A	N/A
Tier 1 Capital						
(to Average Assets)	$390,816	15.50%	$100,828	4.00%	N/A	N/A
Bank - December 31, 2017						
Common Equity Tier 1						
(to Risk-Weighted Assets)	$277,943	12.89%	$97,060	4.50%	$140,197	6.50 %
Total Capital						
(to Risk-Weighted Assets)	$302,385	14.02%	$172,551	8.00%	$215,688	10.00%
Tier 1 Capital						
(to Risk-Weighted Assets)	$277,943	12.89%	$129,413	6.00%	$172,551	8.00 %
Tier 1 Capital						
(to Average Assets)	$277,943	11.36%	$97,864	4.00%	$122,330	5.00 %

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Notes to Consolidated Financial Statements

Note 16. Transactions with Related Parties

The Company has entered into transactions with its directors, officers, significant shareholders and their affiliates (related parties). Such transactions were made in the ordinary course of business on substantially the same terms and conditions, including interest rates, as those prevailing at the same time for comparable transactions with other customers, and did not, in the opinion of management, involve more than normal risk or present other unfavorable features.

There were no related party loans at December 31, 2018 and 2017, other than those disclosed as secured borrowings in Note 10.

Deposits from related parties held by the Company at December 31, 2018 and 2017 amounted to $31.4 million and $42.8 million, respectively.

As of December 31, 2016, the Company had invested an aggregate of $863 thousand in Plexus Funds II, III and IV-C, L.P. which is included in other assets in the consolidated balance sheets at December 31, 2018 and 2017 with a balance of $3.5 million. There were no additional investments in Plexus Funds II and III, L.P. during the years ended December 31, 2018 and 2017. During the years ended December 31, 2018 and 2017, the Company invested $675 thousand and $375 thousand, respectively, in Plexus Fund IV-C, L.P. A member of the Company’s board of directors is also a member of Plexus Capital, the administrator of Plexus Funds II, III and IV-C, L.P.

During the year ended December 31, 2018, the Company invested $500 thousand in DefenseStorm, Inc. ("DefenseStorm"), which is included in other assets in the consolidated balance sheets with a balance of $2.0 million and $1.5 million at December 31, 2018 and 2017, respectively. The Company holds voting and non-voting equity in DefenseStorm which is accounted for as an equity security investment. DefenseStorm provides a broad range of IT and cyber security solutions principally designed for financial institutions. As of December 31, 2018, the Company held approximately 9.1% of DefenseStorm on a fully diluted basis in the form of both voting and non-voting common equity, including approximately 4.9% voting control. Directors and officers of the Company and their affiliates collectively own approximately 9.5% of DefenseStorm on a fully diluted basis as of December 31, 2018. During 2018 and 2017, the Company had business transactions with DefenseStorm amounting to $71 thousand and $405 thousand, respectively, for cyber security event monitoring services.

During the year ended December 31, 2018, the Company invested $5.1 million in Finxact LLC ("Finxact"), a developer of core processing software and services for the banking industry, which is included in other assets in the consolidated balance sheet with a balance of $6.8 million and $2.5 million as of December 31, 2018 and 2017, respectively. At December 31, 2018, the Company holds approximately 16.9% of Finxact on a fully diluted basis in the form of both voting and non-voting equity, including approximately 14.2% voting control. This investment is accounted for as an equity method investment due to the Company's ability to exercise significant influence over financial and operating policies of Finxact. Certain officers and directors of the Company collectively own approximately 6.7% of Finxact on a fully diluted basis in the form of non-voting equity at December 31, 2018.

During the years ended December 31, 2018 and 2017, the Company invested $628 thousand and $1.5 million, respectively, in Payrailz, LLC ("Payrailz"), an entity that provides digital payment services to the financial services industry, which is included in other assets in the consolidated balance sheet with a balance of $1.0 million and $1.3 million at December 31, 2018 and 2017, respectively. At December 31, 2018, the Company holds approximately

16.3% of Payrailz on a fully diluted basis in the form of voting equity. This investment is accounted for as an equity method investment due to the Company's ability to exercise significant influence over financial and operating policies of Payrailz. Certain officers and directors of the Company collectively own approximately 4.3% of Payrailz on a fully diluted basis in the form of voting equity at December 31, 2018.

During the year ended December 31, 2017, the Company completed a digital banking joint venture between Live Oak Banking Company and First Data Corporation creating a new company called Apiture. See Note 3. Unconsolidated Joint Venture for further discussion. During 2018 and 2017, the Company had business transactions with Apiture amounting to $5.5 million and $304 thousand, respectively, for professional services. During 2018, the Company received income related to business transactions amounting to $255 thousand. The Company received no income related to business transactions during the year ended December 31, 2017.

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Notes to Consolidated Financial Statements

Note 17. Parent Company Only Financial Statements

The following balance sheets, statements of income and statements of cash flows for Live Oak Bancshares, Inc. should be read in conjunction with the consolidated financial statements and the notes thereto.

Balance Sheets

	2018	2017
Assets		
Cash and cash equivalents	$14,780	$54,502
Investment in subsidiaries	452,426	351,647
Premises & equipment, net	—	33,948
Other assets	28,094	25,457
Total assets	$495,300	$465,554
Liabilities and Shareholders' Equity		
Short term borrowings	$1,441	$—
Long term borrowings	—	26,564
Other liabilities	299	2,057
Total liabilities	1,740	28,621
Shareholders' equity:		
Common stock	328,113	317,725
Retained earnings	167,124	120,241
Accumulated other comprehensive loss	(1,677)	(1,033)
Total equity	493,560	436,933
Total liabilities & shareholders' equity	$495,300	$465,554

Statements of Income

	2018	2017	2016
Interest income	$46	$5	$50
Interest expense	129	1,210	964
Net interest loss	(83)	(1,205)	(914)
Noninterest income:			
Other noninterest income	562	2,114	2,041
Total noninterest income	562	2,114	2,041
Noninterest expense:			
Salaries and employee benefits	10,117	10,531	12,785
Professional services expense	853	1,192	675

Renewable energy tax credit investment impairment	—	690	3,197
Impairment expense on goodwill and other intangibles, net	2,680	(4,350)	—
Other expense	1,844	2,588	2,076
Total noninterest expense	15,494	10,651	18,733
Net loss before equity in undistributed income of subsidiaries	(15,015)	(9,742)	(17,606)
Income tax benefit	(3,658)	(320)	(10,065)
Net loss	(11,357)	(9,422)	(7,541)
Equity in undistributed income of subsidiaries in excess of dividends from subsidiaries	62,805	109,921	21,305
Net income	51,448	100,499	13,764
Net loss attributable to noncontrolling interest	—	—	9
Net income attributable to Live Oak Bancshares, Inc.	$51,448	$100,499	$13,773

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Notes to Consolidated Financial Statements

Statements of Cash Flows

	2018	2017	2016
Cash flows from operating activities			
Net income	$51,448	$100,499	$13,764
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Equity in undistributed net income of subsidiaries in excess of dividends of subsidiaries	(62,805)	(109,921)	(21,305)
Depreciation	199	1,188	1,173
Impairment expense on goodwill and other intangibles, net	2,680	(4,350)	—
Deferred income tax	(6,633)	(5,376)	(2,695)
Renewable energy tax credit investment impairment	—	690	3,197
Stock option based compensation expense	1,713	1,786	2,349
Restricted stock expense	7,463	5,717	9,724
Business combination contingent consideration fair value adjustments	(260)	1,950	—
Net change in other assets	4,396	11,649	(17,930)
Net change in other liabilities	142	(820)	(358)
Net cash (used in) provided by operating activities	(1,657)	3,012	(12,081)
Cash flows from investing activities			
Capital investment in subsidiaries	(9,325)	(55,240)	(45,870)
Net change in advances to subsidiaries	—	640	—
Business combination, net of cash acquired	—	(7,696)	—
Purchases of premises and equipment	(20)	(4,864)	(143)
Net cash used in investing activities	(9,345)	(67,160)	(46,013)
Cash flows from financing activities			
Proceeds from long term borrowings	—	16,900	—
Repayments of long term borrowings	(25,075)	(26,279)	(532)
Proceeds from short term borrowings	—	8,100	—
Repayments of short term borrowings	(48)	—	—
Stock option exercises	1,626	1,026	401
Employee stock purchase program	342	445	—
Withholding cash issued in lieu of restricted stock	(756)	(4,891)	—
Sale of common stock, net	—	113,096	—
Shareholder dividend distributions	(4,809)	(3,776)	(2,737)
Net cash (used in) provided by financing activities	(28,720)	104,621	(2,868)
Net change in cash and cash equivalents	(39,722)	40,473	(60,962)
Cash and cash equivalents at beginning of year	54,502	14,029	74,991
Cash and cash equivalents at end of year	$14,780	$54,502	$14,029

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Notes to Consolidated Financial Statements

Note 18. Subsequent Event (Unaudited)

Management has evaluated subsequent events through the date the financial statements were available to be issued and determined that the following event required disclosure:

On February 11, 2019, the Subcommittee of the Compensation Committee of the Board of Directors of the Company approved modifications to outstanding restricted stock unit awards with market price conditions (“Market RSUs”), a new grant of Market RSUs and a new grant of restricted stock awards with time-based vesting provisions (“RSUs”).

Market RSUs: Modified awards were originally approved on May 14 and August 10, 2018 and entitled recipients to receive 485,000 shares of the Company’s voting common stock upon vesting. Under the terms of the original awards, a portion of the Market RSUs were scheduled to vest if the Company's voting common stock attained various closing prices ranging from $35.00 to $55.00 per share for at least twenty (20) consecutive trading days at any time prior to the end of the term. Modifications to these awards were to: (a) lengthen the term from seven to ten years from date of original grant and (b) change the amount of Market RSUs that vest at individual closing stock prices originally approved. As a result of these modifications, the Company expects to recognize approximately $1.5 million in additional stock-based compensation expense over a blended implied term of 2.9 years. The total number of Market RSUs originally approved on May 14 and August 10, 2018 remained unchanged as a result of the above modifications.

In addition, 500,000 Market RSUs with terms and price conditions in alignment with the above modified awards were granted. The Company expects to recognize total stock-based compensation expense of approximately $2.1 million over a blended implied term of 2.9 years in connection with these new Market RSUs.

RSUs: There were also 30,000 RSUs granted with time-based vesting provisions. As a result of this award, the Company expects to recognize total stock-based compensation expense of approximately $463 thousand over a four-year period.

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

None.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this Annual Report on Form 10-K, the Company carried out an evaluation, under the supervision and with the participation of its management, including its Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of its disclosure controls and procedures. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management was required to apply judgment in evaluating its controls and procedures. Based on this evaluation, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), were effective as of the end of the period covered by this report.

Changes in Internal Control over Financial Reporting

There were no changes in the Company's internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended December 31, 2018, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting. 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 pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles in the United States of America, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and 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 might 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.

As of December 31, 2018, management assessed the effectiveness of the Company's internal control over financial reporting based on the criteria for effective internal control over financial reporting established in "Internal Control-Integrated Framework (2013)," issued by the Committee of Sponsoring Organizations ("COSO") of the Treadway Commission. Based on the assessment, management determined that the Company maintained effective internal control over financial reporting as of December 31, 2018.

Dixon Hughes Goodman LLP, the independent registered public accounting firm, audited the consolidated financial statements of the Company included in this Annual Report on Form 10-K and has issued an audit report on the Company's internal control over financial reporting as of December 31, 2018. This report entitled "Report of Independent Registered Public Accounting Firm" appears in Item 8.

Item 9B. OTHER INFORMATION

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by Item 10 will be included in LOB's definitive proxy statement for the 2019 Annual Meeting of Shareholders (the "Proxy Statement"), under the headings "Proposal 1: Election of Directors," "Qualifications of Directors," "Code of Ethics and Conflict of Interest Policy," "Director Relationships," "Committees of the Board or Directors," "Executive Officers," "Report of the Audit and Risk Committee," and "Section 16(a) Beneficial Ownership Reporting Compliance" and is incorporated herein by reference. The Proxy Statement will be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days of the end of our 2018 fiscal year.

Item 11. EXECUTIVE COMPENSATION

The information required by Item 11 will be included in the section of the Proxy Statement entitled "Executive Compensation and Other Matters" under the following headings: "Compensation Discussion and Analysis," "Compensation Committee Report," "Summary Compensation and Other Tables," "Potential Payments upon Termination or Change in Control," "Principal Executive Officer Pay Ratio," and "Director Compensation," and in the section of the Proxy Statement entitled "Corporate Governance" under the heading "Compensation Committee Interlocks and Insider Participation."

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

The information required by Item 12 will be included in the Proxy Statement under the headings "Beneficial Ownership of Our Common Stock" and "Executive Compensation and Other Matters - Equity Compensation Plan Information" and is incorporated herein by reference.

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

The information required by Item 13 will be included in the Corporate Governance section of the Proxy Statement under the headings "Director Independence," "Director Relationships," "Indebtedness of and Transactions with Management," and "Certain Relationships and Related Person Transactions" and is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by Item 14 will be included in the Proxy Statement under the heading "Proposal 4: Ratification of Independent Auditors" and is incorporated herein by reference.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES
(a)(1) Financial Statements. The following financial statements and supplementary data are included in Item 8 of this report.

Financial Statements
Quarterly Financial Information
Reports of Independent Registered Public Accounting Firm
Consolidated Balance Sheets as of December 31, 2018 and 2017
Consolidated Statements of Income for the Years Ended December 31, 2018, 2017 and 2016
Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2018, 2017 and 2016
Consolidated Statements of Changes in Shareholders' Equity for the Years Ended December 31, 2018, 2017 and 2016
Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016

(a)(2) Financial Statement Schedules. All applicable financial statement schedules required under Regulation S-X have been included in the Notes to the Consolidated Financial Statements.

(a)(3) Exhibits. The exhibits listed below are filed as a part of this Annual Report on Form 10-K.

Exhibit No.	Description of Exhibit
2.1	Contribution Agreement dated as of May 9, 2017 (incorporated by reference to Exhibit 2.1 of the current report on Form 8-K filed on May 5, 2017)
3.1	Amended and Restated Articles of Incorporation of Live Oak Bancshares, Inc. (incorporated by reference to Exhibit 3.1 of the registration statement on Form S-1, filed on June 19, 2015)
3.2	Amended Bylaws of Live Oak Bancshares, Inc. (incorporated by reference to Exhibit 3.2 of the amended registration statement on Form S-1, filed on July 13, 2015)
4.1	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 of the registration statement on Form S-1, filed on June 19, 2015)
4.2	Registration and Other Rights Agreement between Live Oak Bancshares, Inc. and Wellington purchasers (incorporated by reference to Exhibit 4.2 of the registration statement on Form S-1, filed on June 19, 2015)
10.1	2008 Incentive Stock Option Plan, as amended (incorporated by reference to Exhibit 10.1 of the registration statement on Form S-1, filed on June 19, 2015) #
10.2	2008 Nonstatutory Stock Option Plan, as amended (incorporated by reference to Exhibit 10.2 of the registration statement on Form S-1, filed on June 19, 2015) #
10.3	Amended and Restated Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.4 of the quarterly report on Form 10-Q filed on August 8, 2016) #

10.4.1 2015 Omnibus Stock Incentive Plan (incorporated by reference to Exhibit 10.4 of the registration statement on Form S-1 filed on June 19, 2015) #

10.4.2 Amendment to 2015 Omnibus Stock Incentive Plan dated December 17, 2015 (incorporated by reference to Exhibit 10.4.2 of the 2015 10-K) #

10.4.3 2015 Omnibus Stock Incentive Plan as Amended and Restated effective May 24, 2016 (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed on May 27, 2016) #

10.4.4 Amendment to 2015 Omnibus Stock Incentive Plan dated May 15, 2018 (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed on May 18, 2018) #

10.5.1 Software Service Agreement between Live Oak Banking Company and nCino, LLC, dated November 1, 2012 (incorporated by reference to Exhibit 10.10 of the registration statement on Form S-1 filed on June 19, 2015)

10.5.2	Amendment to Software Service Agreement dated October 9, 2015, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.7.2 of the 2015 10-K)
10.5.3	Renewal Amendment to Software Service Agreement dated January 18, 2019, between Live Oak Banking Company and nCino, Inc.*
10.6.1	Form of Stock Option Award Agreement for executive officers under the 2015 Omnibus Stock Incentive Plan (incorporated by reference to Exhibit 10.8 of the 2015 10-K) #
10.6.2	Performance RSU Award Agreement for Neil L. Underwood (incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on March 25, 2016) #
10.6.3	Performance RSU Award Agreement with Stock Price Condition for Neil L. Underwood (incorporated by reference to Exhibit 99.2 of the current report on Form 8-K filed on March 25, 2016) #
10.6.4	Form of Performance RSU Award Agreement with Stock Price Condition for certain executive officers (incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on December 2, 2016) #
10.6.5	Form of Performance RSU Award Agreement with Stock Price Condition for certain executive officers (incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on February 2, 2017) #
10.6.6	Form of Performance RSU Award Agreement with Stock Price Condition for certain executive officers (incorporated by reference to Exhibit 10.7.6 of the 2017 10-K) #
10.6.7	RSU Award Agreement with Separation Agreement for Gregory B. Thompson dated February 12, 2018 (incorporated by reference to Exhibit 10.7.7 of the 2017 10-K) #
10.6.8	Amended Performance RSU Award Agreement with Stock Price Condition for Susan N. Janson*Amended Performance RSU Award Agreement with Stock Price Condition for Susan N. Janson* #
10.6.9	Amended form of Performance RSU Award Agreement with Stock Price Condition for certain executive officers (incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on February 15, 2019) #
10.6.10	RSU Award Agreement for M. Huntley Garriott* #
10.6.11	Performance RSU Award Agreement with Stock Price Condition for M. Huntley Garriott* #
10.6.12	Form of 2018 RSU Award Agreement for non-employee directors* #
21.1	Subsidiaries of the Registrant*
23.1	Consent of the Independent Registered Public Accounting Firm - Dixon Hughes Goodman LLP*
31.1	Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
31.2	Certification of Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
32	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

101	Interactive data files pursuant to Rule 405 of Regulation S-T: (i) Consolidated Balance Sheets as of December 31, 2018 and 2017; (ii) Consolidated Statements of Income for the Years Ended December 31, 2018, 2017 and 2016; (iii) Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2018, 2017 and 2016; (iv) Consolidated Statements of Changes in Shareholders' Equity for the Years Ended December 31, 2018, 2017 and 2016; (v) Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016; and (vi) Notes to Consolidated Financial Statements.*

* Indicates a document being filed with this Form 10-K.

** Furnished herewith. This exhibit shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section. Such exhibit shall not be deemed incorporated into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

# Denotes management contract or compensatory plan.

SIGNATURES

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

Live Oak Bancshares, Inc.
(Registrant)

Date: February 27, 2019 By: /s/ James S. Mahan III
James S. Mahan III
Chairman and Chief Executive Officer
(Principal Executive Officer)

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

	Date
/s/ James S. Mahan III James S. Mahan III Chairman and Chief Executive Officer (Principal Executive Officer)	February 27, 2019
/s/ S. Brett Caines S. Brett Caines Chief Financial Officer (Principal Financial Officer)	February 27, 2019
/s/ J. Wesley Sutherland J. Wesley Sutherland Chief Accounting Officer (Principal Accounting Officer)	February 27, 2019
/s/ William L. Williams III William L. Williams III Vice Chairman of the Board of Directors	February 27, 2019
/s/ William H. Cameron William H. Cameron Director	February 27, 2019
/s/ Diane B. Glossman Diane B. Glossman Director	February 27, 2019
/s/ Glen F. Hoffsis Glen F. Hoffsis Director	February 27, 2019
/s/ Howard K. Landis Howard K. Landis Director	February 27, 2019
/s/ Miltom E. Petty Miltom E. Petty Director	February 27, 2019

/s/ Jerald L. Pullins	
Jerald L. Pullins Director	February 27, 2019
/s/ Neil L. Underwood	
Neil L. Underwood Director	February 27, 2019