BOUNDLESS OPPORTUNITY

2019

2019 ANNUAL REPORT

LIVE OAK BANCSHARES

A special note:

March 27, 2020

To our shareholders,

While we were assembling our 2019 Annual Report, working with our finance, accounting and marketing teams, recapping a solid year for Live Oak Bank the world threw us a curveball, COVID-19.

While our vision for Live Oak certainly has not changed, and our commitment to our customers and our employees has not changed, how we forge our way to our goals through this unprecedented global event will certainly change.

We believe our technology infrastructure and the investments we have made to transform banking will certainly help us. We believe that the team we have in place is the best in the world, and we believe we can be a force for good for small businesses as our economy emerges from the storm.

One of our founding principles is, “soundness, profitability, and growth in that order.” As we navigate our new shared reality, this principle will continue to be at the forefront of our business as we seek to serve our small business customers in these unprecedented times.

James S Mahan

James S. "Chip" Mahan III
Chairman and Chief Executive Officer

TO OUR SHAREHOLDERS

For the first time in decades, it is clear to me that the banking industry has reached a pivotal point. The foundational systems we need to operate in the modern world are successfully being built and Live Oak Bank is eagerly in the process of adopting them. In short, there is light at the end of the tunnel.

It's been a complex path, and one that required dedication and patience to forge a new way. Community banks are traditionally not the pioneering kind, but then again, Live Oak is not your traditional bank. What we have built is complicated, takes investment and we strongly believe it is the only way.

To dissect what this means to you, Huntley Garriott, the president of Live Oak Bank, and Neil Underwood, president of Live Oak Bancshares, and I are going to address you separately. We will break down the impact of what we have built to show you how Live Oak has been preparing for this moment, and what it means for the future.

LET'S GET TO IT.

THE PAST

In 1994 when Mosaic and Netscape were launching, it was an exciting time for business and struck me as a great time to put a bank on the internet. My brother-in-law and I set out to do just that in 1995 with Security First Network Bank. Over the course of the next two decades, engineers and developers across the globe created incredible opportunities for all banks to shift from brick-and-mortar to apps at our fingertips.

Since then, we have seen digital advances bring banking to our computers, phones, watches and the voice-controlled devices on our kitchen countertops.

In 2020, we are now able to build next generation products for America's small business owners.

Live Oak Bank has been preparing our systems to build an entirely cloud-native, open, API-first bank. With these massive milestones in place, we will be able to do what no other bank in the country is doing – bank on a real-time core.

The new infrastructure is in the process of being in place and we expect to soon be ready to give America's small business owners a better way to bank.

THE PRESENT

Live Oak believes in fundamentally doing things differently. We always have. Customers today want better products, quick action and fair pricing. Community banks have struggled to devise ways to do this in a modern way. The challenge is having ancient software systems as your central infrastructure. Up until now, we have not been able to fundamentally change those systems and the definition of a community bank remains archaic.

How archaic? Simply look at a standard community bank investor presentation and you will see amazing similarities:

- Dots on a map noting branch locations
- Break outs of the deposit franchise by product and pricing of checking, savings, CDs, etc.
- Break out of the loan book

Fundamentally this is all a consolidated geographic real estate play.

Live Oak is dedicated to changing community banking from the ground up. We think things are changing rapidly and native mobile applications will rule the future, not branch networks.

For 12 years, we have built a loan origination engine that spans 33 industries in all 50 states. Our team of lenders generated exceptionally strong production in 2019, keeping the drumbeat of our business at a steady rhythm.

Layer the growth of our deposit platform on top of that and the bank is right where we need to be. Poised for the future.

We are now three months into live testing of a new deposits core built by Finxact. Finxact's platform, paired with the cloud-native services of our other ecosystem partners, creates the next generation infrastructure Live Oak must have to compete.

WE ARE PREPARED FOR THE NEXT CHAPTER OF BANKING.

So, what happens when you put the power of this new digital banking infrastructure on top of the nation's #1 SBA[1], #1 USDA[1], branchless, small business bank – Live Oak Bank?

BOUNDLESS OPPORTUNITY

THE FUTURE

Envision a day in the not so distant future where banking services (lending and deposits) are seamlessly integrated with small business accounting providers, payroll, or tax software. The businesses we serve typically have less than $5 million in revenues. They are orphaned by the rest of our industry, but they could be served by these highly sophisticated, next-generation cloud platforms.

The community bank of the future is one that is able to, for instance, embed the bank inside practice management software. That's important because practice management software is the real engine connecting small businesses with their customers. When you are fully integrated and have the ability to help business owners with better financial insight into their business, you will have changed the nature of the banking relationship from utility to necessity.

The SBA allows us to lend to approximately 1,000 industries[2]. There are approximately 1.2 million small business firms[3] (<100 employees) in the industries we currently serve. As we expand beyond the 33 verticals that we currently serve, all will need next generation banking services.

Over the past year we have also made more conventional, non-government guaranteed loans. It only makes sense! SBA and USDA represent a small portion of total loans in a particular vertical, therefore we expect to see meaningful growth.

As excited as we are about our bank, our future growth and possibilities, the threats to our industry are real and are directly in front of us.

Consider a Harris Poll survey[4] that found 64% of consumers would consider buying or applying for financial products from a tech company instead of traditional banks. Or, 81% of American consumers ages 18-34 would prefer tech companies over legacy banks. That same poll also shows:

- 72% of Americans think tech companies entering the financial services sector would pose a significant threat to smaller banks
- 64% of Americans think tech companies entering the financial industry would encourage traditional financial firms to improve their financial products

[1]Source: The data supplied by the SBA reflects 7(a) gross loan approvals during FY 2019; USDA.gov
[2]Source: Number of NAICS codes with SBA loan approvals between 2018-2019 from the 2010-Current SBA 7(a) Loan Data located at https://www.sba.gov/about-sba/open-government/foia
[3]Source: United States Census Bureau 2016 SUSB Annual Data Tables by Establishment Industry
[4]Source: Harris Poll survey commissioned Ondot Systems https://www.ondotsystems.com/press/20200303

This shows nearly all Americans would bank with tech giants, but at the same time there is distrust of them. The poll also found:

- 75% think tech companies are not transparent about how they use consumers' personal data[5]
- 74% of Americans think tech companies are more likely to sell consumers' personal financial information than traditional banks and credit unions

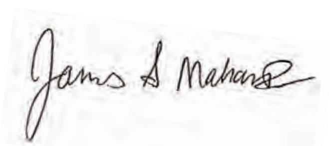
Having a banking charter and regulatory oversight gives customers confidence. It is clear to me that sophisticated adoption of fintech advancements coupled with the underpinning of regulatory protection is the only way to prevail. Live Oak is leading an industry pivot, and we are frankly far ahead of the curve.

Let me close by reflecting on an article my friend Bill Harris contributed to American Banker. You can read it at www.liveoakbank.com/billharris. It outlines how next generation systems hold the key to meeting the needs of consumers and small businesses alike.

He says, "The future is owned by companies agile enough to combine real-time apps and a bank charter."

FOLKS, WE HAVE THAT IN SPADES.

IF THE RACE GOES TO THE SWIFT AS HARRIS PREDICTS, **THEN WE ARE POSITIONED TO WIN.**



James S. "Chip" Mahan III
Chairman and Chief Executive Officer

[5]Source: https://www.americanbanker.com/news/consumers-of-nearly-all-ages-say-theyd-bank-with-tech-giants

BY ALL ACCOUNTS,

2019 WAS A TERRIFIC YEAR FOR LIVE OAK

We came into the year with an ambitious plan to continue to expand our lending franchise, to dramatically grow our balance sheet, and to invest in our people and our technology. We not only delivered on those objectives, but we spent the year building in order to succeed a rapidly evolving future. 2019 also marked my first calendar year as president of Live Oak Bank and my first contribution to the annual letter, and I couldn't be more proud about being part of this company.

Chip discussed our technology initiatives, where we are rebuilding the infrastructure of the banking industry from the core up. Doing that as a regulated bank involves much more than just writing code. It requires seamless integration across finance, IT, operations, risk and more. It has taken a concerted effort from our entire bank along with our ecosystem partners to position ourselves as an early adopter of a next-gen core platform.

Despite our maniacal focus on our technology initiatives, we didn't slow down building out the heart and soul of Live Oak, our small business lending franchise. We added multiple industry verticals over the course of the year to bring our total to 33, built out our team of general SBA lenders across the country, and expanded our capabilities in non-government guaranteed, commercial and industrial (C&I) lending.

THIS INVESTMENT NOT ONLY LED TO A RECORD YEAR FOR LOAN AND LEASE PRODUCTION AT LIVE OAK IN 2019, AS WE MADE **$2 BILLION OF LOANS AND LEASES ACROSS 1,070 SMALL BUSINESSES**, BUT IT HAS POSITIONED US WELL FOR FUTURE GROWTH.

To support this growth, we built our team to over 600 colleagues. Investing in our people has always been the hallmark of Live Oak, and that mission has only gotten more important as we have continued to grow. Our expanded training and development programs, wellness benefits, and facilities on campus are all commitments to the importance of our people – the only true differentiator in banking. We also took the opportunity to articulate our purpose, something all of us at the bank know to be truly special. Succinctly put, our purpose is to seek, serve and invest in the doers impacting the world. We fulfill that purpose through five core values: dedication, ownership, respect, innovation and teamwork. As anyone that has visited our campus can attest to, we have created a strong culture here at Live Oak and formally recognizing it has been an impactful exercise as we continue to build on our foundation.

As many of you are aware, in late 2018 we shifted our strategy and decided to hold more loans on our balance sheet. We made that decision knowing it would reduce our near-term earnings as gain-on-sale declined, but by replacing those earnings with less volatile, recurring net interest income we would emerge a stronger company. Over the course of the year we held over $625 million in government guaranteed loans that we historically would have sold, bringing the held for sale portfolio to almost $1 billion, providing not only a valuable source of earnings but also a source of contingent liquidity and capital.

To grow the loan and lease portfolio $1 billion over the course of the year, you also have to grow funding in-line. Our deposit platform was designed to do just that, by providing a great customer experience, a market rate of interest, and doing so extremely efficiently. We ended the year with over 48,000 deposit customers and $3 billion of retail deposits, all with just 12 bps of operating expenses. As market rates have continued to decline, the relative value of our deposit franchise becomes even more apparent, as we don't have to absorb the cost of a branch infrastructure the way most banks do.

As part of that strategic balance sheet shift, we set out a series of profitability targets that we expect to achieve as our balance sheet reaches scale. We made progress on those targets over the course of the year, but we realize in order to hit those we must be extremely mindful of our expenses. Year over year we held expense growth to 8%, despite growing our balance sheet by more than 30%.

AT THE HEART OF EVERY LOAN WE MAKE IS SAFETY AND SOUNDNESS.

As we continue to grow our lending franchise, we stay true to our core beliefs and refuse to cut corners on credit quality. With each loan, we continue to fully underwrite, perform site visits, and maintain pricing discipline. Our credit metrics continue to display the strength of our portfolio.

CREDIT STATS

	2019	2018	2017	2016	2015
PROVISION FOR LOAN AND LEASE LOSSES	$19,573	$13,058	$9,536	$12,536	$3,806
NET CHARGE-OFFS TO AVERAGE LOANS AND LEASES HELD FOR INVESTMENT	0.17%	0.31%	0.32%	0.29%	0.37%
ALLOWANCE FOR LOAN AND LEASE LOSSES TO LOANS AND LEASES HELD FOR INVESTMENT	1.82%	1.76%	1.80%	2.01%	2.65%
UNGUARANTEED NONPERFORMING LOANS, LEASES AND FORECLOSURES	$19,028	$14,636	$3,700	$5,030	$2,410
UNGUARANTEED NONPERFORMING LOANS, LEASES AND FORECLOSURES TO TOTAL ASSETS	0.40%	0.40%	0.13%	0.29%	0.23%
UNGUARANTEED CRITICIZED AND CLASSIFIED LOANS AND LEASES TO HELD FOR INVESTMENT UNGUARANTEED LOANS AND LEASES	6.77%	5.12%	3.39%	4.03%	9.05%

We are fortunate to have about 500 of our 600 employees work on our Wilmington campus. So, it should come as no surprise that we are deeply committed to our community. We are proud of Live Oak's charitable giving last year that totaled $1.3 million, with 90 percent directed to local organizations.

Last year also marked the launch of the Cape Fear Collective (CFC) with the support of Live Oak and many other community partners. CFC is a collective impact and data science nonprofit backbone organization based in Wilmington. CFC's mission is to scale big data, fundraising, social innovation, and large-scale initiative management to a six-county region in Southeastern North Carolina.

CFC employs data scientists, strategists, journalists, and process improvement experts who partner with anchor institutions from across the region. Together, they create sustainable impact programs that address social progress across a variety of sectors including economic development, health and human services, climate change, and housing. While we are in the early innings, it is exciting work that strives to make real change in the community where we live and work. We also remain committed to our sustainability efforts. Last year, we originated $181.7 million of renewable energy loans across solar and bio-energy. And, we installed our own panels as well on our campus, generating 15-20% of our energy needs.

The banking landscape continues to change quickly, with technology as a core driver of that change. I increasingly ascribe to the theory that to be successful you need to be really big or really specialized. Live Oak has, since inception, had a laser focus on small businesses. We have built technology solutions designed to support our customers, recruited world class talent and fostered a culture that is adaptable to change. With relentless focus on every aspect of the customer journey and guiding principles rooted in safety and soundness, we deliver what small business owners need — capital.

That's how we became the nation's top SBA lender in 2018 and extended our lead in 2019. We've taken a similar approach to USDA lending, a complicated process that requires expertise and efficient workflow, and became the top USDA lender last year as well. As we evaluate what the future holds for us, we believe that our domain expertise within our industry verticals will allow us to migrate up-market to incremental C&I lending opportunities. And the technology that we are building will provide us with additional deposit, payment, and lending products to offer to small businesses.

WE ARE DRIVEN TO SERVE OUR CUSTOMERS AND TO PROVIDE THEM WITH THE TOOLS, ADVICE AND CAPITAL THEY NEED TO SUCCEED.

M. Huntley Garriott, Jr.
President - Live Oak Bank

AS CHIP ALLUDED TO EARLIER, THE FINANCIAL SERVICES INDUSTRY IS AT A MAJOR INFLECTION POINT.

Cloud computing has ushered in a whole new class of competition. What used to cost $5 million now costs $5,000. What used to take 12 months now takes 12 hours. The evolution of the costly "data center" is now replaced with a superior alternative. Efficiencies, measured in orders of magnitude, allow fintechs to innovate at such an accelerated rate, setting a new standard for the customer journey, and banks, saddled with massive technology debt, are looking for answers.

In 2019, global fintech funding topped $24.6 billion through Q3[6], already surpassing 2017's total. This represents new R&D capital fueling fintechs, which in many cases, compete with the standard banking model. Adding to the pressure, the world's largest banks have the scale to invest. To put that in perspective, in 2019 JP Morgan invested $11 billion in technology[7].

THE TIME IS NOW.

We have been diligently preparing. From nCino, to the joint venture Apiture, to Live Oak Ventures' strategic investments in Finxact, Payrailz, DefenseStorm, Greenlight and local Wilmington company Kwipped, we have been paving the way for Live Oak Bank to be at the forefront of digital transformation.

Last year marked the launch of Canapi Ventures, a set of fintech funds focused on fueling innovation around digital transformation in financial services. Canapi Ventures' goal is to find high potential fintech companies with disruptive technologies which, in addition to anticipated financial benefit, will allow Live Oak and other investors in the funds a first look at the much-needed innovation in our space. The funds' structure is as follows:

TARGETING $600M ACROSS TWO FINTECH-FOCUSED VENTURE CAPITAL FUNDS

SBIC FUND ($500M)	SIBLING FUND ($100M)
— BANKS WITH +/- $10B ASSETS	— NON-BANK STRATEGICS, TRADITIONAL LPS & BANKS WITH LESS THAN $10B ASSETS
THE FUNDS PLAN TO MAKE ELIGIBLE INVESTMENTS IN PARALLEL ON A PRO RATED BASIS	
— US INVESTMENTS SCOPE - FINTECH VOLCKER COMPLIANT CRA ELIGIBLE	— US INVESTMENTS GLOBAL OPPORTUNISTIC SCOPE - FINTECH

[6]Source: CBI Insights Global Fintech Report, Q3 2019
[7]Source: https://www.jpmorganchase.com/corporate/news/stories/tech-investment-could-disrupt-banking.htm

In the first quarter of 2020, we have raised just over $550 million, with a significant share of the invested capital coming from banks and bank holding companies. These banks, known as the Canapi Alliance, are expected to be involved in the Funds' portfolios, not just as investors but as potential partners and customers to the companies in the Funds' portfolios. These banks represent the innovative, progressive companies who recognize the need for digital transformation at its core.

We anticipate that the Funds' initial equity investments will generally range from $10-15 million per company for earlier stage deals, and from $20-40 million for growth and later stage deals. The Funds may also occasionally consider seed-stage investments in companies led by experienced founders.

Canapi Ventures expects to invest the $600 million in aggregate across 15-25 portfolio companies. This projects to an average of four new investments per year during the five-year investment period (although the pace of deployment may vary), with the potential for follow-on investments extending beyond the investment period.

INVESTMENT STRATEGY

POSITION	Lead, co-lead or co-invest
INVESTED PER COMPANY	$10M - $40M
STAGE	Series A to Series C
GEOGRAPHY	US focus, globally opportunistic
GOVERNANCE	Board representation on led or co-led deals
PORTFOLIO	15-25 companies

A key differentiating point of Canapi Ventures as compared to other venture capital funds will be the Canapi Alliance, a group of diverse banks who will invest only in the SBIC Fund (with a few exceptions). Canapi Alliance members, in addition to providing capital, are also ready and willing to be actively involved with the portfolio companies of the Funds for educational and market intelligence purposes via events, and hopefully also as potential customers or partners of the portfolio companies.

In this way, the Canapi Alliance will help to accelerate portfolio companies' growth and potentially de-risk early investment. This is a unique value proposition that few, if any, other venture capital funds can offer, and we believe this differentiator will lead to superior deal flow for Canapi Ventures.

IN TERMS OF CORE INVESTMENT FOCUS, THE CANAPI VENTURES TEAM WILL FOCUS ON FOUR MAIN THEMES:

UNDERSTANDING AND REACHING THE CUSTOMER

- Data Analytics & AI
- Consumer Fintech
- Digital Marketing Tech

SUPPORTING DIGITAL MIGRATION THROUGH NEW PRODUCTS

- Payments
- InsurTech
- WealthTech
- Real Estate Tech

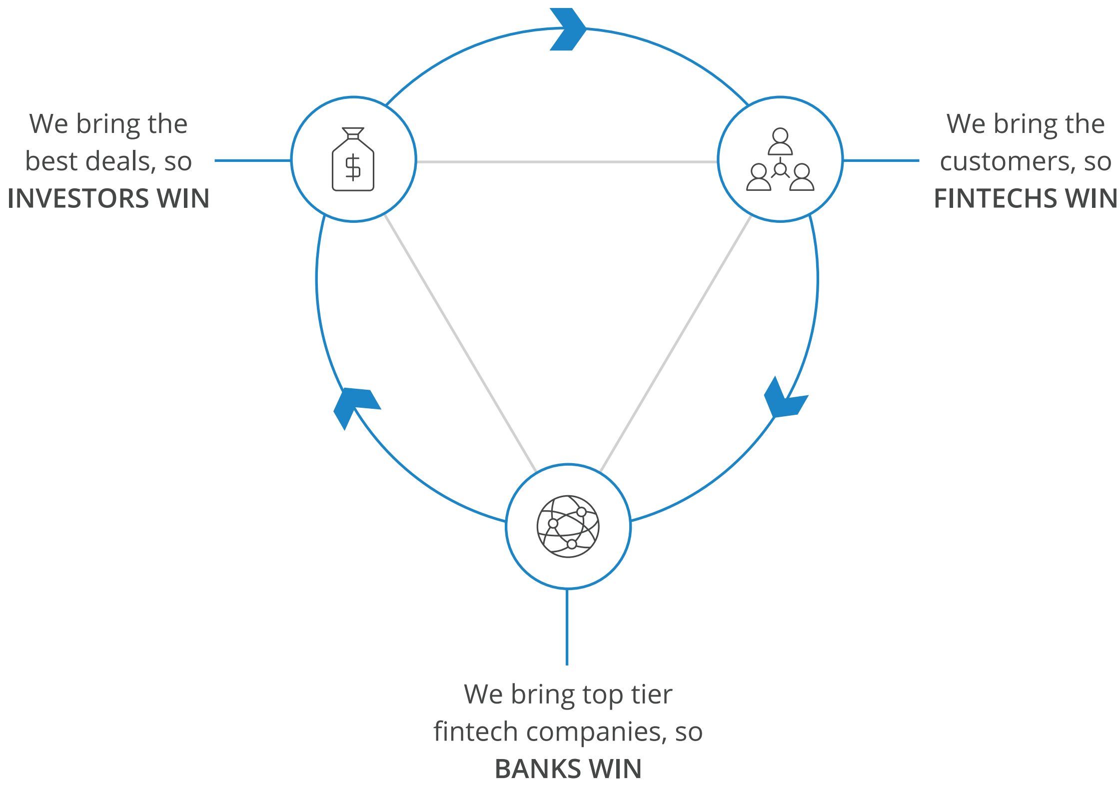
PROMOTING A COMPETITIVE AND STABLE INFRASTRUCTURE

- Core Banking Tech
- Capital Markets Tech
- Enterprise Blockchain & DLT

RUNNING AN EFFICIENT AND SECURE COMPLIANCE RISK OPERATION

- RegTech
- Cybersecurity
- ID Management & Fraud Detection

CANAPI VENTURES FACILITATES A TRUE WIN, WIN, WIN WITH ALL OUR STAKEHOLDERS:



The convergence of banking and fintech is upon us. Investing into innovative companies will allow Live Oak to stay on the forefront of digital transformation. We'll be able to deliver on our maniacal quest of treating every customer like the only customer, and delighting them in every interaction along the way—both personal and digital.

Neil L. Underwood
President - Live Oak Bancshares

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, 2019

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	**26-4596286**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1741 Tiburon Drive, Wilmington, NC	**28403**
(Address of principal executive offices)	(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	Trading Symbol(s)	Name of each exchange on which registered
Voting Common Stock, no par value per share	**LOB**	**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 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, 2019, was approximately $518,033,826. 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:

As of February 26, 2020, there were 37,616,203 shares of the registrant's voting common stock outstanding and 2,715,531 shares of the registrant's non-voting common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for the 2020 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, 2019, 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, 2019

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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,” “continues,” “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 (“USDA”);

- 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 or to develop a next-generation banking platform, 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 or USDA lending programs and investment tax credits;

- changes in political and economic conditions;

- the impact of heightened regulatory scrutiny of financial products and services, primarily led by the Consumer Financial Protection Bureau and various state agencies;

- 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 USDA Rural Energy for America Program ("REAP"), Water and Environmental Program (“WEP”), Business & Industry ("B&I") and Community Facilities 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, 2020, there were 341 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, 2019, the Company had 603 full-time employees and 32 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, 2019:

- Canapi Advisors, LLC, formed in September 2018 for the purpose of providing investment advisory services to a series of new funds focused on providing venture capital to new and emerging financial technology companies.

- 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, formed in February 2015 for the purpose of providing Company employees and business visitors an on-site restaurant location; and

- 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.

504 Fund Advisors, LLC (“504FA”), was formed in June 2013 to serve as the investment advisor to The 504 Fund, a closed-end mutual fund organized to invest in SBA section 504 loans. During 2019, 504FA completed the transfer of its advisory agreement and was dissolved in December 2019. In 2019, Live Oak Clean Energy Financing LLC, which was formed in November 2016 for the purpose of providing financing to entities for renewable energy applications, became a subsidiary of the Bank. 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 a person 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 voting common stock is registered under Section 12 of the Exchange Act. The regulations provide a procedure for challenging rebuttable presumptions of control.

On January 30, 2020, the Federal Reserve adopted a final rule revising the "controlling influence" prong of its "control" rules promulgated under the BHCA. The final rule largely reaffirms the Federal Reserve's existing framework for analyzing "controlling influence" but with some new rules for presumptions of control for investments in and by banking organizations that represent more than 4.9% and less than 24.9% of control over any class of voting securities. The final rule becomes effective on April 1, 2020 and we are currently assessing its potential impact on our operations.

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 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, 2019, the Company's risk-based capital ratios, as calculated under applicable capital standards were 14.85% common equity Tier 1 capital to risk weighted assets, 14.85% Tier 1 capital to risk weighted assets, and 16.10% 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, 2019 was 10.65% compared to 13.40% at December 31, 2018. 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, 2019, 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, cease receipt of deposits from correspondent banks, or dismiss directors or officers, and restrictions on interest rates paid on deposits, compensation of executive officers, and capital distributions by the parent holding company. "Critically undercapitalized" institutions are subject to the appointment of a receiver or conservator, may not make any payment of principal or interest on certain subordinated debt, extend credit for a highly leveraged transaction, or enter into any material transaction outside the ordinary course of business.

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.

On September 17, 2019, the FDIC passed a final rule on the CBLR, setting the minimum required CBLR at 9 percent. The rule went into effect on January 1, 2020. Under the final rule, 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 is not required to calculate the existing risk-based and leverage capital requirements. A bank is also 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 has not elected to implement the CBLR framework at this time.

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 2019 and 2018 were $3.4 million and $3.2 million, respectively. 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. These assessments continued until the FICO bonds matured, which was 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 $3.3 million at December 31, 2019. 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 Office of the Comptroller of the Currency and the FDIC have proposed changes to the regulations under the Community Reinvestment Act. The Company will monitor the proposed changes as they make their way through the agency rulemaking process.

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. The Federal Reserve, Office of the Comptroller of Currency, FDIC, SEC, and Commodity Futures Trading Commission finalized amendments to the Volcker Rule in 2019, which relate primarily to the Volcker Rule's proprietary trading and compliance program requirements. These amendments to the Volcker Rule became effective January 1, 2020, with compliance required by January 1, 2021. The amendments do not change the Volcker Rule's general prohibitions, but they offer certain clarifications and a simplified approach to compliance. On January 30, 2020, the agencies proposed further amendments to the Volcker Rule's funds provisions, which would, if adopted, clarify key definitions and add new, and modify certain existing, exclusions from the definition of covered fund. The proposal is currently open for comment, and the timeline for finalization remains uncertain. 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. The Company and Live Oak Bank are currently below these thresholds and thus exempt from the Volcker Rule.

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, 2019, the Bank's C&D concentration as a percentage of bank capital totaled 147.1% and the Bank's CRE concentration, net of owner-occupied loans, as a percentage of capital totaled 146.9%.

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.

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 2020 projections, the effective tax rate for 2020 is anticipated to be approximately 25%; however, management continues to explore investments which generate investment tax credits and as a result there can be no assurance as to the actual effective rate because it will be dependent upon the nature and amount of future income and expenses as well as actual 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. On September 17, 2019, the FDIC passed a final rule on the community bank leverage ratio, setting the minimum required community bank leverage ratio at 9 percent. The rule went into effect on January 1, 2020. 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 2020. 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 60% to 80% 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. These changes had 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. In response to the March 2018 OIG's report, the SBA issued a proposed rule in September of 2018. In February 2020, the SBA issued a final interim rule on affiliation standards, including a process for the SBA to review poultry and agriculture contracts for an eligibility determination on affiliation. We are still assessing the potential impact of these final interim rules, including potential impacts on verticals outside of poultry lending. 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.

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 lending 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, Apiture LLC ("Apiture") has provided the Bank significant engineering, development, professional and other services. 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. We also rely on numerous other vendors and third parties to provide software and solutions comprising the new banking platform that we are developing. 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 next-generation banking platform services that we intend to offer, and our business, financial condition, results of operations and prospects could 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, depositors and other customers. 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 many 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, 2019, the fair value of our investment securities portfolio was approximately $540.0 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.

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.

In addition, the adoption of Accounting Standards Update ("ASU") 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments," as amended, on January 1, 2020 will impact our methodology for estimating the allowance for loan and lease losses. See Note 1. Organization and Summary of Significant Accounting Policies under the subheading entitled "Recent Accounting Pronouncements" further discussion of this new standard.

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 2020. The determination of 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 those 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 retail deposit growth and retention, the sale of loans in the secondary market, 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, failures of or interruptions to the next-generation banking platform we are developing, 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.

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.

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, 2019, we had six OREO properties with an aggregate carrying value of $5.6 million.

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 other third parties, including financial statements, property appraisals, title information, employment and income documentation, account information and other financial information which may include information furnished by sellers to our borrowers in connection with business acquisitions that we finance. We may also rely on representations of clients and other third parties 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, 2019, 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.

We are focused on our long-term growth and have undertaken various new business initiatives, many of which involve activities that are new to us, or in some cases, are in the early stages of development. 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 for these products and services are not fully developed. For example, we have expanded our services in the government contracting industry to provide consulting and merger and acquisition advisory services. We have also launched a Venture Banking vertical where we provide credit and other financial services to venture-backed businesses that often have limited operating histories and are incurring significant losses. During 2019, our subsidiary Canapi Advisors began providing investment advisory services to a series of new funds focused on providing venture capital to new and emerging financial technology companies. Given our evolving business and product diversification, these new initiatives may subject us to, among other risks, increased business, reputational and operational risk, as well as more complex legal, regulatory and compliance costs and risks.

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.

We are subject to risk in connection with our strategic activities, including acquisitions, joint ventures, partnerships, and investments.

We are engaged, and may in the future engage, in strategic activities, including acquisitions, joint ventures, partnerships, investments or other business growth initiatives or undertakings. There can be no assurance that we will successfully identify appropriate opportunities, that we will be able to negotiate or finance such activities or that such activities, if undertaken, will be successful.

Our ability to execute strategic activities and new business initiatives successfully will depend on a variety of factors. These factors likely will vary based on the nature of the activity but may include our success in integrating an acquired company or a new internally-developed growth initiative into our business, operations, services, products, personnel and systems, operating effectively with any partner with whom we elect to do business, meeting applicable regulatory requirements and obtaining applicable regulatory licenses or other approvals, hiring or retaining key employees, achieving anticipated synergies, meeting management's expectations, actually realizing the anticipated benefits of the activities, and overall general market conditions. Our ability to address these matters successfully cannot be assured. In addition, our strategic efforts may divert resources or management's attention from ongoing business operations and may subject us to additional regulatory scrutiny and potential liability. If we do not successfully execute a strategic undertaking, it could adversely affect our business, financial condition, results of operations, reputation or growth prospects. In addition, if we were to conclude that the value of an acquired business had decreased and that the related goodwill had been impaired, that conclusion would result in an impairment of goodwill charge to us, which would adversely affect our results of operations.

In addition, in order to finance future strategic undertakings, we might require additional financing, which might not be available on terms favorable to us, or at all. If obtained, equity financing could be dilutive and the incurrence of debt and contingent liabilities could have a material adverse effect on our business, results of operations or financial condition.

Our investments in financial technology companies and initiatives, including the activities of our subsidiary Canapi Advisors, subject us to material financial, reputational and strategic risks.

Our investments in various financial technology companies have had a significant impact on our results of operations, and we anticipate they will continue to have a significant impact on our results of operations in the future. Investments where we have the ability to exercise significant influence but not control over the operating and financial policies of the investee are accounted for using the equity method of accounting. For investments accounted for under the equity method, we increase or decrease our investment by our proportionate share of the investee's net income or loss. Those investments where we are not able to exercise significant influence over the investee are accounted for under ASU 2016-01, where changes in fair value resulting from observable price changes arising from orderly transactions are recognized in net income. We also periodically evaluate our investments for impairment. See Note 1. Organization and Summary of Significant Accounting Policies under the subheading entitled "Investments" for more information.

Any earnings from our financial technology investments can be volatile and difficult to predict. Furthermore, we invest in many of these financial technology companies for strategic purposes. Where we are a minority shareholder, we may be unable to influence the activities of these organizations which could have an adverse impact on our ability to execute our strategic initiatives and successfully develop and implement the banking platform we are developing with these and other partners.

Our subsidiary Canapi Advisors is an investment advisor to Canapi Ventures, a series of new funds focused on providing venture capital to new and emerging financial technology companies. Canapi Ventures plans to invest in early to growth-stage companies that may include companies that utilize advanced science, technology, engineering and/or mathematics to innovate in the financial technology market. Investments in these companies involve a high degree of business and financial risk that can result in substantial losses. These companies may be unseasoned, unprofitable or have no established operating histories or earnings and may lack technical, marketing, financial and other resources. These companies often have the need for substantial additional capital to support expansion or to achieve or maintain a competitive position. Less established companies tend to have lower capitalization and fewer resources and, therefore, are often more vulnerable to financial failure. These companies may be dependent upon the success of one product or service, a unique distribution channel, or the effectiveness of its manager or management team. The failure of this one product, service or distribution channel, or the loss or ineffectiveness of a key executive or executives within the management team may have a materially adverse impact on such companies. Such companies may face intense competition, including competition from companies with greater financial resources, more extensive development, manufacturing, marketing and service capabilities and a larger number of qualified managerial and technical personnel. If Canapi Advisors is unable to successfully identify investment opportunities, it will likely lose the capital that it invests on behalf of the fund's investors, including the capital that we will invest, and will not generate any carried interest for the benefit of Live Oak Bancshares, which would have a materially adverse effect on our results of operations, our reputation and our ability to raise successive funds for similar purposes.

Many of the financial technology companies in which we invest present risks similar to those in which Canapi Ventures will invest. The possibility that the companies in which we and Canapi Ventures invest will not be able to commercialize their technology or product concept presents significant risk to our business operations and financial results. These companies tend to lack management depth, to have limited or no history of operations and to not have attained profitability. Additionally, although some of these companies may already have a commercially successful product or product line at the time of investment, technology products and services often have a more limited market or life span than products in other industries. Thus, the ultimate success of these companies may depend on their ability to continually innovate in increasingly competitive markets. Most of the companies in which we and Canapi Ventures invest will require substantial additional equity financing to satisfy their continuing growth and working capital requirements. Each round of venture financing is typically intended to provide a company with enough capital to reach the next stage of development. The circumstances or market conditions under which such companies will seek additional capital is unpredictable. It is possible that one or more of such companies will not be able to raise additional financing or may be able to do so only at a price or on terms which are unfavorable.

Our investments in other companies may be illiquid.

The equity securities of the companies in which we and Canapi Ventures invest are at the time of acquisition unmarketable and illiquid, and there can be no assurance that a ready market for these securities will ever exist. Such securities generally cannot be sold publicly without prior agreement with the issuer to register the securities under the Securities Act or by selling such securities under Rule 144 or other provisions of the Securities Act which permit only limited sales under specified conditions. We generally will realize the value of such securities only if the issuer is able to make an initial public offering of its shares or enters into a business combination with another company which purchases our equity securities or exchanges them for publicly traded securities of the acquirer. The feasibility of such transactions depends upon the company's financial results as well as general economic and equity market conditions. Furthermore, even if the equity securities owned become publicly traded, our ability to sell such securities may be limited by the lack of or limited nature of a trading market for such securities. There can be no assurance that the value at which we carry these assets will necessarily reflect the amount which could be realized upon a sale or other liquidity event.

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.

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 and partners 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 identify or 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 disease or other pandemic events, such as the coronavirus or avian influenza, or the perception that outbreaks may occur, could have a material adverse effect on our business.

Pandemic events beyond our control could have a material adverse effect on our business, financial condition, results of operations and prospects. For example, there are broad and continuing concerns related to the potential effects of coronavirus on international trade (including supply chains and export levels), travel, employee productivity and other economic activities that may have a destabilizing effect on financial markets and economic activity. In addition, 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.

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, our technology and other strategic partners, our 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, 2020, our directors and executive officers and their related entities currently beneficially own, in the aggregate, approximately 25.1% 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.

Congress may consider 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.

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 Wall Street Reform and Consumer Protection Act, or 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 40,318,407 shares of common stock outstanding at January 31, 2020. In addition, as of January 31, 2020, there were outstanding options to purchase 2,513,862 shares of our common stock that, if exercised, will result in these additional shares becoming available for sale. Also, as of January 31, 2020, there were 457,152 outstanding restricted stock units that vest over time and 3,154,324 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.

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	
	1805 Tiburon Dr	2019	80,972	
	1811 Tiburon Dr	2019	24,329	
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
Raleigh, NC Office	1017 Main Campus Dr., Ste. 3200	2019	3,889	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, 2019, 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.

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 January 31, 2020, there were 40,318,407 shares outstanding (comprised of 37,602,876 voting common shares and 2,715,531 non-voting common shares) and 344 holders of record (comprised of 341 holders of record for voting common shares and 3 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 shareholders 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, 2019, 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.

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,				
	2019	2018	2017	2016	2015
Income Statement Data					
Net interest income	$ 140,082	$ 108,043	$ 78,034	$ 42,649	$ 25,589
Provision for loan and lease loss	19,573	13,058	9,536	12,536	3,806
Noninterest income	67,880	103,765	172,921	93,539	84,328
Noninterest expense	164,924	152,704	143,165	106,445	71,715
Income, before income taxes	23,465	46,046	98,254	17,207	34,396
Income tax (benefit) expense	5,431	(5,402)	(2,245)	3,443	13,795
Net income	18,034	51,448	100,499	13,764	20,601
Net income attributable to noncontrolling interest	—	—	—	9	24
Net income to common shareholders	18,034	51,448	100,499	13,773	20,625
Period End Balances					
Assets	4,814,970	3,670,449	2,758,474	1,755,261	1,052,622
Loans held for sale	966,447	687,393	680,454	394,278	480,619
Loans and leases held for investment	2,647,299	1,843,419	1,343,973	907,566	279,969
Allowance for loan and lease losses	48,247	32,434	24,190	18,209	7,415
Deposits	4,229,122	3,149,583	2,260,263	1,485,076	804,788
Borrowings	14	1,457	26,564	27,843	28,375
Shareholders' equity	532,386	493,560	436,933	222,847	199,488
Per Common Share Data					
Net income per share - basic	0.45	1.28	2.75	0.40	0.66
Net income per share - diluted	0.44	1.24	2.65	0.39	0.65
Operating net income per share (Non-GAAP) - basic (1)	0.48	1.36	1.29	0.59	0.54
Operating net income per share (Non-GAAP) - diluted (1)	0.47	1.32	1.25	0.57	0.53
Dividends declared	0.12	0.12	0.10	0.07	0.10
Book value	13.20	12.29	10.95	6.51	5.84
Tangible book value (1)	13.20	12.29	10.85	6.51	5.84

	As of and for the Year Ended December 31,				
	2019	2018	2017	2016	2015
Performance Ratios					
Return on average assets	0.42%	1.52%	4.55%	0.96%	2.26%
Return on average equity	3.46	11.00	33.80	6.55	14.52
Net interest margin	3.65	3.62	3.92	3.28	3.26
Efficiency ratio (1)	79.54	72.10	57.05	78.16	65.25
Noninterest income to total revenue	32.44	48.99	68.91	68.68	76.72
Average equity to average assets	12.15	13.83	13.46	14.63	15.53
Dividend payout ratio (inclusive of tax distributions)	26.67	9.38	3.64	17.50	15.15
Selected Loan Metrics					
Loans and leases originated	$2,001,886	$1,765,680	$1,934,238	$1,537,010	$1,158,640
Guaranteed loans sold	340,374	945,178	787,926	761,933	640,886
Average net gain on sale of guaranteed loans	84.79	80.91	100.38	98.86	105.14
Adjusted average net gain on sale of guaranteed loans (1)	93.58	80.98	100.53	-	-
Outstanding balance of sold loans serviced:					
Guaranteed	2,746,480	3,045,460	2,680,641	2,278,618	1,779,989
Unguaranteed	224,127	174,066	169,355	145,099	178,036
Total	2,970,607	3,219,526	2,849,996	2,423,717	1,958,025
Asset Quality Ratios					
Allowance for loan and lease losses to loans and leases held for investment	1.82%	1.76%	1.80%	2.01%	2.65%
Net charge-offs	$ 3,760	$ 4,814	$ 3,555	$ 1,742	$ 798
Net charge-offs to average loans and leases held for investment	0.17%	0.31%	0.32%	0.29%	0.37%
Nonperforming loans	$ 76,307	$ 57,690	$ 23,480	$ 23,781	$ 12,367
Foreclosed assets	5,612	1,094	1,281	1,648	2,666
Nonperforming loans (unguaranteed exposure)	17,908	14,488	3,610	4,784	2,037
Foreclosed assets (unguaranteed exposure)	1,120	148	90	246	373
Nonperforming loans not guaranteed by the U.S. government and foreclosed assets	19,028	14,636	3,700	5,030	2,410
Nonperforming loans not guaranteed by the U.S. government and foreclosed assets to total assets	0.40%	0.40%	0.13%	0.29%	0.23%
Capital and Liquidity Ratios					
Common equity tier 1 capital (to risk-weighted assets)	14.85%	17.10%	17.81%	15.31%	23.22%
Total capital (to risk-weighted assets)	16.10	18.28	18.91	16.56	24.12
Tier 1 risk-based capital (to risk-weighted assets)	14.85	17.10	17.81	15.31	23.22
Tier 1 leverage capital (to average assets)	10.65	13.40	15.50	12.00	18.36

(1) 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.

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, 2019 and 2018 and results of operations for each of the years in the three-year period ended December 31, 2019. 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 financial holding company and 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) Loan program and the U.S. Department of Agriculture ("USDA") Rural Energy for America Program ("REAP"), Water and Environmental Program ("WEP") and Business & Industry ("B&I") 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 its balance sheet. Management believes this decision will reduce future earnings volatility and maximize long-term profitability. This strategic change had an immediate impact 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 consequence of increased net interest income.

In 2018, the Company formed Canapi Advisors, LLC for the purpose of providing investment advisory services to a series of new funds focused on providing venture capital to new and emerging financial technology companies. In 2019, Live Oak Clean Energy Financing LLC ("LOCEF") became a wholly owned subsidiary of the Bank. LOCEF was formed in November 2016 as a subsidiary of the Company for the purpose of providing financing to entities for renewable energy applications. 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 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. In 2019, 504FA exited as advisor for the 504 Fund and the Company subsequently dissolved this legal entity.

The Company generates revenue primarily from net interest income and secondarily through origination and sale of government guaranteed 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 2019:

- Loans and leases held for sale and investment increased by $1.08 billion, or 42.8%, to $3.61 billion at the end of 2019 as a result of over $2.00 billion in loan originations in combination with executing the strategic decision to retain higher levels of loans.

- Guaranteed loans eligible for sale increased by $564.0 million, or 157.9%, as a result of robust government guaranteed loan origination volume and the aforementioned loan retention strategy.

- Concurrent with the intentional lowering of guaranteed loan sale volumes in 2019, the average gain per million on sold loans increased from $80.9 thousand in 2018 to $84.8 thousand in 2019. This increase in premium values during 2019 was influenced by the mix of loans sold by the Company along with the improving strength of market conditions for the purchase of guaranteed loans. Compared to 2018, guaranteed loan sale volume decreased $604.8 million, or 64.0%, while net gains on sales of loans declined $46.2 million, or 61.4%.

- Investment securities available-for-sale increased $159.6 million, or 41.9%, to enhance liquidity options while also improving asset-liability repricing mix and duration.

- Combined net interest income and loan servicing revenue increased by $31.0 million, or 22.6%, to $168.1 million in 2019.

- Total nonperforming unguaranteed loans and leases as a percentage of total loans and leases held for investment decreased from 0.79% at the end of 2018 to 0.68% at the end of 2019.

- Net charge-offs as a percentage of average held for investment loans and leases, for the years ended December 31, 2019 and 2018, were 0.17% and 0.31%, respectively.

- Total deposits rose by 34.3% to $4.23 billion at the end of 2019 following successful deposit gathering campaigns to support higher loan retention.

- Income tax expense increased $10.8 million, This increase was largely the result of planned reductions in the solar panel leasing activity for 2019 which negatively impacted the annual effective tax rate.

- Reported net income decreased by 64.9% from 2018 to $18.0 million as discussed in the opening to the section titled Results of Operations.

- Investment in growth continued with the hiring of 11 seasoned SBA generalists along with ongoing diversification of lending activities, such as the entry into venture banking by providing financing and banking solutions to early and expansion stage venture-backed companies.

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 2019 demonstrated a continuation of 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. Management anticipates that the Company's held-for-sale and held-for-investment loan portfolios will continue to grow as a result of healthy origination volumes and higher levels of loan retention that are 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, 2019 vs. 2018

The Company reported net income available to common shareholders totaling $18.0 million, or $0.44 per diluted share, for 2019 compared to $51.4 million, or $1.24 per diluted share, for 2018.

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

- The strategic shift in the latter part of 2018 to hold substantially more of its eligible-for-sale production on balance sheet resulted in lower net income in the near-term by significantly decreasing net gains on sales of loans by $46.2 million, or 61.4%. The volume of guaranteed loan sales in 2019 declined to $340.4 million compared to $945.2 million in 2018;

- The provision for loan and lease losses increased $6.5 million primarily due to significant portfolio growth combined with an increase in criticized and classified loans and leases;

- Increased salaries and employee benefits of $13.2 million, or 17.1% largely due to a reversal of $4.5 million in accrued incentive compensation in the latter part of 2018 combined with ongoing investment in workforce to support growth and a variety of initiatives;

- The flow-through loss from investments accounted for under the equity method totaled $7.9 million, largely due to the Company’s ownership in Apiture, LLC, compared to $386 thousand for 2018; and

- Income tax expense increased $10.8 million. This increase was largely the result of planned reductions in the solar panel leasing activity for 2019 which negatively impacted the annual effective tax rate.

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

- Increased net interest income of $32.0 million, or 29.7%, 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; and

- Negative loan servicing revaluation decreased by $14.0 million, or 74.4%, principally due to improving market conditions, such as increased premiums, for sold loans.

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;

- 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.

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, 2019 vs. 2018

For 2019, net interest income increased $32.0 million, or 29.7%, to $140.1 million compared to $108.0 million in 2018. This increase was principally due to the 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 and fortify its liquidity profile. Average interest earning assets rose by $853.7 million, or 28.6%, to $3.83 billion for 2019 compared to $2.98 billion for 2018, while the yield on average interest earning assets rose by 49 basis points to 5.95% for 2019 versus 5.46% for 2018. 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 2019 increased 46 basis points to 2.38%, and the average balance in interest bearing liabilities increased by $843.1 million, or 29.7% 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, resulting in increased interest income of $65.3 million versus increased interest expense of $33.4 million for 2019. For 2019 compared to 2018, net interest margin increased from 3.62% to 3.65%. This increase in margin for the year was largely impacted by the cumulative impact of Federal Reserve rate cuts in the latter part of 2019 that favorably impacted deposit rates combined with the delayed repricing timing of the Company's variable rate loans.

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.

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.

	2019			2018			2017		
	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	$ 217,331	$ 4,799	2.21%	$ 373,104	$ 6,600	1.77%	$ 232,398	$ 2,407	1.04%
Investment securities	533,364	15,345	2.88	334,175	8,733	2.61	76,250	1,432	1.88
Loans held for sale	864,470	58,018	6.71	712,566	46,411	6.51	582,245	34,567	5.94
Loans and leases held for investment(1)	2,219,541	149,818	6.75	1,561,146	100,899	6.46	1,097,510	65,066	5.93
Total interest earning assets	3,834,706	227,980	5.95	2,980,991	162,643	5.46	1,988,403	103,472	5.20
Less: Allowance for loan and lease losses	(37,172)			(27,071)			(19,230)		
Non-interest earning assets	495,054			427,221			239,797		
Total assets	$4,292,588			$3,381,141			$2,208,970		
Interest bearing liabilities:									
Interest bearing checking	$ 42	$ 0	1.07%	$ 32,792	$ 342	1.04%	$ 39,213	$ 256	0.65%
Savings	1,013,177	20,598	2.03	911,757	15,357	1.68	193,083	2,685	1.39
Money market accounts	86,175	561	0.65	131,495	1,452	1.10	413,648	4,060	0.98
Certificates of deposit	2,585,367	66,738	2.58	1,761,948	37,318	2.12	1,161,651	17,222	1.48
Total deposits	3,684,761	87,897	2.39	2,837,992	54,469	1.92	1,807,595	24,223	1.34
Other borrowings	1,195	1	0.08	4,869	131	2.69	34,968	1,215	3.47
Total interest bearing liabilities	3,685,956	87,898	2.38	2,842,861	54,600	1.92	1,842,563	25,438	1.38
Non-interest bearing deposits	51,699			50,580			40,831		
Non-interest bearing liabilities	33,481			20,132			28,248		
Shareholders' equity	521,452			467,568			297,328		
Total liabilities and shareholders' equity	$4,292,588			$3,381,141			$2,208,970		
Net interest income and interest rate spread		$140,082	3.57%		$108,043	3.54%		$ 78,034	3.82%
Net interest margin			3.65%			3.62%			3.92%
Ratio of average interest-earning assets to average interest-bearing liabilities			104.04%			104.86%			107.92%

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

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.

	2019 vs. 2018 Increase (Decrease) Due to			2018 vs. 2017 Increase (Decrease) Due to		
	Rate	Volume	Total	Rate	Volume	Total
Interest income:						
Interest earning balances in other banks	$ 1,297	$ (3,098)	$ (1,801)	$ 2,220	$ 1,973	$ 4,193
Investment securities	1,144	5,468	6,612	1,509	5,792	7,301
Loans held for sale	1,563	10,044	11,607	3,731	8,113	11,844
Loans and leases held for investment	5,422	43,497	48,919	7,107	28,726	35,833
Total interest income	9,426	55,911	65,337	14,567	44,604	59,171
Interest expense:						
Interest bearing checking	5	(347)	(342)	140	(54)	86
Savings	3,356	1,885	5,241	1,623	11,049	12,672
Money market accounts	(493)	(398)	(891)	334	(2,942)	(2,608)
Certificates of deposit	10,072	19,348	29,420	9,289	10,807	20,096
Other borrowings	(79)	(51)	(130)	(156)	(928)	(1,084)
Total interest expense	12,861	20,437	33,298	11,230	17,932	29,162
Net interest income	$ (3,435)	$ 35,474	$ 32,039	$ 3,337	$ 26,672	$ 30,009

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, 2019 vs. 2018

For 2019, the provision for loan and lease losses was $19.6 million, an increase of $6.5 million, or 49.9%, compared to 2018. The increase in the provision for loan and lease losses compared to the prior year was primarily the result of a materially growing loan and lease portfolio through robust loan and lease originations and higher balance sheet retention rates combined with an increase in criticized and classified loans and leases.

Loans and leases held for investment as of December 31, 2019 increased by $803.9 million, or 43.6%, compared to December 31, 2018. This growth was fueled by strong loan and lease origination volume of $2.00 billion for the year ended December 31, 2019.

Net charge-offs were $3.8 million, or 0.17% of average loans and leases held for investment, for 2019, compared to net charge-offs of $4.8 million, or 0.31% of average loans and leases held for investment, for 2018. 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, 2019, nonperforming loans and leases not guaranteed by the SBA or USDA totaled $17.9 million, which was 0.68% of the held-for-investment loan and lease portfolio compared to $14.5 million, or 0.79%, of loans and leases held for investment at December 31, 2018.

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.

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,			2018/2019 Increase (Decrease)		2017/2018 Increase (Decrease)	
	2019	2018	2017	Amount	Percent	Amount	Percent
Noninterest income							
Loan servicing revenue	$ 28,034	$ 29,121	$ 24,588	$ (1,087)	(3.73)%	$ 4,533	18.44%
Loan servicing revaluation	(4,812)	(18,765)	(13,171)	13,953	74.36	(5,594)	(42.47)
Net gains on sales of loans	29,002	75,170	78,590	(46,168)	(61.42)	(3,420)	(4.35)
Equity method investments income (loss)	(7,889)	(386)	(513)	(7,503)	1,943.78	127	(24.76)
Equity security investments gains (losses), net	3,532	213	89	3,319	1,558.22	124	139.33
Gain on sale of investment securities available-for-sale	620	—	—	620	100.00	—	—
Lease income	9,655	7,966	1,856	1,689	21.20	6,110	329.20
Gain on contribution to equity method investment	—	—	68,000	—	—	(68,000)	(100.00)
Construction supervision fee income	1,765	2,277	1,776	(512)	(22.49)	501	28.21
Title insurance income	—	2,775	7,565	(2,775)	(100.00)	(4,790)	(63.32)
Other noninterest income	7,973	5,394	4,141	2,579	47.81	1,253	30.26
Total noninterest income	**$ 67,880**	**$103,765**	**$172,921**	**$(35,885)**	**(34.58)%**	**$(69,156)**	**(39.99)%**

Years ended December 31, 2019 vs. 2018

For 2019, noninterest income decreased by $35.9 million, or 34.6%, compared to 2018. The decrease from the prior year is primarily the result of the aforementioned strategic decision made in the latter part of 2018 to sell fewer loans, resulting in net gains on sales of loans declining to $29.0 million for 2019, compared to $75.2 million for 2018, a reduction of $46.2 million, or 61.4%. The flow-through loss from investments accounted for under the equity method increased $7.5 million for 2019, compared to 2018. Also impacting the overall decrease in noninterest income was a decline in title insurance income of $2.8 million during 2019, compared to 2018, due to the sale of the title insurance business in third quarter of 2018. Partially offsetting the overall decrease in noninterest income was a $14.0 million, or 74.4%, decrease in the negative loan servicing revaluation principally due to improving market conditions, such as increased premiums, combined with an increase in net gains on equity security investments of $3.3 million and an increase in solar panel lease income of $1.7 million.

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,	
	2019	2018	2019	2018	2019	2018	2019	2018
Amount of loans and leases originated	$ 523,688	$ 498,987	$ 562,259	$ 377,337	$ 525,088	$ 491,797	$ 390,851	$ 397,559
Guaranteed portions of loans sold	105,002	104,646	100,498	298,073	71,934	295,216	62,940	247,243
Outstanding balance of guaranteed loans sold (1)	2,746,480	3,045,460	2,802,073	3,102,820	2,870,108	2,951,379	2,952,774	2,812,108

	Years ended December 31,				
	2019	2018	2017	2016	2015
Amount of loans and leases originated	$2,001,886	$1,765,680	$1,934,238	$1,537,010	$1,158,640
Guaranteed portions of loans sold	340,374	945,178	787,926	761,933	640,886
Outstanding balance of guaranteed loans sold (1)	2,746,480	3,045,460	2,680,641	2,278,618	1,779,989

(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 those sold portions are retained by the Bank. In exchange for continuing to service sold loans, 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, 2019, loan servicing revenue decreased $1.1 million, or 3.7%, to $28.0 million as compared to the year ended December 31, 2018, as a result of the declining balance of the serviced portfolio. At December 31, 2019, the outstanding balance of guaranteed loans sold in the secondary market was $2.75 billion compared to $3.05 billion at December 31, 2018.

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, 2019 and 2018, there was a negative loan servicing revaluation of $4.8 million and $18.8 million, respectively. The lower negative service revaluation amount for 2019 was primarily a result of improving market conditions.

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, 2019 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	($4,542)
+200 basis point	(3,178)
+100 basis point	(1,672)
- 100 basis point	1,868

Net Gains on Sale of Loans: For the year ended December 31, 2019, net gains on sales of loans of $29.0 million, decreased $46.2 million, or 61.4%, compared to 2018. This decrease was primarily due to the lower volume of guaranteed loans sold in 2019, decreasing $604.8 million, or 64.0%, from $945.2 million in 2018 to $340.4 million in 2019. The average net gain on sale for 2019 was higher at $84.8 thousand of revenue for each $1 million in loans sold, compared to $80.9 thousand of revenue for each $1 million sold for 2018. The year over year increase in average gains was influenced by the mix of loans sold by the Company and continued strength of market conditions for the purchase of guaranteed loans.

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 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.

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 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.

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,			2018/2019 Increase (Decrease)		2017/2018 Increase (Decrease)	
	2019	2018	2017	Amount	Percent	Amount	Percent
Noninterest expense							
Salaries and employee benefits	$ 90,634	$ 77,411	$ 74,669	$ 13,223	17.08%	$ 2,742	3.67%
Non-staff expenses:							
Travel expense	6,921	9,156	8,124	(2,235)	(24.41)	1,032	12.70
Professional services expense	6,859	4,878	4,937	1,981	40.61	(59)	(1.20)
Advertising and marketing expense	5,936	6,015	6,363	(79)	(1.31)	(348)	(5.47)
Occupancy expense	8,116	7,065	6,195	1,051	14.88	870	14.04
Data processing expense	9,265	12,010	8,449	(2,745)	(22.86)	3,561	42.15
Equipment expense	16,327	13,724	7,479	2,603	18.97	6,245	83.50
Other loan origination and maintenance expense	9,272	5,967	4,970	3,305	55.39	997	20.06
Renewable energy tax credit investment impairment	602	—	690	602	100.00	(690)	(100.00)
FDIC insurance	3,447	3,234	3,206	213	6.59	28	0.87
Title insurance closing services expense	—	912	2,418	(912)	(100.00)	(1,506)	(62.28)
Impairment expense on goodwill and other intangibles	—	2,680	3,648	(2,680)	(100.00)	(968)	(26.54)
Other expense	7,545	9,652	12,017	(2,107)	(21.83)	(2,365)	(19.68)
Total non-staff expenses	74,290	75,293	68,496	(1,003)	(1.33)	6,797	9.92
Total noninterest expense	$164,924	$152,704	$143,165	$ 12,220	8.00%	$ 9,539	6.66%

Years ended December 31, 2019 vs. 2018

Total noninterest expense for 2019 increased $12.2 million, or 8.0%, compared to 2018. The increase in noninterest expense was predominately driven by increased personnel cost, equipment, and other loan related expenses.

Changes in various components of noninterest expense are discussed below.

Salaries and employee benefits: Total personnel expense for 2019 increased by $13.2 million, or 17.1%, compared to 2018. This increase is largely due to a reversal of $4.5 million in accrued incentive compensation in the latter part of 2018 due to not meeting internal performance metrics for that year combined with ongoing investment in workforce to support growth and a variety of initiatives. While personnel expense is carefully managed, the Company continues to invest in human capital to support a variety of initiatives by the Company, including growing loan production and financial services technology. Total full-time equivalent employees increased from 498 at December 31, 2018 to 612 at December 31, 2019. Salaries and employee benefits expense included $11.7 million and $9.2 million of stock-based compensation expense in 2019 and 2018, respectively. Expenses related to the employee stock purchase program, stock grants, stock option compensation and restricted stock expense are all considered stock-based compensation.

Travel expense: Travel expense decreased $2.2 million, or 24.4%, compared to 2018. This decrease was principally due to a reduction in repairs and maintenance costs associated with an older aircraft that was sold during the first quarter of 2019, higher deferred travel costs as more loans were retained, and general improvements in operational efficiency.

Professional services expense: For 2019, total professional services expense increased $2.0 million, or 40.6%, compared to 2018. This increase was driven by legal, accounting, and consulting fees incurred to support various strategic initiatives, such as the Company's investments in Apiture and Canapi Advisors, LLC.

Data processing expense: Total data processing expense decreased $2.7 million, or 22.9%, compared to 2018. The decrease is primarily the result of the expiration of software development services provided by Apiture directly to the Company at the end of 2018 combined with the capitalization of certain software development costs during 2019.

Equipment expense: Equipment expense increased $2.6 million, or 19.0%, compared to 2018. Primary factors contributing to this increase were the depreciation of solar panels arising from operating lease activities and a new aircraft placed in service in the third quarter of 2019.

Other loan origination and maintenance expense: Other loan origination and maintenance expense increased $3.3 million, or 55.4%, compared to 2018. This increase was due principally to expenses associated with the repurchase of certain guaranteed loans in the portfolio during the third quarter of 2019 along with increases in the ongoing guarantee fees arising from holding a higher volume of loans on balance sheet.

Title insurance closing services expense: Expenses associated with title insurance closing services decreased $912 thousand, or 100.0%, driven by the exit from the title insurance business during the third quarter of 2018.

Impairment expense on goodwill and other intangibles, net: During the third quarter of 2018, the Company incurred a one-time impairment expense of $2.7 million on goodwill and other intangibles associated with the sale of Reltco, Inc.

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 headcount 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.

Income Tax Expense

Years ended December 31, 2019 vs. 2018

For 2019 and 2018, there was an income tax expense of $5.4 million and benefit of $5.4 million, respectively, and the Company's effective tax rates were 23.1% and (11.7)%, respectively. The negative effective rate for 2018 was largely a product of significant investments in renewable energy assets which generate investment tax credits. For 2019, investment tax credits were less of a driver for the Company's effective tax rate.

The Company invested $5.9 million and $70.2 million in renewable energy assets that generated $1.7 million and $20.3 million in investment tax credits in 2019 and 2018, respectively.

See Note 11. Income Taxes for more information.

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.

Discussion and Analysis of Financial Condition

Years ended December 31, 2019 vs. 2018

Total assets at December 31, 2019 were $4.81 billion, an increase of $1.14 billion, or 31.2%, compared to total assets of $3.67 billion at December 31, 2018. This increase was principally driven by the following:

- Increased investment securities available-for-sale of $159.6 million which was driven by the Company's strategic plan to enhance liquidity and improve asset-liability repricing mix; and

- Growth in loan and leases held for sale and held for investment of $1.08 billion resulting from strong originations and higher levels of balances being retained to support the Company's strategic plan to hold more loans.

Cash and cash equivalents were $223.5 million at December 31, 2019, a decrease of $93.3 million, or 29.4%, compared to $316.8 million at December 31, 2018. This decrease was primarily the result of increased levels of loans held on books combined with the Company's maximization of returns on liquid assets by redeployment of funds into higher-yielding available-for-sale securities.

Total investment securities increased $159.6 million during 2019, from $380.5 million at December 31, 2018 to $540.0 million at December 31, 2019, an increase of 41.9%. The Company began enhancing its investment securities position early in 2019 as part of its strategy to improve the returns of an enhanced liquidity profile and improve asset-liability repricing mix. At December 31, 2019, the investment portfolio was comprised of US treasury and government agency securities, mortgage-backed securities and municipal bonds.

Loans held for sale increased $279.1 million, or 40.6%, during 2019, from $687.4 million at December 31, 2018 to $966.4 million at December 31, 2019. This increase reflected the impact of a significantly lower volume of loan sales combined with strong origination activity during 2019.

Loans and leases held for investment increased $803.9 million, or 43.6%, during 2019, from $1.84 billion at December 31, 2018 to $2.65 billion at December 31, 2019. The increase was primarily the result of $2.00 billion in loan and lease origination activities during 2019 combined with the late 2018 strategic shift to retain higher levels of loans on the balance sheet.

Premises and equipment increased $16.6 million, or 6.3%, during 2019, from $262.5 million at December 31, 2018 to $279.1 million at December 31, 2019. This increase was primarily driven by construction of new facilities and infrastructure to accommodate Company growth.

Foreclosed assets increased $4.5 million, or 413.0%, during 2019 from $1.1 million at December 31, 2018 to $5.6 million at December 31, 2019. The increase in foreclosed assets arose primarily from four relationships. The underlying loans were subject to an SBA guarantee and the total current estimated exposure to the Company is considered negligible for these more recent foreclosures.

Servicing assets decreased $12.3 million, or 25.8%, during 2019 from $47.6 million at December 31, 2018 to $35.4 million at December 31, 2019 due to the reduced level of loan sales during the year combined with amortization of the outstanding balance of guaranteed loans sold. At December 31, 2019, the outstanding balance of government guaranteed loans sold in the secondary market was $2.75 billion compared to $3.05 billion at December 31, 2018. See the preceding Noninterest Income section under the subheading “Loan Servicing Revaluation” for more information.

Operating leases right-of-use assets and operating lease liabilities were additions to the balance sheet pursuant to the adoption of the new lease standard (ASU No. 2016-02) effective January 1, 2019. These balance sheet accounts reflect the Company’s rights and obligations created by almost all leases in which it is a lessee with remaining terms of more than 12 months. See Note 1. Organization and Summary of Significant Accounting Policies and Note 6. Leases for more information on the adoption of this new standard.

Total deposits were $4.23 billion at December 31, 2019, an increase of $1.08 billion, or 34.3%, from $3.15 billion at December 31, 2018. The increase in deposits was driven by the combined success of deposit gathering campaigns to support the growth in loan and lease originations and balance sheet management initiatives.

Other liabilities increased $25.0 million, or 96.6%, during 2019, from $25.8 million at December 31, 2018 to $50.8 million at December 31, 2019. The increase in other liabilities was largely driven by a $16.3 million increase in unfunded investment commitments to a series of new funds advised by Canapi Advisors, increased accruals for incentive compensation of $6.2 million and an increased deferred tax liability of $5.7 million.

Shareholders’ equity at December 31, 2019 was $532.4 million as compared to $493.6 million at December 31, 2018. The book value per share was $13.20 at December 31, 2019 and average equity to average assets was 12.1% for 2019, compared to a book value per share of $12.29 at December 31, 2018 and average equity to average assets of 13.8% for the year ended December 31, 2018. The increase in shareholders’ equity is principally the result of net income to common shareholders of $18.0 million, other comprehensive income of $13.4 million and stock-based compensation expense of $11.7 million, partially offset by $4.8 million in dividends.

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.

Loans

As of December 31, 2019 and 2018, the cumulative total outstanding principal balance of guaranteed loans sold since May 2007 totaled $2.75 billion and $3.05 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, 2019 and 2018, combined loans and leases held for investment and held for sale totaled $3.61 billion and $2.53 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, 2019 was 11.9 months from origination date. Less than 25% 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 33.0% 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 and excluded from the held for sale loan portfolio.

As of December 31, 2019 and 2018, loans and leases held for investment totaled $2.64 billion and $1.84 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 of 2018 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 related to net deferred costs and discounts on SBA 7(a) unguaranteed loans and leases is $7.5 million, $(7.1) million, $(2.9) million, $(926) thousand, and $23 thousand as of December 31, 2019, 2018, 2017, 2016 and 2015, respectively.

	2019		2018		2017		2016		2015	
	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	$ 9,344	0.35%	$ 6,400	0.35%	$ 3,274	0.24%	$ 1,714	0.19%	$ 30	0.01%
Funeral Home & Cemetery	26,388	1.00	17,378	0.94	13,495	1.00	9,684	1.06	4,832	1.73
Healthcare	45,581	1.73	51,082	2.76	43,301	3.21	37,270	4.10	15,240	5.44
Independent Pharmacies	106,096	4.02	108,783	5.88	99,920	7.42	83,677	9.21	41,588	14.86
Registered Investment Advisors	99,191	3.76	94,338	5.10	93,770	6.96	68,335	7.52	18,358	6.56
Veterinary Industry	51,251	1.94	45,604	2.46	46,387	3.45	38,930	4.29	21,579	7.71
Other Industries	557,146	21.10	295,163	15.95	184,903	13.73	94,836	10.44	3,230	1.15
Total	**894,997**	**33.90**	**618,748**	**33.44**	**485,050**	**36.01**	**334,446**	**36.81**	**104,857**	**37.46**
Construction & Development										
Agriculture	44,571	1.69	43,454	2.35	34,188	2.54	32,372	3.56	11,351	4.05
Funeral Home & Cemetery	9,033	0.34	9,874	0.53	6,119	0.45	3,956	0.44	769	0.27
Healthcare	94,742	3.59	81,619	4.41	49,770	3.70	30,467	3.35	7,231	2.58
Independent Pharmacies	443	0.02	2,149	0.12	1,496	0.11	2,013	0.22	101	0.04
Registered Investment Advisors	2,404	0.09	1,232	0.07	376	0.03	294	0.03	378	0.13
Veterinary Industry	22,132	0.84	14,094	0.76	13,184	0.98	11,514	1.27	3,834	1.37
Other Industries	173,993	6.59	96,482	5.21	58,120	4.32	31,715	3.49	658	0.24
Total	**347,318**	**13.16**	**248,904**	**13.45**	**163,253**	**12.13**	**112,331**	**12.36**	**24,322**	**8.68**
Commercial Real Estate										
Agriculture	50,365	1.91	53,085	2.87	46,717	3.47	5,591	0.62	1,863	0.67
Funeral Home & Cemetery	113,517	4.30	71,344	3.85	67,381	5.00	52,510	5.78	20,327	7.26
Healthcare	247,625	9.38	188,531	10.19	126,631	9.40	114,281	12.58	37,684	13.46
Independent Pharmacies	26,379	1.00	20,597	1.11	19,028	1.41	15,151	1.67	7,298	2.61
Registered Investment Advisors	7,431	0.28	7,905	0.43	11,789	0.88	11,462	1.26	2,808	1.00
Veterinary Industry	146,319	5.54	136,721	7.39	113,932	8.46	102,906	11.33	59,999	21.43
Other Industries	461,157	17.47	260,847	14.10	134,172	9.96	46,245	5.09	4,752	1.70
Total	**1,052,793**	**39.88**	**739,030**	**39.94**	**519,650**	**38.58**	**348,146**	**38.33**	**134,731**	**48.13**
Commercial Land										
Agriculture	344,732	13.06	243,798	13.17	178,897	13.28	113,569	12.50	16,036	5.73
Total	**344,732**	**13.06**	**243,798**	**13.17**	**178,897**	**13.28**	**113,569**	**12.50**	**16,036**	**5.73**
Total Loans and Leases	**$2,639,840**	**100.00%**	**$1,850,480**	**100.00%**	**$1,346,850**	**100.00%**	**$908,492**	**100.00%**	**$279,946**	**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 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.

C&I loans and leases increased $276.2 million, or 44.6%, from December 31, 2018 to December 31, 2019. Increases occurred in all verticals except the Healthcare and Independent Pharmacies, with most of the growth occurring in Funeral Home & Cemetery, Veterinary, Registered Investment Advisors, and Other Industries verticals which increased $9.0 million, $5.6 million, $4.9 million and $262.0 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 Sponsor Finance, M & A Lending, ABL, Wine and Craft Beverages, and Fitness Centers with respective increases of $53.2 million, $23.8 million, $23.4 million, $21.9 million and $15.4 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 (C&D) 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.

C&D loans increased $98.4 million, or 39.5%, from December 31, 2018 to December 31, 2019. The increase was also across most verticals, with the majority of growth arising from increased industry emphasis on facility expansion principally in the Healthcare and Other Industries verticals which increased $13.1 million and $77.5 million, respectively. The majority of the increase in the Other Industries category was attributable to Early Education Services with an increase of $31.3 million. Terms for C&D loans are generally 20 to 25 years.

Commercial Real Estate

Commercial real estate (CRE) 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 commercial real estate loans is commonly derived from the successful ongoing operations of the business occupying the property. These typically include small businesses and professional practices.

CRE loans increased $313.8 million, or 42.5%, from December 31, 2018 to December 31, 2019. All CRE verticals experienced growth in 2019 except Agriculture and Registered Investment Advisor, with the largest increases occurring in Healthcare, Funeral Home & Cemetery and Other Industries with year to year growth of $59.1 million, $42.2 million and $200.3 million respectively. The majority of the increase in the Other Industries category was attributable to Self Storage, Early Education Services, Hotels, M & A Lending, and Senior Care with respective increases of $60.2 million, $47.3 million, $26.8 million, $24.0 million and $21.5 million. Growth in CRE lending was largely attributed to ongoing facility expansion and acquisition activity during 2019.

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 loans 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.

Commercial land loans increased $100.9 million, or 41.4%, from December 31, 2018 to December 31, 2019. 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.

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.

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 related to net deferred costs and discount on SBA 7(a) and USDA unguaranteed loans is $6.4 million, $3.8 million, $6.6 million, $4.5 million, and $3.2 million as of December 31, 2019, 2018, 2017, 2016 and 2015, respectively.

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

	At December 31, 2019			At December 31, 2018			At December 31, 2017			At December 31, 2016			At December 31, 2015		
	Concentration Risk			Concentration Risk			Concentration Risk			Concentration Risk			Concentration Risk		
	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total
Commercial & Industrial															
Agriculture	$ —	$ 3	$ 3	$ —	$ 1,235	$ 1,235	$ —	$ 2,276	$ 2,276	$ —	$ 1,248	$ 1,248	$ 171	$ 51	$ 222
Funeral Home & Cemetery	—	2,159	2,159	—	1,571	1,571	—	4,619	4,619	—	841	841	3,483	556	4,039
Healthcare	—	20,805	20,805	—	11,380	11,380	—	22,540	22,540	—	5,061	5,061	13,728	2,046	15,774
Independent Pharmacies	—	20,231	20,231	—	5,887	5,887	—	2,357	2,357	—	2,930	2,930	29,903	2,833	32,736
Registered Investment Advisors	—	31,226	31,226	—	3,102	3,102	—	12,201	12,201	—	10,360	10,360	17,537	5,087	22,624
Veterinary Industry	—	11,616	11,616	—	12,166	12,166	—	17,820	17,820	—	5,639	5,639	12,894	2,838	15,732
Other Industries	25,441	230,644	256,085	35,216	101,144	136,360	—	67,719	67,719	—	32,121	32,121	8,774	6,624	15,398
Total	**25,441**	**316,684**	**342,125**	**35,216**	**136,485**	**171,701**	**—**	**129,532**	**129,532**	**—**	**58,200**	**58,200**	**86,490**	**20,035**	**106,525**
Construction & Development															
Agriculture	—	26,795	26,795	—	55,415	55,415	—	81,902	81,902	—	96,028	96,028	17,005	83,949	100,954
Funeral Home & Cemetery	—	16,215	16,215	—	19,166	19,166	—	12,278	12,278	—	10,299	10,299	1,698	5,778	7,476
Healthcare	—	112,860	112,860	—	125,888	125,888	—	130,154	130,154	—	73,596	73,596	11,469	54,374	65,843
Independent Pharmacies	—	1,330	1,330	—	6,448	6,448	—	4,489	4,489	—	6,041	6,041	152	760	912
Registered Investment Advisors	—	555	555	—	1,437	1,437	—	1,128	1,128	—	881	881	567	2,835	3,402
Veterinary Industry	—	48,865	48,865	—	35,201	35,201	—	31,038	31,038	—	21,377	21,377	3,900	19,360	23,260
Other Industries	—	168,164	168,164	—	180,723	180,723	—	120,990	120,990	—	38,698	38,698	1,590	4,934	6,524
Total	**—**	**374,784**	**374,784**	**—**	**424,278**	**424,278**	**—**	**381,979**	**381,979**	**—**	**246,920**	**246,920**	**36,381**	**171,990**	**208,371**
Commercial Real Estate															
Agriculture	—	3,750	3,750	—	7,671	7,671	—	47,001	47,001	—	—	—	2,794	6,455	9,249
Funeral Home & Cemetery	—	23,105	23,105	—	3,989	3,989	—	10,487	10,487	—	3,336	3,336	17,808	1,971	19,779
Healthcare	—	51,873	51,873	—	14,788	14,788	—	25,255	25,255	—	12,224	12,224	34,749	10,974	45,723
Independent Pharmacies	—	2,750	2,750	—	1,071	1,071	—	975	975	—	1,996	1,996	5,661	2,325	7,986
Registered Investment Advisors	—	1,034	1,034	—	885	885	—	222	222	—	1,186	1,186	2,205	—	2,205
Veterinary Industry	—	29,577	29,577	—	3,732	3,732	—	15,145	15,145	—	8,039	8,039	32,025	1,690	33,715
Other Industries	—	119,449	119,449	—	32,310	32,310	—	34,021	34,021	—	8,333	8,333	9,880	1,104	10,984
Total	**—**	**231,538**	**231,538**	**—**	**64,446**	**64,446**	**—**	**133,106**	**133,106**	**—**	**35,114**	**35,114**	**105,122**	**24,519**	**129,641**
Commercial Land															
Agriculture	—	11,556	11,556	—	23,162	23,162	—	29,258	29,258	—	49,519	49,519	24,382	8,529	32,911
Total	**—**	**11,556**	**11,556**	**—**	**23,162**	**23,162**	**—**	**29,258**	**29,258**	**—**	**49,519**	**49,519**	**24,382**	**8,529**	**32,911**
Total	**$ 25,441**	**$ 934,562**	**$960,003**	**$ 35,216**	**$ 648,371**	**$683,587**	**$ —**	**$ 673,875**	**$673,875**	**$ —**	**$ 389,753**	**$389,753**	**$ 252,375**	**$ 225,073**	**$477,448**

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, 2019 and 2018 there have been charge offs of $646 thousand and $509 thousand, respectively. For loans transferred from held for investment to held for sale during the twelve months ended December 31, 2019 and 2018 there have been no charge offs. As of December 31, 2019 and 2018, 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:

	At December 31, 2019			At December 31, 2018			At December 31, 2017			At December 31, 2016			At December 31, 2015		
	Concentration Risk			Concentration Risk			Concentration Risk			Concentration Risk			Concentration Risk		
	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total	Unguaranteed	Guaranteed	Total
Commercial & Industrial															
Agriculture	$ 5,152	$ 4,192	$ 9,344	$ 3,817	$ 2,583	$ 6,400	$ 2,942	$ 332	$ 3,274	$ 1,556	$ 158	$ 1,714	$ 30	$ —	$ 30
Funeral Home & Cemetery	18,541	7,847	26,388	16,644	734	17,378	13,295	200	13,495	9,403	281	9,684	4,832	—	4,832
Healthcare	34,822	10,759	45,581	39,359	11,723	51,082	39,123	4,178	43,301	31,791	5,479	37,270	11,900	3,340	15,240
Independent Pharmacies	93,563	12,533	106,096	96,088	12,695	108,783	91,982	7,938	99,920	78,953	4,724	83,677	40,025	1,563	41,588
Registered Investment Advisors	84,289	14,902	99,191	84,599	9,739	94,338	93,321	449	93,770	67,914	421	68,335	18,358	—	18,358
Veterinary Industry	37,793	13,458	51,251	40,566	5,038	45,604	43,371	3,016	46,387	35,981	2,949	38,930	19,247	2,332	21,579
Other Industries	475,051	82,095	557,146	278,565	16,598	295,163	184,393	510	184,903	94,436	400	94,836	3,124	106	3,230
Total	**749,211**	**145,786**	**894,997**	**559,638**	**59,110**	**618,748**	**468,427**	**16,623**	**485,050**	**320,034**	**14,412**	**334,446**	**97,516**	**7,341**	**104,857**
Construction & Development															
Agriculture	42,953	1,618	44,571	36,205	7,249	43,454	30,224	3,964	34,188	32,139	233	32,372	11,233	118	11,351
Funeral Home & Cemetery	8,667	366	9,033	9,874	—	9,874	6,119	—	6,119	3,956	—	3,956	769	—	769
Healthcare	54,063	40,679	94,742	59,523	22,096	81,619	48,302	1,468	49,770	30,467	—	30,467	7,231	—	7,231
Independent Pharmacies	443	—	443	2,149	—	2,149	1,496	—	1,496	2,013	—	2,013	101	—	101
Registered Investment Advisors	740	1,664	2,404	1,232	—	1,232	376	—	376	294	—	294	378	—	378
Veterinary Industry	20,138	1,994	22,132	14,094	—	14,094	13,184	—	13,184	10,173	1,341	11,514	3,296	538	3,834
Other Industries	131,672	42,321	173,993	93,615	2,867	96,482	58,120	—	58,120	31,715	—	31,715	658	—	658
Total	**258,676**	**88,642**	**347,318**	**216,692**	**32,212**	**248,904**	**157,821**	**5,432**	**163,253**	**110,757**	**1,574**	**112,331**	**23,666**	**656**	**24,322**
Commercial Real Estate															
Agriculture	27,223	23,142	50,365	32,290	20,795	53,085	30,871	15,846	46,717	5,591	—	5,591	1,863	—	1,863
Funeral Home & Cemetery	95,187	18,330	113,517	67,489	3,855	71,344	65,836	1,545	67,381	50,918	1,592	52,510	19,037	1,290	20,327
Healthcare	154,292	93,333	247,625	147,421	41,110	188,531	121,635	4,996	126,631	106,924	7,357	114,281	36,885	799	37,684
Independent Pharmacies	15,500	10,879	26,379	16,519	4,078	20,597	17,466	1,562	19,028	15,151	—	15,151	7,298	—	7,298
Registered Investment Advisors	5,987	1,444	7,431	7,905	—	7,905	11,789	—	11,789	11,462	—	11,462	2,808	—	2,808
Veterinary Industry	117,633	28,686	146,319	112,760	23,961	136,721	103,303	10,629	113,932	94,081	8,825	102,906	52,911	7,088	59,999
Other Industries	344,436	116,721	461,157	233,045	27,802	260,847	133,263	909	134,172	45,997	248	46,245	4,752	—	4,752
Total	**760,258**	**292,535**	**1,052,793**	**617,429**	**121,601**	**739,030**	**484,163**	**35,487**	**519,650**	**330,124**	**18,022**	**348,146**	**125,554**	**9,177**	**134,731**
Commercial Land															
Agriculture	171,057	173,675	344,732	151,329	92,469	243,798	136,752	42,145	178,897	109,918	3,651	113,569	16,036	—	16,036
Total	**171,057**	**173,675**	**344,732**	**151,329**	**92,469**	**243,798**	**136,752**	**42,145**	**178,897**	**109,918**	**3,651**	**113,569**	**16,036**	**—**	**16,036**
Total	**$ 1,939,202**	**$ 700,638**	**$2,639,840**	**$ 1,545,088**	**$ 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**

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, 2019, total guaranteed loans and leases held for investment classified as special mention or worse was $139.1 million with $58.4 million on a non-accrual basis. Of total guaranteed loans and leases held for investment at December 31, 2018, $69.3 million was classified as special mention or worse with $43.2 million on a non-accrual basis.

Agriculture loans and leases represent the largest vertical at $449.0 million, or 17.0%, of the total held for investment balance at December 31, 2019. From May 2007 through December 31, 2019, the Bank originated $1.27 billion in loans and leases to small business professionals in the Agriculture vertical with $796.7 million in outstanding principal remaining in the servicing portfolio and $491.1 million remaining on the consolidated balance sheet. Loans and leases to healthcare professionals represent the second largest vertical at $387.9 million, or 14.7%, of the total held for investment balance. From inception in May 2007 through December 31, 2019, the Company originated $1.70 billion of loans and leases to small business professionals in the Healthcare vertical, with $940.6 million in outstanding principal remaining in the servicing portfolio and $573.5 million remaining on the consolidated balance sheet. Veterinary loans and leases represent the third largest vertical at $219.7 million, or 8.3%, of the total held for investment balance. The Veterinary vertical was the original industry specialization and formed the basis of the Company's existing vertical oriented model. From May 2007 through December 31, 2019, the Bank originated $1.68 billion loans and leases to small business professionals in the Veterinary vertical with $681.3 million in outstanding principal remaining in the servicing portfolio and $309.8 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, 2019, 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 2019 was $1.3 million, and the average original lease receivable was $237 thousand. At December 31, 2019, the average outstanding balance per loan was approximately $671 thousand, and the average outstanding balance per lease was $186 thousand. The outstanding principal balance of the full loan and lease portfolio, including those serviced for others, totaled $6.57 billion of which $2.65 billion was held for investment.

Loan and Lease Maturity

As of December 31, 2019, $5.53 billion, or 84.2%, of the total outstanding principal of 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, 2019, $3.95 billion, or 60.1%, of total outstanding principal of 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, 2019, 85.3%, or $3.1 billion, of the combined held for sale and held for investment loan and lease portfolio was composed of variable rate loans. At December 31, 2019, $303.7 million, or 11.5%, of the held for investment balance matures in less than five years. Loans and leases maturing in greater than five years total $2.34 billion of the total $2.64 billion. The variable rate portion of the total held for investment loans and leases is 84.7%, which reflects the Company's strategy to minimize interest rate risk through the use of variable rate products.

	At December 31, 2019			
	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	$ 2,181	$ 68	$ 975	$ 3,224
Funeral Home & Cemetery	—	1,824	3,030	4,854
Healthcare	—	918	4,120	5,038
Independent Pharmacies	5	692	7,698	8,395
Registered Investment Advisors	—	1,024	16,531	17,555
Veterinary Industry	—	2,185	4,042	6,227
Other Industries	24,887	15,301	65,497	105,685
Total	**27,073**	**22,012**	**101,893**	**150,978**
Construction & Development				
Agriculture	15,631	9,935	8,809	34,375
Healthcare	—	—	3,632	3,632
Registered Investment Advisors	—	—	90	90
Veterinary Industry	—	1,278	564	1,842
Other Industries	—	—	1,637	1,637
Total	**15,631**	**11,213**	**14,732**	**41,576**
Commercial Real Estate				
Agriculture	—	—	8,408	8,408
Funeral Home & Cemetery	—	1,846	13,375	15,221
Healthcare	—	1,023	39,227	40,250
Independent Pharmacies	—	—	777	777
Registered Investment Advisors	—	—	1,043	1,043
Veterinary Industry	—	175	13,795	13,970
Other Industries	712	8,102	15,999	24,813
Total	**712**	**11,146**	**92,624**	**104,482**
Commercial Land				
Agriculture	4,397	23,912	77,973	106,282
Total	**4,397**	**23,912**	**77,973**	**106,282**
Total fixed rate loans and leases	**47,813**	**68,283**	**287,222**	**403,318**
Variable rate loans and leases:				
Commercial & Industrial				
Agriculture	101	257	5,762	6,120
Funeral Home & Cemetery	—	279	21,255	21,534
Healthcare	162	3,181	37,200	40,543
Independent Pharmacies	224	11,130	86,347	97,701
Registered Investment Advisors	656	5,291	75,689	81,636
Veterinary Industry	88	3,942	40,994	45,024
Other Industries	44,359	53,086	354,016	451,461
Total	**45,590**	**77,166**	**621,263**	**744,019**
Construction & Development				
Agriculture	—	—	10,196	10,196
Funeral Home & Cemetery	—	3,140	5,893	9,033
Healthcare	—	—	91,110	91,110
Independent Pharmacies	—	—	443	443
Registered Investment Advisors	—	—	2,314	2,314
Veterinary Industry	—	—	20,290	20,290
Other Industries	11,855	8,544	151,957	172,356
Total	**11,855**	**11,684**	**282,203**	**305,742**
Commercial Real Estate				
Agriculture	—	—	41,957	41,957
Funeral Home & Cemetery	6	2,062	96,228	98,296
Healthcare	354	167	206,854	207,375
Independent Pharmacies	—	761	24,841	25,602
Registered Investment Advisors	—	129	6,259	6,388
Veterinary Industry	363	6,148	125,838	132,349
Other Industries	6,684	24,020	405,640	436,344
Total	**7,407**	**33,287**	**907,617**	**948,311**
Commercial Land				
Agriculture	—	599	237,851	238,450
Total	**—**	**599**	**237,851**	**238,450**
Total variable rate loans and leases	**64,852**	**122,736**	**2,048,934**	**2,236,522**
Total	**$ 112,665**	**$ 191,019**	**$ 2,336,156**	**$ 2,639,840**

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.

	2019	2018	2017	2016	2015
Nonaccrual loans:					
Total nonperforming loans (all on nonaccrual)	$ 76,307	$ 57,690	$ 23,480	$ 23,781	$ 12,367
Total accruing loans past due 90 days or more	—	—	—	—	—
Foreclosed assets	5,612	1,094	1,281	1,648	2,666
Total troubled debt restructurings	43,801	27,495	10,223	9,856	11,021
Less nonaccrual troubled debt restructurings	(14,627)	(6,494)	(8,129)	(7,688)	(8,814)
Total performing troubled debt restructurings	29,174	21,001	2,094	2,168	2,207
Total nonperforming assets and troubled debt restructurings	**$ 111,093**	**$ 79,785**	**$ 26,855**	**$ 27,597**	**$ 17,240**
Total nonperforming loans to total loans and leases held for investment	2.88%	3.13%	1.75%	2.62%	4.42%
Total nonperforming loans to total assets	1.58%	1.57%	0.85%	1.36%	1.17%
Total nonperforming assets and troubled debt restructurings to total assets	2.31%	2.17%	0.97%	1.57%	1.64%

	2019	2018	2017	2016	2015
Nonaccrual loans guaranteed by U.S. government:					
Total nonperforming loans guaranteed by the U.S. government (all on nonaccrual)	$ 58,399	$ 43,202	$ 19,870	$ 18,997	$ 10,330
Total accruing loans past due 90 days or more guaranteed by the U.S. government	—	—	—	—	—
Foreclosed assets guaranteed by the U.S. government	4,492	946	1,191	1,402	2,293
Total troubled debt restructurings guaranteed by the U.S. government	31,022	19,780	7,178	6,723	7,710
Less nonaccrual troubled debt restructurings guaranteed by the U.S. government	(10,044)	(5,684)	(7,099)	(6,602)	(7,550)
Total performing troubled debt restructurings guaranteed by U.S. government	20,978	14,096	79	121	160
Total nonperforming assets and troubled debt restructurings guaranteed by the U.S. government	**$ 83,869**	**$ 58,244**	**$ 21,140**	**$ 20,520**	**$ 12,783**
Total nonperforming loans not guaranteed by the U.S. government to total held for investment loans and leases	0.68%	0.79%	0.27%	0.53%	0.73%
Total nonperforming loans not guaranteed by the U.S. government to total assets	0.37%	0.39%	0.13%	0.27%	0.19%
Total nonperforming assets and troubled debt restructurings not guaranteed by the U.S. government to total assets	0.57%	0.59%	0.21%	0.40%	0.42%

Total nonperforming assets and troubled debt restructurings at December 31, 2019 were $111.1 million, which represented a $31.3 million, or 39.2%, increase from December 31, 2018. Total nonperforming assets at December 31, 2019 were composed of $76.3 million in nonaccrual loans and $5.6 million of foreclosed assets. Of the $111.1 million of nonperforming assets, $83.9 million carried a government guarantee, leaving an unguaranteed exposure of $27.2 million in total nonperforming assets and TDRs at December 31, 2019. This represents an increase of $5.7 million, or 26.4%, from unguaranteed exposure of $21.6 million at December 31, 2018. The vast majority of this increase in nonperforming assets and TDRs arose from our mature verticals. See the below discussion related to the change in potential problem and impaired loans for management's overall observations regarding growth in this area.

As a percentage of the Bank's total capital, nonperforming loans represented 15.5% at December 31, 2019, compared to 14.8% of the Bank's total capital at December 31, 2018. Adjusting the ratio to include only the unguaranteed portion of nonperforming loans to reflect management's belief that the greater magnitude of risk resides in this portion, the ratios at December 31, 2019 and December 31, 2018 were 3.6% and 3.7%, respectively.

As of December 31, 2019 and 2018, potential problem (also referred to as criticized) and classified loans and leases totaled $270.3 million and $148.0 million, respectively. Risk Grades 5 through 8 represent the spectrum of criticized and classified loans and leases. At December 31, 2019, the portion of criticized loans and leases guaranteed by the SBA or USDA totaled $139.1 million resulting in unguaranteed exposure risk of $131.2 million, or 6.8% of total held for investment unguaranteed exposure. This compares to total criticized and impaired loans and leases of $148.0 million at December 31, 2018, of which $69.3 million was guaranteed by the SBA or USDA. As of December 31, 2019, loans and leases in the Other Industries, Healthcare, Agriculture, Independent Pharmacies and Veterinary Industry comprise the largest portion of the total potential problem and impaired loans and leases at 40.2%, 22.2%, 15.7%, 8.6% and 8.4%, respectively. Of the 40.2% of total potential problem and classified loans and leases in the Other Industries, 9.3% was related to Wine & Craft Beverages, 8.9% was related to Hotels and 5.8% was related to Self Storage. As of December 31, 2018, 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. Of the 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. The majority of the increase in potential problem and classified loans and leases was comprised of a relatively small number of borrowers largely concentrated in our more mature verticals. Furthermore, the Company believes that its underwriting and credit quality standards have improved as the business has matured. However, systemic issues that emerged during the latter part of 2019 related to higher than expected levels of competition in the Wine and Craft Beverage and Family Entertainment Center Verticals continue to contribute towards heightened levels of criticized loans. Some signs of stress have also been identified in a small number of loans originated in the first two years of the Government Contracting vertical. In 2018, the Company tightened underwriting standards for this vertical which resulted in refined product offerings. Additionally, the Company has subsequently invested in the build out of a more robust servicing team specialized in government contract analysis. The Company feels that the appropriate measures have been taken to yield positive outcomes and to mitigate future risk. The Company will continue to closely monitor these verticals.

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 special mention (also referred to as criticized), Risk Grade 5. For example, at December 31, 2019 and 2018, Risk Grade 5 loans and leases totaled $150.0 million and $65.5 million, respectively. The increase in Risk Grade 5 loans and leases from December 31, 2018 to 2019 was spread across eight industries; Hotels ($18.2 million or 21.5%), Wine and Craft Beverage ($14.0 million or 16.5%), Self Storage ($10.5 million or 12.4%), Healthcare ($9.7 million or 11.5%), Early Education Services ($7.3 million or 8.7%), Family Entertainment ($5.1 million or 6.1%), Insurance ($5.0 million or 5.9%) and Veterinary ($5.0 million or 5.9%). The increase in risk grade 5 loans in 2019 was primarily due to the continued maturity of these verticals combined with the above mentioned issues that have begun to emerge in certain verticals. At December 31, 2019, approximately 88.6% of loans classified as Risk Grade 5 are performing with no current payments past due more than 30 days. While the level of nonperforming assets fluctuates in response to changing economic and market conditions, in light of 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 portfolio.

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 $32.4 million at December 31, 2018 increased by $15.8 million, or 48.8%, to $48.2 million at December 31, 2019. The ALLL, as a percentage of loans and leases held for investment, amounted to 1.8% at both December 31, 2019 and 2018. The increase in the allowance for loan and lease losses was largely attributable to a rapidly growing loan and lease portfolio through robust loan and lease originations and higher balance sheet retention rates combined with an increase in criticized and classified loans and leases, 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 1.26% at December 31, 2019 as compared to 1.34% at December 31, 2018. 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 held for investment loans and leases have increased by $4.0 million since December 31, 2018. The primary driver of this increase was growth in total loans past due less than 90 days of $5.8 million. Partially offsetting this increase was a $1.8 million decline in total loans past due 90 or more. At December 31, 2019 and 2018, total held for investment unguaranteed loans and leases past due as a percentage of total held for investment unguaranteed loans and leases was 1.01% and 1.56%, respectively. Management continues to actively monitor and work to improve asset quality. Management believes the ALLL of $48.2 million at December 31, 2019 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 (or allowance for credit losses also known as ACL under CECL, which was adopted effective January 1, 2020) 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 Credit Quality 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.

	2019				2018				2017			
	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	% of Total Loans and Leases
Commercial & Industrial												
Agriculture	$ 146	$ 9,344	0.30%	0.35%	$ 33	$ 6,400	0.10%	0.35%	$ 56	$ 3,274	0.23%	0.24%
Funeral Home & Cemetery	166	26,388	0.34	1.00	57	17,378	0.18	0.94	47	13,495	0.20	1.00
Healthcare	1,955	45,581	4.05	1.73	1,913	51,082	5.90	2.76	2,030	43,301	8.39	3.21
Independent Pharmacies	2,258	106,096	4.68	4.02	2,599	108,783	8.01	5.88	1,694	99,920	7.00	7.42
Registered Investment Advisors	1,067	99,191	2.21	3.76	1,498	94,338	4.62	5.10	1,234	93,770	5.10	6.96
Veterinary Industry	355	51,251	0.74	1.94	404	45,604	1.25	2.46	632	46,387	2.61	3.45
Other Industries	19,466	557,146	40.35	21.10	8,058	295,163	24.84	15.95	5,058	184,903	20.91	13.73
Total	**25,413**	**894,997**	**52.67**	**33.90**	**14,562**	**618,748**	**44.90**	**33.44**	**10,751**	**485,050**	**44.44**	**36.01**
Construction & Development												
Agriculture	130	44,571	0.28	1.69	244	43,454	0.76	2.35	494	34,188	2.04	2.54
Funeral Home & Cemetery	26	9,033	0.05	0.34	20	9,874	0.06	0.53	15	6,119	0.06	0.45
Healthcare	286	94,742	0.59	3.59	251	81,619	0.77	4.41	359	49,770	1.48	3.70
Independent Pharmacies	1	443	0.00	0.02	8	2,149	0.02	0.12	5	1,496	0.02	0.11
Registered Investment Advisors	3	2,404	0.01	0.09	2	1,232	0.01	0.07	1	376	0.01	0.03
Veterinary Industry	32	22,132	0.07	0.84	63	14,094	0.19	0.76	46	13,184	0.19	0.98
Other Industries	2,253	173,993	4.67	6.59	1,454	96,482	4.49	5.21	1,110	58,120	4.59	4.32
Total	**2,731**	**347,318**	**5.67**	**13.16**	**2,042**	**248,904**	**6.30**	**13.45**	**2,030**	**163,253**	**8.39**	**12.13**
Commercial Real Estate												
Agriculture	200	50,365	0.41	1.91	250	53,085	0.77	2.87	484	46,717	2.00	3.47
Funeral Home & Cemetery	796	113,517	1.65	4.30	345	71,344	1.06	3.85	612	67,381	2.53	5.00
Healthcare	3,788	247,625	7.85	9.38	1,995	188,531	6.15	10.19	1,128	126,631	4.67	9.40
Independent Pharmacies	614	26,379	1.27	1.00	827	20,597	2.55	1.11	425	19,028	1.76	1.41
Registered Investment Advisors	12	7,431	0.03	0.28	24	7,905	0.07	0.43	50	11,789	0.21	0.88
Veterinary Industry	1,752	146,319	3.63	5.54	2,200	136,721	6.78	7.39	2,470	113,932	10.21	8.46
Other Industries	7,420	461,157	15.38	17.47	5,403	260,847	16.66	14.10	4,011	134,172	16.58	9.96
Total	**14,582**	**1,052,793**	**30.22**	**39.88**	**11,044**	**739,030**	**34.04**	**39.94**	**9,180**	**519,650**	**37.96**	**38.58**
Commercial Land												
Agriculture	5,521	344,732	11.44	13.06	4,786	243,798	14.76	13.17	2,229	178,897	9.21	13.28
Total	**5,521**	**344,732**	**11.44**	**13.06**	**4,786**	**243,798**	**14.76**	**13.17**	**2,229**	**178,897**	**9.21**	**13.28**
Total	**$ 48,247**	**$ 2,639,840**	**100.00%**	**100.00%**	**$ 32,434**	**$ 1,850,480**	**100.00%**	**100.00%**	**$ 24,190**	**$ 1,346,850**	**100.00%**	**100.00%**

	2016				2015			
	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	$ 33	$ 1,714	0.18%	0.19%	$ 5	$ 30	0.07%	0.01%
Funeral Home & Cemetery	40	9,684	0.22	1.06	31	4,832	0.42	1.72
Healthcare	1,922	37,270	10.56	4.10	684	15,240	9.22	5.44
Independent Pharmacies	873	83,677	4.79	9.21	724	41,588	9.76	14.86
Registered Investment Advisors	1,907	68,335	10.47	7.52	220	18,358	2.97	6.56
Veterinary Industry	834	38,930	4.58	4.29	555	21,579	7.48	7.71
Other Industries	2,804	94,836	15.40	10.44	547	3,230	7.38	1.15
Total	**8,413**	**334,446**	**46.20**	**36.81**	**2,766**	**104,857**	**37.30**	**37.45**
Construction & Development								
Agriculture	635	32,372	3.49	3.56	811	11,351	10.94	4.05
Funeral Home & Cemetery	14	3,956	0.08	0.44	9	769	0.12	0.27
Healthcare	122	30,467	0.67	3.35	152	7,231	2.05	2.58
Independent Pharmacies	7	2,013	0.04	0.22	1	101	0.01	0.04
Registered Investment Advisors	6	294	0.03	0.03	7	378	0.09	0.14
Veterinary Industry	59	11,514	0.32	1.27	29	3,834	0.39	1.37
Other Industries	850	31,715	4.67	3.49	55	658	0.74	0.24
Total	**1,693**	**112,331**	**9.30**	**12.36**	**1,064**	**24,322**	**14.34**	**8.69**
Commercial Real Estate								
Agriculture	108	5,591	0.59	0.62	129	1,863	1.74	0.67
Funeral Home & Cemetery	410	52,510	2.25	5.78	99	20,327	1.34	7.26
Healthcare	693	114,281	3.81	12.58	561	37,684	7.57	13.46
Independent Pharmacies	434	15,151	2.38	1.67	33	7,298	0.45	2.61
Registered Investment Advisors	220	11,462	1.21	1.26	30	2,808	0.40	1.00
Veterinary Industry	2,230	102,906	12.25	11.33	1,302	59,999	17.56	21.43
Other Industries	1,802	46,245	9.90	5.09	332	4,752	4.48	1.70
Total	**5,897**	**348,146**	**32.39**	**38.33**	**2,486**	**134,731**	**33.54**	**48.13**
Commercial Land								
Agriculture	2,206	113,569	12.11	12.50	1,099	16,036	14.82	5.73
Total	**2,206**	**113,569**	**12.11**	**12.50**	**1,099**	**16,036**	**14.82**	**5.73**
Total	**$ 18,209**	**$ 908,492**	**100.00%**	**100.00%**	**$ 7,415**	**$ 279,946**	**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.

	2019	2018	2017	2016	2015
Allowance for Loan and Lease Losses:					
Beginning Balance	$ 32,434	$ 24,190	$ 18,209	$ 7,415	$ 4,407
Provision	19,573	13,058	9,536	12,536	3,806
Charge-offs:					
Commercial & Industrial					
Agriculture	(18)	—	—	—	—
Healthcare	(248)	(599)	(1,367)	(1,137)	(44)
Independent Pharmacies	(1,177)	(2,296)	(882)	(6)	(274)
Registered Investment Advisors	(70)	(526)	(236)	—	—
Veterinary Industry	(124)	(50)	(132)	(321)	(660)
Other Industries	(1,147)	(744)	—	—	—
Total	(2,784)	(4,215)	(2,617)	(1,464)	(978)
Commercial Real Estate					
Funeral Home & Cemetery	(74)	—	—	—	—
Healthcare	—	(19)	(14)	—	(29)
Independent Pharmacies	—	(403)	(541)	—	—
Veterinary Industry	(2)	(619)	(622)	(707)	(135)
Other Industries	(1,103)	—	—	—	—
Total	(1,179)	(1,041)	(1,177)	(707)	(164)
Commercial Land					
Agriculture	(327)	(241)	(58)	(63)	—
Total	(327)	(241)	(58)	(63)	—
Total charge-offs	(4,290)	(5,497)	(3,852)	(2,234)	(1,142)
Recoveries:					
Commercial & Industrial					
Healthcare	133	161	79	104	126
Independent Pharmacies	161	181	3	40	70
Registered Investment Advisors	—	30	—	—	—
Veterinary Industry	32	40	19	342	17
Other Industries	166	81	—	—	—
Total	492	493	101	486	213
Commercial Real Estate					
Healthcare	—	14	—	—	—
Independent Pharmacies	—	—	170	—	—
Veterinary Industry	33	176	21	6	131
Total	33	190	191	6	131
Commercial Land					
Agriculture	5	—	5	—	—
Total	5	—	5	—	—
Total recoveries	530	683	297	492	344
Ending Balance	$ 48,247	$ 32,434	$ 24,190	$ 18,209	$ 7,415

Investment Securities

Investment securities totaled $540.0 million at December 31, 2019, an increase of $159.5 million, or 41.9%, compared to $380.5 million at December 31, 2018. The large increase in the investment portfolio for 2019 was primarily related to a strategic initiative to enhance the Company's contingent funding sources and reduce the Company's asset-sensitivity to interest rate risk by adding longer duration assets to the balance sheet. This also included purchases of $17.3 million in mortgage-backed securities for purposes of complying with the Community Reinvestment Act and purchases of $148.4 million in mortgage-backed securities and $61.8 million in collateralized mortgage obligations to increase yield and duration. In addition, the Company purchased $17.2 million in US government agencies and $8.4 million in municipal bonds. There was also a $92 thousand loan to a municipality classified and recorded under GAAP as a municipal bond investment during 2019.

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.

	2019		2018		2017	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value
US treasury securities	$ 4,988	$ 5,015	$ 4,969	$ 4,966	$ —	$ —
US government agencies	22,444	22,779	31,121	30,944	22,778	22,624
Mortgage-backed securities	488,694	503,297	345,606	343,581	70,167	68,696
Mutual fund	—	—	—	—	2,090	2,035
Municipal bonds	8,493	8,954	1,000	999	—	—
Total securities	$ 524,619	$ 540,045	$ 382,696	$ 380,490	$ 95,035	$ 93,355

At December 31, 2019, the duration of the overall available-for-sale securities portfolio was approximately 5.18 years.

The following table sets forth the stated maturities and weighted average yields of investment securities at December 31, 2019. 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.

	Total	Within One Year		After One to Five Years		After Five to Ten Years		After Ten Years	
	Amortized Cost	Amortized Cost	Average Yield	Amortized Cost	Average Yield	Amortized Cost	Average Yield	Amortized Cost	Average Yield
US treasury securities	$ 4,988	$ 4,988	2.13%	$ —	—%	$ —	—%	$ —	—%
US government securities	22,444	7,008	2.52	12,520	2.36	2,916	2.84	—	—
Mortgage-backed securities	488,694	—	—	5,030	2.43	152,561	2.99	331,103	3.13
Municipal bonds	8,493	—	—	—	—	—	—	8,493	4.77
Total securities	$524,619	$ 11,996	2.36%	$ 17,550	2.38%	$155,477	2.99%	$339,596	3.17%

At December 31, 2019, the Company had 93.2% of its total investment securities portfolio in mortgage-backed securities, compared with 90.3% at December 31, 2018. The Company has continued to purchase mortgage-backed securities in order to obtain a favorable yield with low risk.

The Company did not have debt obligations of any issuer in excess of 10% of equity at year-end 2019, 2018 or 2017, excluding U.S. government sponsored entities.

Deposits

The following table sets forth the composition of deposits.

	2019		2018		2017	
	Total	Percent	Total	Percent	Total	Percent
Period end:						
Noninterest-bearing demand deposits	$ 54,107	1.28%	$ 53,993	1.71%	$ 57,868	2.56%
Interest-bearing deposits:						
Interest-bearing checking	—	—	2,099	0.07	36,978	1.64
Money market	86,754	2.05	89,329	2.84	188,146	8.32
Savings	1,101,065	26.04	886,718	28.15	696,989	30.84
Time deposits	2,987,196	70.63	2,117,444	67.23	1,280,282	56.64
Total	4,175,015	98.72%	3,095,590	98.29%	2,202,395	97.44%
Total period end deposits	$4,229,122	100.00%	$3,149,583	100.00%	$2,260,263	100.00%

	2019			2018			2017		
	Total	Percent	Average Rate	Total	Percent	Average Rate	Total	Percent	Average Rate
Average:									
Noninterest-bearing demand deposits	$ 51,699	1.38%	—%	$ 50,580	1.75%	—%	$ 40,831	2.21%	—%
Interest-bearing deposits:									
Interest-bearing checking	42	0.00	1.07	32,792	1.14	1.04	39,213	2.12	0.65
Money market	86,175	2.31	0.65	131,495	4.55	1.10	413,648	22.38	0.98
Savings	1,013,177	27.12	2.03	911,757	31.56	1.68	193,083	10	1.39
Time deposits	2,585,367	69.19	2.58	1,761,948	61.00	2.12	1,161,651	62.84	1.48
Total average deposits	$3,736,460	100.00%	2.39%	$2,888,572	100.00%	1.92%	$1,848,426	100.00%	1.34%

Deposits increased to $4.23 billion at December 31, 2019 from $3.15 billion at December 31, 2018, an increase of $1.08 billion, or 34.3%. 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 wholesale funding. The $2.1 million decrease in interest-bearing checking was related to the remaining wind-down of the Company's trust operations that primarily occurred in 2018. Noninterest-bearing deposits increased $114 thousand, or 0.2%, during this period, and interest-bearing deposits increased $1.08 billion, or 34.9%, during the same period. The growth in deposits during 2018 was primarily in savings and time deposits, offset by a strategic initiative to reduce the Company's wholesale money market funds. Long-term wholesale funding contributed to the time deposit increases.

At December 31, 2019, the aggregate balance of time deposit accounts individually equal to or greater than $100 thousand totaled $1.63 billion. At December 31, 2019, 80.9% 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, 2019 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	$ 597,935	$ 288,896	$ 431,276	$ 312,083
Other time deposits	213,600	229,700	323,880	589,826
Total time deposits	$ 811,535	$ 518,596	$ 755,156	$ 901,909

Borrowings

Total borrowings decreased $1.4 million at December 31, 2019 from December 31, 2018 as a result of the following:

In 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 accrued at prime plus 1% with monthly principal and interest payments over a term of 60 months. The maturity date was October 5, 2019. The pledged collateral was classified in other assets with a fair value of $1.4 million at December 31, 2018. The remaining loan with an outstanding balance of $1.3 million was repurchased by the Company on November 7, 2019.

In 2018, the Company renewed a revolving line of credit issued in 2017. The line of credit is unsecured and accrues interest at 30-day LIBOR plus 1.15% for a term of 13 months. Payments are interest only with all principal and accrued interest due on October 20, 2020. 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 $50.0 million of available credit remaining at December 31, 2019.

In 2017, the Company entered into a financing 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. As of January 1, 2019, this borrowing was revised in accordance with ASU 2016-02.

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 Coverage Ratio ("VLCR") model to stress outflows in various scenarios with targeted days of liquidity coverage. The VLCR model output is then used by management to ensure adequate liquidity sources are available during those future periods. At December 31, 2019, the total amount of these four liquidity source items was $1.19 billion, or 24.8% of total assets, a decrease of 3.6% of total assets from $1.04 billion, or 28.4% of total assets, at December 31, 2018.

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, 2019, none of the investment securities portfolio was pledged to secure public deposits or pledged to retail repurchase agreements, leaving $540.0 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 2.09% at December 31, 2019. During the year ending December 31, 2019, 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, 2019, 2018 and 2017 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, 2019						
Common Equity Tier 1 (to Risk-Weighted Assets)	$ 499,513	14.85%	$ 151,365	4.50%	N/A	N/A
Total Capital (to Risk-Weighted Assets)	$ 541,635	16.10%	$ 269,093	8.00%	N/A	N/A
Tier 1 Capital (to Risk-Weighted Assets)	$ 499,513	14.85%	$ 201,820	6.00%	N/A	N/A
Tier 1 Capital (to Average Assets)	$ 499,513	10.65%	$ 187,582	4.00%	N/A	N/A
Bank - December 31, 2019						
Common Equity Tier 1 (to Risk-Weighted Assets)	$ 451,807	13.61%	$ 149,370	4.50%	$ 215,757	6.50%
Total Capital (to Risk-Weighted Assets)	$ 493,382	14.86%	$ 265,547	8.00%	$ 331,934	10.00%
Tier 1 Capital (to Risk-Weighted Assets)	$ 451,807	13.61%	$ 199,161	6.00%	$ 265,547	8.00%
Tier 1 Capital (to Average Assets)	$ 451,807	9.68%	$ 186,627	4.00%	$ 233,283	5.00%
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%

(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, 2019. 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	$1,241,926	$1,241,926	$ —	$ —	$ —
Time deposits	2,987,196	2,085,287	653,461	193,435	55,013
Borrowings	14	5	9	—	—
Operating lease obligations	3,308	670	893	500	1,245
Total	$4,232,444	$3,327,888	$ 654,363	$ 193,935	$ 56,258

As of December 31, 2019 and 2018, the Company had commitments for on-balance sheet instruments in the amount of $16.9 million and $2.8 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, 2019, 2018 and 2017 are as follows:

	2019	2018	2017
Commitments to extend credit (1)	$ 1,834,449	$ 1,435,024	$ 1,701,137
Standby letters of credit	25,532	2,150	2,298
Solar purchase commitments	—	—	106,921
Airplane purchase agreement commitments	—	10,450	25,450
Total commitments	$ 1,859,981	$ 1,447,624	$ 1,835,806

(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 gain on sale of aircraft and the gain on contribution to equity method 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, impairment expense on goodwill and other intangibles, a contract modification for Reltco, and impairments of 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,		
	2019	2018	2017
Total shareholders' equity	$ 532,386	$ 493,560	$ 436,933
Less:			
Goodwill	—	—	—
Other intangible assets	—	—	4,264
Tangible shareholders' equity (a)	$ 532,386	$ 493,560	$ 432,669
Shares outstanding (c)	40,316,974	40,155,792	39,895,583
Total assets	$ 4,814,970	$ 3,670,449	$ 2,758,474
Less:			
Goodwill	—	—	—
Other intangible assets	—	—	4,264
Tangible assets (b)	$ 4,814,970	$ 3,670,449	$ 2,754,210
Tangible shareholders' equity to tangible assets (a/b)	11.06%	13.45%	15.71%
Tangible book value per share (a/c)	$ 13.20	$ 12.29	$ 10.85
Efficiency ratio:			
Noninterest expense (d)	$ 164,924	$ 152,704	$ 143,165
Net interest income	140,082	108,043	78,034
Noninterest income	67,880	103,765	172,921
Less: gain on sale of securities	620	—	—
Adjusted operating revenue (e)	$ 207,342	$ 211,808	$ 250,955
Efficiency ratio (d/e)	79.54%	72.10%	57.05%

	Years Ended December 31,		
	2019	2018	2017
Reconciliation of net income to non-GAAP net income adjusted for non-routine income and expenses:			
Net income attributable to Live Oak Bancshares, Inc.	$ 18,034	$ 51,448	$ 100,499
Gain on sale of aircraft	(357)	—	—
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	1,429	1,370
Merger costs associated with Reltco acquisition and Apiture investment	—	—	2,874
Trade-in loss on aircraft	—	—	206
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	602	—	690
Income tax effects and adjustments for non-GAAP items*	(402)	(986)	23,045
Deferred tax liability revaluation	—	—	(18,921)
Other renewable energy tax expense	—	—	176
Non-GAAP net income	$ 19,306	$ 54,571	$ 47,187
* Estimated at 24.0% for 2019 and 2018 and 40.0% for 2017			
Earnings per share:			
Basic	$ 0.48	$ 1.36	$ 1.29
Diluted	$ 0.47	$ 1.32	$ 1.25
Weighted-average shares outstanding:			
Basic	40,222,758	40,056,230	36,592,893
Diluted	41,053,514	41,446,750	37,859,535
Reconciliation of financial statement line items as reported to adjusted for non-routine income and expenses:			
Noninterest income, as reported	$ 67,880	$ 103,765	$ 172,921
Gain on contribution to equity method investment	—	—	(68,000)
Gain on sale of aircraft	(357)	—	—
Noninterest income, as adjusted	67,523	103,765	104,921
Noninterest expense, as reported	164,924	152,704	143,165
Stock based compensation expense	(1,429)	(1,429)	(1,370)
Merger costs associated with Reltco acquisition and Apiture investment	—	—	(2,874)
Trade-in loss on aircraft	—	—	(206)
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	(602)	—	(690)
Noninterest expense, as adjusted	162,893	148,595	132,777
Income before taxes, as reported	23,465	46,046	98,254
Gain on contribution to equity method investment	—	—	(68,000)
Gain on sale of aircraft	(357)	—	—
Stock based compensation expense	1,429	1,429	1,370
Merger costs associated with Reltco acquisition and Apiture investment	—	—	2,874
Trade-in loss on aircraft	—	—	206
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	602	—	690
Income before taxes, as adjusted	25,139	50,155	40,642
Income tax expense (benefit), as reported	5,431	(5,402)	(2,245)
Income tax effects and adjustment for non-routine income and expenses	402	986	(23,045)
Deferred tax liability revaluation	—	—	18,921
Other renewable energy tax expense	—	—	(176)
Income tax expense (benefit), as adjusted	$ 5,833	$ (4,416)	$ (6,545)

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 2.09% as of December 31, 2019, 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 three 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, 2020 and 2021 and the Company's EVE sensitivity at December 31, 2019. The simulation uses projected repricing of assets and liabilities at December 31, 2019 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 85.3% 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 which is 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

	Estimated Increase/Decrease in Net Interest Income		**Estimated Percentage Change in EVE**
Basis Point ("bp") Change in Interest Rates	**12 Months Ending December 31, 2020**	**12 Months Ending December 31, 2021**	**As of December 31, 2019**
+400	17.1%	3.5%	(23.9)%
+300	12.9	2.6	(18.5)
+200	8.6	1.7	(12.5)
+100	4.3	0.9	(6.2)
-100	(4.3)	(0.9)	6.6

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 have 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)	2019			
	4th Qtr	3rd Qtr	2nd Qtr	1st Qtr
Interest income	$ 61,813	$ 61,107	$ 55,138	$ 49,922
Interest expense	23,802	23,576	21,203	19,317
Net interest income	38,011	37,531	33,935	30,605
Provision for loan and lease losses	6,208	7,160	3,463	2,742
Net interest income after provision for loan and lease losses	31,803	30,371	30,472	27,863
Noninterest income	21,524	18,628	14,701	13,027
Noninterest expense	44,410	42,737	39,576	38,201
Income before income taxes	8,917	6,262	5,597	2,689
Income tax expense	2,085	2,367	662	317
Net income to common shareholders	$ 6,832	$ 3,895	$ 4,935	$ 2,372
Net income per share:				
Basic	$ 0.17	$ 0.10	$ 0.12	$ 0.06
Diluted	$ 0.17	$ 0.09	$ 0.12	$ 0.06

	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 (benefit) expense	(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

DIXON HUGHES GOODMAN LLP

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, 2019 and 2018, 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, 2019, 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, 2019 and 2018, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2019, 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, 2019, 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, 2020, 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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit and risk committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Servicing Assets

As described within Notes 1 and 7 to the consolidated financial statements, the Company recognizes servicing assets which represent the portion of the servicing spread that exceeds adequate compensation for the servicing function of the sold portion of loans originated by the Company. Servicing assets of $35.4 million as of December 31, 2019 are carried at fair value with changes in the fair value recorded in income as loan servicing asset revaluation. The determination of fair value of the servicing asset is based on a valuation model that 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. 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.

We identified the Company's valuation of the servicing asset as a critical audit matter. The principal considerations for our determination include the high degree of auditor judgment required to assess the reasonableness of the assumptions used in the valuation model. For instance, certain model assumptions, such as the discount rate and inflation rate, are inputs that we are able to assess using observable market data, while others, including prepayment speeds and default rates, are developed using proprietary information from management's internal valuation specialists' database. As such, these inputs are unobservable and required significant audit effort to address, including engaging our internal valuation specialists to assist us in evaluating the methodologies and assumptions used by management.

The primary audit procedures we performed to address this critical audit matter included the following:

- We evaluated the design and operating effectiveness of controls relating to the valuation of servicing assets, including controls over management's valuation model which are designed to ensure the completeness and accuracy of data used in the model and controls over the determination of significant inputs and assumptions, including unobservable inputs, used in the model.
- We involved the firm's internal valuation specialists to assist in evaluating the methodologies and assumptions used by management, including assessing the reasonableness of significant observable and unobservable inputs and assumptions of the valuation model such as discount rates and prepayment speed and independently calculating the discounted cash flows at the individual loan level for a sample of loans and comparing to management's estimate.
- We assessed the overall trends for the discount rate, prepayment speed, and servicing asset to compare the quarterly change and how the Company's discount rate assumptions compared to observable market interest rate trends.

Allowance for Loan and Lease Losses (ALLL)

As described in Notes 1 and 5 to the consolidated financial statements, the Company's allowance for loan and lease losses (ALLL) was $48.2 million as of December 31, 2019 and 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. 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.

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. The Company utilizes the fair market value of collateral method or the present value of future cash flow method to analyze impaired loans and leases. For the general reserve component, quantitative allowances are calculated based on the loss experience of specific types of loans and leases. Internal and external indicators, such as business type concentrations, vertical maturity, unemployment rates, experience of the bank's servicing staff, and changes in asset quality are considered when calculating the qualitative allowances.

We identified the Company's estimate of the ALLL as a critical audit matter. The principal considerations for our determination of the allowance for loan and lease losses as a critical audit matter include the degree of judgment and subjectivity used by management to identify and value impaired loans and leases, assess and evaluate the probability of collection, and determine the fair value of collateral, less selling cost, or present value of future cash flows to calculate the reserve. Additionally, management applied significant judgment in determining the nature and impact of the adjustments applied when calculating the qualitative allowance for pooled loans and leases. As such, auditing management's judgments regarding the identification and valuation of impaired loans and leases and qualitative factors applied in the ALLL calculation involved a high degree of subjectivity and required a higher degree of auditor judgment to address.

The primary procedures we performed to address this critical audit matter included the following:

- We evaluated the design and operating effectiveness of controls relating to management's determination of the allowance for loan and lease losses, including controls over management's credit administration function to ensure the timely and complete identification of impaired loans and leases, management's review of portfolio trends that might impact the calculation of the ALLL, and management's review of the ALLL, including the review of adjustments applied when determining the qualitative allowance to ensure they are applied properly.
- We tested the calculation of losses on identified impaired loans and leases, including assessing the reasonableness of the significant assumptions including adjustments made to appraisals for discounts, selling costs and other unobservable adjustments, if applicable.
- We tested the completeness of the impaired loan and lease population, including testing the modifications for potential troubled debt restructurings, substandard or worse rated loans and leases, non-accrual loans and leases, and past due loans and leases.
- We evaluated management's application of qualitative factor adjustments to the ALLL, which includes the comparison of factors considered by management to third party or internal sources, as applicable, and evaluating management's rationale behind the application of qualitative factors and consistency in that application.
- Assessed the overall trends in credit quality, including the review of the year-over-year changes in qualitative factors, at the Company and in the industry and how the Company's ALLL compared to those trends.

/s/ Dixon Hughes Goodman LLP

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

Raleigh, North Carolina
February 27, 2020

DIXON HUGHES GOODMAN LLP

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

We have audited Live Oak Bancshares, Inc.'s (the "Company") internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, Live Oak Bancshares, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, 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, 2019 and 2018 and for each of the three years in the period ended December 31, 2019, and our report dated February 27, 2020, 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, 2020

Live Oak Bancshares, Inc.
Consolidated Balance Sheets
(Dollars in thousands)

	December 31, 2019	December 31, 2018
Assets		
Cash and due from banks	$ 126,752	$ 316,823
Federal funds sold	96,787	—
Certificates of deposit with other banks	7,250	7,250
Investment securities available-for-sale	540,045	380,490
Loans held for sale	966,447	687,393
Loans and leases held for investment	2,647,299	1,843,419
Allowance for loan and lease losses	(48,247)	(32,434)
Net loans and leases	2,599,052	1,810,985
Premises and equipment, net	279,099	262,524
Foreclosed assets	5,612	1,094
Servicing assets	35,365	47,641
Operating lease right-of-use assets	2,427	—
Other assets	156,134	156,249
Total assets	$ 4,814,970	$ 3,670,449
Liabilities and Shareholders' Equity		
Liabilities		
Deposits:		
Noninterest-bearing	$ 54,107	$ 53,993
Interest-bearing	4,175,015	3,095,590
Total deposits	4,229,122	3,149,583
Borrowings	14	1,457
Operating lease liabilities	2,619	—
Other liabilities	50,829	25,849
Total liabilities	4,282,584	3,176,889
Shareholders' equity		
Preferred stock, no par value, 1,000,000 authorized, none issued or outstanding at December 31, 2019 and December 31, 2018	—	—
Class A common stock, no par value, 100,000,000 shares authorized, 37,401,443 and 35,512,262, shares issued and outstanding at December 31, 2019 and December 31, 2018, respectively	309,526	278,945
Class B common stock, no par value, 10,000,000 shares authorized, 2,915,531 and 4,643,530 shares issued and outstanding at December 31, 2019 and December 31, 2018, respectively	30,871	49,168
Retained earnings	180,265	167,124
Accumulated other comprehensive income (loss)	11,724	(1,677)
Total shareholders' equity	532,386	493,560
Total liabilities and shareholders' equity	$ 4,814,970	$ 3,670,449

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,		
	2019	2018	2017
Interest income			
Loans and fees on loans	$ 207,836	$ 147,310	$ 99,633
Investment securities, taxable	15,345	8,733	1,432
Other interest earning assets	4,799	6,600	2,407
Total interest income	227,980	162,643	103,472
Interest expense			
Deposits	87,897	54,469	24,223
Borrowings	1	131	1,215
Total interest expense	87,898	54,600	25,438
Net interest income	140,082	108,043	78,034
Provision for loan and lease losses	19,573	13,058	9,536
Net interest income after provision for loan and lease losses	120,509	94,985	68,498
Noninterest income			
Loan servicing revenue	28,034	29,121	24,588
Loan servicing asset revaluation	(4,812)	(18,765)	(13,171)
Net gains on sales of loans	29,002	75,170	78,590
Equity method investments income (loss)	(7,889)	(386)	(513)
Equity security investments gains (losses), net	3,532	213	89
Gain on sale of investment securities available-for-sale	620	—	—
Lease income	9,655	7,966	1,856
Gain on contribution to equity method investment	—	—	68,000
Construction supervision fee income	1,765	2,277	1,776
Title insurance income	—	2,775	7,565
Other noninterest income	7,973	5,394	4,141
Total noninterest income	67,880	103,765	172,921
Noninterest expense			
Salaries and employee benefits	90,634	77,411	74,669
Travel expense	6,921	9,156	8,124
Professional services expense	6,859	4,878	4,937
Advertising and marketing expense	5,936	6,015	6,363
Occupancy expense	8,116	7,065	6,195
Data processing expense	9,265	12,010	8,449
Equipment expense	16,327	13,724	7,479
Other loan origination and maintenance expense	9,272	5,967	4,970
Renewable energy tax credit investment impairment	602	—	690
FDIC insurance	3,447	3,234	3,206
Title insurance closing services expense	—	912	2,418
Impairment expense on goodwill and other intangibles	—	2,680	3,648
Other expense	7,545	9,652	12,017
Total noninterest expense	164,924	152,704	143,165
Income before taxes	23,465	46,046	98,254
Income tax expense (benefit)	5,431	(5,402)	(2,245)
Net income	18,034	51,448	100,499
Basic earnings per share	$ 0.45	$ 1.28	$ 2.75
Diluted earnings per share	$ 0.44	$ 1.24	$ 2.65

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.
Consolidated Statements of Comprehensive Income
(Dollars in thousands)

	Years Ended December 31,		
	2019	2018	2017
Net income	$ 18,034	$ 51,448	$ 100,499
Other comprehensive income (loss) before tax:			
Net unrealized gain (loss) on investment securities arising during the period	18,252	(526)	(619)
Reclassification adjustment for gain on sale of securities available-for-sale included in net income	(620)	—	—
Other comprehensive income (loss) before tax	17,632	(526)	(619)
Income tax (expense) benefit	(4,231)	126	238
Other comprehensive income (loss), net of tax	13,401	(400)	(381)
Total comprehensive income	$ 31,435	$ 51,048	$ 100,118

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				Accumulated	
	Shares				other	
				Retained	comprehensive	Total
	Class A	Class B	Amount	earnings	income (loss)	equity
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 voting common stock in private sale	80,000	(80,000)	—	—	—	—
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
Net income	—	—	—	18,034	—	18,034
Other comprehensive income	—	—	—	—	13,401	13,401
Issuance of restricted stock	61,121	—	—	—	—	—
Withholding cash issued in lieu of restricted stock issuance	—	—	(409)	—	—	(409)
Employee stock purchase program	29,493	—	437	—	—	437
Non-voting common stock converted to voting common stock in private sale	1,727,999	(1,727,999)	—	—	—	—
Stock option exercises	70,568	—	508	—	—	508
Stock option based compensation expense	—	—	1,723	—	—	1,723
Restricted stock expense	—	—	10,025	—	—	10,025
Cumulative effect of accounting change for Accounting Standards Update 2016-02	—	—	—	(66)	—	(66)
Cash dividends ($0.12 per share)	—	—	—	(4,827)	—	(4,827)
Balance at December 31, 2019	37,401,443	2,915,531	$340,397	$180,265	$ 11,724	$532,386

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.
Consolidated Statements of Cash Flows
(Dollars in thousands)

	Years Ended December 31,		
	2019	2018	2017
Cash flows from operating activities			
Net income	$ 18,034	$ 51,448	$ 100,499
Adjustments to reconcile net income to net cash provided (used) by operating activities:			
Depreciation and amortization	19,967	16,386	10,279
Provision for loan and lease losses	19,573	13,058	9,536
Amortization of premium on securities, net of accretion	507	802	460
Change in discount on unguaranteed loans	(9,270)	2,768	2,848
Impairment expense on goodwill and other intangibles, net	—	2,680	3,648
Deferred tax expense (benefit)	1,467	(5,936)	12,017
Originations of loans held for sale	(1,005,165)	(1,079,472)	(1,149,617)
Proceeds from sales of loans held for sale	457,533	1,086,614	883,366
Net gains on sale of loans held for sale	(29,002)	(75,170)	(78,590)
Net loss on sale of foreclosed assets	25	38	59
Gain on contribution to equity method investment	—	—	(68,000)
Net decrease (increase) in servicing assets	12,276	4,657	(304)
Gain on sale of securities available-for-sale	(620)	—	—
Net gain on sale or disposal of long lived asset	(357)	—	—
Net loss on disposal of premises and equipment	109	37	215
Equity method investments (income) loss	7,889	386	513
Equity security investments (gains) losses, net	(3,532)	(213)	(89)
Renewable energy tax credit investment impairment	602	—	690
Stock option based compensation expense	1,723	1,713	1,786
Restricted stock expense	10,025	7,463	5,717
Stock based compensation expense excess tax (shortfall) benefit	(125)	101	1,002
Business combination contingent consideration fair value adjustment	—	(260)	1,950
Changes in assets and liabilities:			
Lease right-of-use assets, net	126	—	—
Other assets	394	(14,040)	(25,671)
Other liabilities	3,896	(1,539)	157
Net cash provided (used) by operating activities	(493,925)	11,521	(287,529)
Cash flows from investing activities			
Purchases of securities available-for-sale	(253,100)	(347,184)	(43,071)
Proceeds from sales, maturities, calls, and principal paydowns of securities available-for-sale	111,290	56,631	19,693
Proceeds from sale/collection of foreclosed assets, net	796	527	1,498
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)	—
Maturities of certificates of deposit with other banks	—	2,500	4,250
Loan and lease originations and principal collections, net	(505,848)	(445,643)	(385,551)
Proceeds from sale of long lived asset	10,895	—	—
Proceeds from sale of premises and equipment	—	865	—
Purchases of premises and equipment, net	(37,197)	(111,322)	(124,139)
Net cash used by investing activities	(673,164)	(850,585)	(535,016)

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.
Consolidated Statements of Cash Flows (Continued)
(Dollars in thousands)

	Years Ended December 31,		
	2019	2018	2017
Cash flows from financing activities			
Net increase in deposits	$ 1,079,539	$ 889,320	$ 775,187
Proceeds from borrowings	—	18	40,000
Repayment of borrowings	(1,443)	(25,125)	(41,279)
Stock option exercises	508	1,626	1,026
Employee stock purchase program	437	342	445
Withholding cash issued in lieu of restricted stock	(409)	(756)	(4,891)
Sale of common stock, net of issuance costs	—	—	113,096
Shareholder dividend distributions	(4,827)	(4,809)	(3,776)
Net cash provided by financing activities	1,073,805	860,616	879,808
Net (decrease) increase in cash and cash equivalents	(93,284)	21,552	57,263
Cash and cash equivalents, beginning	316,823	295,271	238,008
Cash and cash equivalents, ending	$ 223,539	$ 316,823	$ 295,271
Supplemental disclosure of cash flow information			
Interest paid	$ 87,280	$ 54,106	$ 25,390
Income tax (received) paid, net	(12,293)	1,750	7,084
Supplemental disclosures of noncash operating, investing, and financing activities			
Unrealized holding gains (losses) on available-for-sale securities, net of taxes	$ 13,401	$ (400)	$ (381)
Transfers from loans and leases to foreclosed real estate and other repossessions	5,058	346	1,406
Net transfers (to) from foreclosed real estate to SBA receivable	(281)	(32)	216
Transfer from fixed assets to other assets held for sale	—	10,467	—
Transfer of loans held for sale to loans and leases held for investment	277,964	131,266	63,643
Transfer of loans and leases held for investment to loans held for sale	39,067	94,154	19,534
Accrued premises and equipment additions	88	534	—
Loans to finance sale of other assets	—	3,642	—
Right-of-use assets obtained in exchange for lessee operating lease liabilities	2,241	—	—
Equity method investment commitments	16,282	—	—
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 six 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 extends 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"), Water and Environmental Program ("WEP") 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.

The Bank's wholly owned subsidiaries are Live Oak Number One, Inc., Live Oak Clean Energy Financing LLC ("LOCEF"), and Live Oak Private Wealth, LLC.

The Company's wholly owned subsidiaries are the Bank, Government Loan Solutions ("GLS"), Live Oak Grove, LLC ("Grove"), Live Oak Ventures, Inc. ("Live Oak Ventures"), and Canapi Advisors, LLC ("Canapi").

Live Oak Number One, Inc. holds properties foreclosed on by the Bank. GLS is a management and technology consulting firm that advises and offers solutions and services to participants in the government guaranteed lending sector. GLS 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. The Grove provides Company employees and business visitors an on-site restaurant location. Live Oak Ventures' purpose is investing in businesses that align with the Company's strategic initiative to be a leader in financial technology. LOCEF provides financing to entities for renewable energy applications and became a wholly owned subsidiary of the Bank during the first quarter of 2019. Live Oak Private Wealth, LLC was formed in June 2018 for the purpose of providing high-net-worth individuals and families with strategic wealth and investment management services. Canapi was formed in September 2018 for the purpose of providing investment advisory services to a series of new funds focused on providing venture capital to new and emerging financial technology companies.

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. 504FA exited as advisor for the 504 Fund in May 2019 and the Company subsequently dissolved this legal entity.

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.

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.

The Company has evaluated subsequent events for potential recognition and/or disclosure through the date these consolidated financial statements were issued.

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, Inc., GLS, 504FA, Grove, Live Oak Ventures, LOCEF, Reltco, Live Oak Private Wealth, LLC and Canapi. 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, 2019 and 2018:

	2019	2018
Investment carrying amount	$ —	$ 602
Maximum exposure to loss	1,758	3,240

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, restricted stock unit awards with market price conditions 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 was 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” and “federal funds sold.” 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 $1.0 million and $1.7 million for the years ended December 31, 2019 and 2018, respectively.

Certificates of Deposit with other Banks

Certificates of deposit with other banks have maturities ranging from November 2020 through November 2023 and bear interest at rates ranging from 0.20% to 3.55%. All investments in certificates of deposit are with FDIC insured financial institutions and none exceed the maximum insurable amount of $250 thousand.

Investments

Securities

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 typically 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 while the impact is largely reflected in the equity method investments income (loss) and equity security investments gains (losses), net line items on the consolidated statements of income. 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. During the third quarter of 2019, the Company recorded a gain of $3.7 million resulting from an observable price change arising from orderly transactions for one of its non-marketable equity investments. 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 $3.3 million and $3.1 million at December 31, 2019 and 2018, respectively.

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, 2019 and 2018:

	2019	2018
Balance at beginning of year	$ 687,393	$ 680,454
Originations	1,005,165	1,079,472
Proceeds from sale	(457,533)	(1,086,614)
Gain on sale of loans	29,002	75,170
Principal collections, net of deferred fees and costs	(58,683)	(23,977)
Non-cash transfers, net	(238,897)	(37,112)
Balance at end of period	$ 966,447	$ 687,393

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.

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 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. Prior to December 31, 2018, 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.

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 the 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.

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. 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. As of December 31, 2019 and 2018, the cash margin balances were $2.7 million and $1.0 million, respectively. 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 $3.0 million, a loss of $68 thousand and a gain of $117 thousand on the derivative contracts for the years ended December 31, 2019, 2018 and 2017, respectively. The total notional amount of derivative contracts outstanding was $20.4 million, $40.3 million and $29.9 million as of December 31, 2019, 2018 and 2017, 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.

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, 2019 and 2018.

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. There was no impairment charge for the year ended December 31, 2019. 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 Impairment Evaluation

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, 2019, 2018 and 2017, there were no impairments of long-lived assets.

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 closed 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. A $357 thousand gain associated with the sale of the aircraft was recorded upon consummation of the sale in the first quarter of 2019 and is reflected in the 2019 consolidated statement of income in the “Other noninterest income” line item.

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.

During 2019, 1,727,999 shares of Class B common stock (non-voting) were converted to Class A common stock (voting) in connection with private sales. This conversion decreased the value of Class B common stock (non-voting) and increased the value of Class A common stock (voting) by $18.3 million.

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 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 for all awards within an individual grant, including ones with graded vesting features. The fair value of the restricted stock awards or units with a market price condition and implied service period are calculated using the Monte Carlo Simulation method. The impact of forfeitures on stock-based compensation expense is recognized as forfeitures occur. See Note 14. Benefit Plans for further discussion and detail.

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. See Note 12. Fair Value of Financial Instruments for further discussion and detail.

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, 2019	2018	2017
Basic earnings per share:			
Net income available to common shareholders	$ 18,034	$ 51,448	$ 100,499
Weighted-average basic shares outstanding	40,222,758	40,056,230	36,592,893
Basic earnings per share	$ 0.45	$ 1.28	$ 2.75
Diluted earnings per share:			
Net income available to common shareholders, for diluted earnings per share	$ 18,034	$ 51,448	$ 100,499
Total weighted-average basic shares outstanding	40,222,758	40,056,230	36,592,893
Add effect of dilutive stock options and restricted stock grants	830,756	1,390,520	1,266,642
Total weighted-average diluted shares outstanding	41,053,514	41,446,750	37,859,535
Diluted earnings per share	$ 0.44	$ 1.24	$ 2.65
Anti-dilutive shares	1,071,467	1,111,236	253,338

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

In addition to lending and related activities the Company offers various services to customers that generate revenue. The Company does not typically enter into long-term revenue contracts with customers, and therefore, does not experience significant contract balances. Incremental costs of obtaining a contract are expensed when incurred when the amortization period is one year or less. As of December 31, 2019 and 2018, remaining performance obligations consisted primarily of serviced based revenues for contracts with an original expected length of one year or less.

Service based revenues are included in other noninterest income and consist of other recurring revenue streams from services provided by GLS to its clients for settlement, accounting and valuation for government guaranteed loan sales and holdings, fund investment advisory services performed by Canapi Advisors, investment management and financial planning services provided by Live Oak Private Wealth, and administration of trust assets held by the Company's trust department.

Service Based Revenues

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.

Canapi Advisors provides investment advisory services to two financial technology venture funds where its performance obligations are satisfied over time. Fund management fees are based upon the contractual terms of the limited partnership agreements and are recognized as earned over the specified contract period, which is generally equal to the life of the individual fund. Fund management fees are calculated as a percentage of committed capital, are collected in advance and received quarterly.

Live Oak Private Wealth's investment management and financial planning performance obligations are generally satisfied over time. Fees are recognized quarterly based on the quarter-end market value of the managed assets as valued by the custodian of the customer's assets and the applicable fee rate. Payment is generally received in advance through a direct charge to customer's accounts. The Company does not earn performance-based incentives from investment management and financial planning services. Contracts with customers may be terminated at any time by either party.

The Company's trust department ceased operations in the first quarter of 2019. Trust account administration performance obligations were generally satisfied over time and fees were recognized monthly, based on the month-end market value of assets in fiduciary accounts and the applicable fee rate. Fees were generally received after month-end through a direct charge to customers' accounts. The Company did not earn performance-based incentives from trust account administration services.

Accounting Change

On January 1, 2019, the Company adopted Accounting Standards Update ("ASU") No. 2016-02 "Leases (Topic 842)," ("ASU 2016-02") and all subsequent ASUs that modified Topic 842. The Company elected 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 has also applied the practical expedient to use hindsight in determining the lease term and in assessing impairment of the right-of-use assets. The Company does not apply the recognition and measurement requirements to any short-term leases (as defined by ASU 2016-02). The Company accounts for lease and non-lease components separately because such amounts are readily determinable under the lease contracts. The Company utilized the modified-retrospective transition approach prescribed by ASU 2018-11, "Leases (Topic 842) Targeted Improvements" ("ASU 2018-11"). The implementation of the new standard resulted in the Company recording $2.2 million of operating lease right-of-use ("ROU") assets, $2.4 million of operating lease liabilities and a cumulative effect adjustment to opening retained earnings of $66 thousand. The Company also recorded $18 thousand of finance ROU assets and finance lease liabilities.

The Company determines if an arrangement is or contains a lease at inception. If it is determined to be or contain a lease, then the lease is classified as an operating or finance lease.

ROU assets represent the Company's right to use an underlying asset for the lease term. Lease liabilities represent the Company's obligation to make lease payments arising from the lease. ROU assets and liabilities are measured on commencement date based on the present value of the lease payments over the lease term, discounted using the discount rate for the lease at commencement. The discount rate shall be the rate implicit in the lease, however, if that is not readily determinable, the Company will use its incremental borrowing rate. The ROU asset also includes any lease payments made before the commencement date and initial direct costs and excludes any lease incentives received. The lease terms may include options to extend or terminate the lease when it is reasonably certain that the option will be exercised. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Operating leases are included in operating lease right-of-use assets and operating lease liabilities in the consolidated balance sheets. Finance leases are included in other assets and long term borrowings in the consolidated balance sheets. Lease expense for operating leases and finance leases is included in occupancy expense in the consolidated statements of income and interest expense for finance leases is included in other interest expense in the consolidated statements of income.

See Note 6. Leases for further discussion and detail.

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 Company adopted the standard on January 1, 2019 with no material effect on its consolidated financial statements.

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 June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-13, "Financial Instruments – Credit Losses (Topic 326): 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 was effective for the Company on January 1, 2020. Through the date of adoption, the Company's cross-functional working group continued to meet in accordance with its implementation plan. During the parallel run process qualitative factors and the reasonable and supportable forecast were refined to ensure the assumptions were appropriate. Operational procedures and internal controls were designed and documented as parallel run results were evaluated. Lastly, an assessment of our third-party vendor's modeling tool was completed while the Company completed parallel runs utilizing data from the third and fourth quarters of 2019.

Management plans to estimate credit losses over a one-year forecast horizon and revert to long term historical loss experience on a straight-line basis over a one-year period. The duration of the forecast period, the method of reversion, and the duration of the reversion period will all be reevaluated at each reporting period to ensure those judgements are appropriate. Management will include forecasted levels of employment as the primary economic variable it believes to be most relevant based on the nature and composition of the loan portfolio. Management also plans to leverage economic projections from a reputable and independent third party to inform its reasonable and supportable forecasts over the forecast period. Based on the fourth quarter parallel run, review of the portfolio, including composition characteristics and quality of the underlying loans, and the prevailing economic conditions and forecasts as of the adoption date, the Company expects the adoption of ASU 2016-13 will result in an immaterial decrease to its loan and lease credit loss reserves of approximately $800 thousand to $1.4 million as well as an immaterial increase to reserves for off-balance sheet exposure of approximately $400 thousand to $800 thousand. The magnitude of this change is consistent with management's expectations considering the age of the Bank and its commercial lending specialization. The adoption of ASU 2016-13 is not expected to have a significant impact on the allowance for expected credit losses for available-for-sale debt securities or other purchased financial assets.

In March 2019, the FASB issued ASU 2019-01, "Leases (Topic 842): Codification Improvements" ("ASU 2019-01"). ASU 2019-01 provides updates to Topic 842 including: (i) guidance on how to determine fair value of leased items for lessors who are not dealers or manufacturers, (ii) cash flow presentation for lessors of sales-type and direct financing leases and (iii) clarifies that certain transition disclosures. The amendments are effective for the Company on January 1, 2020. The Company does not expect these amendments to have a material effect on its consolidated financial statements.

In April 2019, the FASB issued ASU No. 2019-04, "Codification Improvements to Topic 326, Financial Instruments-Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments" ("ASU 2019-04"). ASU 2019-04 provides clarification and minor improvements related to ASU 2016-01 "Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities," ASU 2016-13 "Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments" and ASU 2017-12 "Derivatives and Hedging (Topic 815) - Targeted Improvements to Accounting for Hedging Activities." The standard will be effective for the Company on January 1, 2020 with early adoption permitted. The Company does not expect this standard to have a material effect on its consolidated financial statements.

In May 2019, the FASB issued ASU No. 2019-05, "Financial Instruments – Credit Losses (Topic 326): Targeted Transition Relief" ("ASU 2019-05"). ASU 2019-05 allows entities an option to irrevocably elect the fair value option for eligible instruments upon adoption of Topic 326. The amendments are effective for the Company on January 1, 2020. See discussion of ASU 2016-13 above for impact to the consolidated financial statements.

In November 2019, the FASB issued ASU No. 2019-11, "Codification Improvements to Topic 326, Financial Instruments-Credit Losses" ("ASU 2019-11"). ASU 2019-11 addresses issues raised by stakeholders during the implementation of ASU 2016-13 including: (i) clarifying guidance on how to report expected recoveries for purchased financial assets with credit deterioration, (ii) providing transition relief for troubled debt restructurings, (iii) extending disclosure relief related to accrued interest receivables, (iv) clarifying practical expedients related to financial assets secured by collateral maintenance provisions and (v) reinforcing existing guidance that prohibits organizations from recording negative allowances for available-for-sale debt securities. The amendments are effective for the Company on January 1, 2020. See discussion of ASU 2016-13 above for impact to the consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes" ("ASU 2019-12"). ASU 2019-12 simplifies accounting for income taxes by removing specific technical exceptions in ASC 740 related to the incremental approach for intra-period tax allocation, the methodology for calculating income taxes in an interim period and the recognition for deferred tax liabilities for outside basis differences. ASU 2019-12 also simplifies aspects of the accounting for franchise taxes and enacted changes in tax laws or rates and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill. The amendments are effective for the Company on January 1, 2021 with early adoption permitted. The Company does not expect these amendments to have a material effect on its 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%.

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 years ended December 31, 2019 and 2018, and $766 thousand for the year ended December 31, 2017 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.

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.

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, 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.

This 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. The Company recognized $4.4 million in net losses in 2019 and no net income or loss in 2018 and 2017 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.

Note 4. Securities

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

December 31, 2019	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
US treasury securities	$ 4,988	$ 27	$ —	$ 5,015
US government agencies	22,444	335	—	22,779
Mortgage-backed securities	488,694	15,530	927	503,297
Municipal bonds	8,493	469	8	8,954
Total	$ 524,619	$ 16,361	$ 935	$ 540,045
December 31, 2018				
US treasury securities	$ 4,969	$ —	$ 3	$ 4,966
US government agencies	31,121	48	225	30,944
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

Eleven securities totaling $36.2 million were sold resulting in a net gain of $620 thousand during the year ended December 31, 2019.

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

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, 2019	**Fair Value**	**Unrealized Losses**	**Fair Value**	**Unrealized Losses**	**Fair Value**	**Unrealized Losses**
Mortgage-backed securities	$ 42,835	$ 460	$ 36,518	$ 467	$ 79,353	$ 927
Municipal bonds	—	—	92	8	92	8
Total	$ 42,835	$ 460	$ 36,610	$ 475	$ 79,445	$ 935

	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
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

At December 31, 2019, there were twenty-two residential mortgage-backed securities and one municipal bond in unrealized loss positions for greater than 12 months and ten residential mortgage-backed securities and ten commercial mortgage-backed securities in unrealized loss positions for less than 12 months. Unrealized losses at December 31, 2018 consisted of thirty-one residential mortgage-backed securities and six US government agencies 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.

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, 2019 and 2018 were backed by US government sponsored enterprises (“GSEs”).

The following is a summary of investment securities by maturity:

	December 31, 2019	
	Available-for-sale	
	Amortized cost	Fair value
US treasury securities		
Within one year	$ 4,988	$ 5,015
Total	4,988	5,015
US government agencies		
Within one year	7,008	7,052
One to five years	12,520	12,673
Five to ten years	2,916	3,054
Total	22,444	22,779
Mortgage-backed securities		
One to five years	5,030	5,131
Five to ten years	152,561	159,082
After 10 years	331,103	339,084
Total	488,694	503,297
Municipal bonds		
After 10 years	8,493	8,954
Total	8,493	8,954
Total	$ 524,619	$ 540,045

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

There were no investment securities pledged at December 31, 2019. At December 31, 2018, 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.

Note 5. Loans and Leases Held for Investment and Credit Quality

Loans and leases consist of the following:

	December 31, 2019	December 31, 2018
Commercial & Industrial		
Agriculture	$ 9,344	$ 6,400
Funeral Home & Cemetery	26,388	17,378
Healthcare	45,581	51,082
Independent Pharmacies	106,096	108,783
Registered Investment Advisors	99,191	94,338
Veterinary Industry	51,251	45,604
Other Industries	557,146	295,163
Total	**894,997**	**618,748**
Construction & Development		
Agriculture	44,571	43,454
Funeral Home & Cemetery	9,033	9,874
Healthcare	94,742	81,619
Independent Pharmacies	443	2,149
Registered Investment Advisors	2,404	1,232
Veterinary Industry	22,132	14,094
Other Industries	173,993	96,482
Total	**347,318**	**248,904**
Commercial Real Estate		
Agriculture	50,365	53,085
Funeral Home & Cemetery	113,517	71,344
Healthcare	247,625	188,531
Independent Pharmacies	26,379	20,597
Registered Investment Advisors	7,431	7,905
Veterinary Industry	146,319	136,721
Other Industries	461,157	260,847
Total	**1,052,793**	**739,030**
Commercial Land		
Agriculture	344,732	243,798
Total	**344,732**	**243,798**
Total Loans and Leases [1]	**2,639,840**	**1,850,480**
Net Deferred Costs	11,400	5,960
Discount on SBA 7(a) and USDA Unguaranteed [2]	(3,941)	(13,021)
Loans and Leases, Net of Unearned	**$ 2,647,299**	**$ 1,843,419**

1 Total loans and leases include $700.6 million and $305.4 million of U.S. government guaranteed loans as of December 31, 2019 and December 31, 2018, 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.

Credit Quality Indicators

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. These loans and leases will typically have multiple demonstrated sources of repayment with no significant identifiable risk to collection, exhibit well-qualified management, and have liquid financial statements relative to both direct and indirect obligations.

Quality (2 Rated): These loans and leases are of very high credit quality, with strong, well-documented sources of repayment. These loans and leases exhibit very strong, well defined primary and secondary sources of repayment, with no significant identifiable risk of collection and have internally generated cash flow that more than adequately covers current maturities of long-term debt.

Satisfactory (3 rated): These loans and leases exhibit satisfactory credit risk and have excellent sources of repayment, with no significant identifiable risk of collection. These loans and leases have documented historical cash flow that meets or exceeds required minimum Bank guidelines, or that can be supplemented with verifiable cash flow from other sources. They have adequate secondary sources to liquidate the debt, including combinations of liquidity, liquidation of collateral, or liquidation value to the net worth of the borrower or guarantor.

Acceptable (4 rated): These loans and leases show signs of weakness in either adequate sources of repayment or collateral but have demonstrated mitigating factors that minimize the risk of delinquency or loss. These loans and leases may have unproved, insufficient or marginal primary sources of repayment that appear sufficient to service the debt at this time. Repayment weaknesses may be due to minor operational issues, financial trends, or reliance on projected performance. They may also contain marginal or unproven secondary sources to liquidate the debt, including combinations of liquidation of collateral and liquidation value to the net worth of the borrower or guarantor.

Special mention (5 rated): These loans and leases show signs of weaknesses in either adequate sources of repayment or collateral. These loans and leases may contain underwriting guideline tolerances and/or exceptions with no mitigating factors; and/or instances where adverse economic conditions develop subsequent to origination that do not jeopardize liquidation of the debt but substantially increase the level of risk.

Substandard (6 rated): Loans and leases graded Substandard are inadequately protected by current sound net worth, paying capacity of the obligor, or pledged collateral. Loans and leases classified as Substandard must have a well-defined weakness or weaknesses that jeopardize the liquidation of the debt; are characterized by the distinct possibility that the Bank will sustain some loss if the deficiencies are not corrected. These loans and leases are consistently not meeting the repayment schedule.

Doubtful (7 rated): Loans and leases graded Doubtful have all the weaknesses inherent in those classified as Substandard, plus the added characteristic that the weaknesses make collection or liquidation in full on the basis of currently existing facts, conditions, and values highly questionable and improbable. The ability of the borrower to service the debt is extremely weak, overdue status is constant, the debt has been placed on non-accrual status, and no definite repayment schedule exists. Once the loss position is determined, the amount is charged off.

Loss (8 rated): Loss rated loans and leases are considered uncollectible and of such little value that their continuance as assets is not warranted. This classification does not mean that the asset has absolutely no recovery or salvage value, but rather that it is not practical or desirable to defer writing off this credit even though partial recovery may be affected in the future.

The following tables summarize the risk grades of each category:

December 31, 2019	Risk Grades 1 - 4	Risk Grade 5	Risk Grades 6 - 8	Total
Commercial & Industrial				
Agriculture	$ 8,684	$ 219	$ 441	$ 9,344
Funeral Home & Cemetery	24,446	1,942	—	26,388
Healthcare	36,151	1,429	8,001	45,581
Independent Pharmacies	92,964	6,986	6,146	106,096
Registered Investment Advisors	95,613	2,066	1,512	99,191
Veterinary Industry	46,936	1,718	2,597	51,251
Other Industries	506,070	38,217	12,859	557,146
Total	**810,864**	**52,577**	**31,556**	**894,997**
Construction & Development				
Agriculture	44,571	—	—	44,571
Funeral Home & Cemetery	9,033	—	—	9,033
Healthcare	90,454	3,582	706	94,742
Independent Pharmacies	443	—	—	443
Registered Investment Advisors	2,404	—	—	2,404
Veterinary Industry	22,132	—	—	22,132
Other Industries	162,098	11,895	—	173,993
Total	**331,135**	**15,477**	**706**	**347,318**
Commercial Real Estate				
Agriculture	47,187	1,093	2,085	50,365
Funeral Home & Cemetery	105,753	5,987	1,777	113,517
Healthcare	201,322	16,740	29,563	247,625
Independent Pharmacies	16,385	2,037	7,957	26,379
Registered Investment Advisors	7,431	—	—	7,431
Veterinary Industry	127,893	8,671	9,755	146,319
Other Industries	415,536	37,254	8,367	461,157
Total	**921,507**	**71,782**	**59,504**	**1,052,793**
Commercial Land				
Agriculture	306,046	10,118	28,568	344,732
Total	**306,046**	**10,118**	**28,568**	**344,732**
Total[1]	**$ 2,369,552**	**$ 149,954**	**$ 120,334**	**$ 2,639,840**

December 31, 2018	Risk Grades 1 - 4	Risk Grade 5	Risk Grades 6 - 8	Total
Commercial & Industrial				
Agriculture	$ 6,187	$ 213	$ —	$ 6,400
Funeral Home & Cemetery	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
Funeral Home & Cemetery	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
Funeral Home & Cemetery	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**

1 Total loans and leases include $700.6 million of U.S. government guaranteed loans as of December 31, 2019, segregated by risk grade as follows: Risk Grades 1 – 4 = $561.6 million, Risk Grade 5 = $57.5 million, Risk Grades 6 – 8 = $81.6 million. As of December 31, 2018, total loans and leases include $305.4 million of U.S. government guaranteed loans, 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.

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, 2019	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	$ 269	$ —	$ —	$ —	$ 269	$ 9,075	$ 9,344	$ —
Funeral Home & Cemetery	—	—	—	—	—	26,388	26,388	—
Healthcare	28	—	1,725	4,731	6,484	39,097	45,581	—
Independent Pharmacies	2,725	59	—	3,261	6,045	100,051	106,096	—
Registered Investment Advisors	—	252	1,132	143	1,527	97,664	99,191	—
Veterinary Industry	—	—	504	1,457	1,961	49,290	51,251	—
Other Industries	—	8,366	517	6,395	15,278	541,868	557,146	—
Total	**3,022**	**8,677**	**3,878**	**15,987**	**31,564**	**863,433**	**894,997**	—
Construction & Development								
Agriculture	—	—	—	—	—	44,571	44,571	—
Funeral Home & Cemetery	—	—	—	—	—	9,033	9,033	—
Healthcare	—	—	—	—	—	94,742	94,742	—
Independent Pharmacies	—	—	—	—	—	443	443	—
Registered Investment Advisors	—	—	—	—	—	2,404	2,404	—
Veterinary Industry	—	—	—	—	—	22,132	22,132	—
Other Industries	—	—	—	—	—	173,993	173,993	—
Total	—	—	—	—	—	**347,318**	**347,318**	—
Commercial Real Estate								
Agriculture	2,085	—	—	—	2,085	48,280	50,365	—
Funeral Home & Cemetery	127	2,542	—	1,650	4,319	109,198	113,517	—
Healthcare	—	4,976	28	12,766	17,770	229,855	247,625	—
Independent Pharmacies	—	—	930	5,708	6,638	19,741	26,379	—
Registered Investment Advisors	—	—	—	—	—	7,431	7,431	—
Veterinary Industry	865	586	1,727	2,964	6,142	140,177	146,319	—
Other Industries	—	7,027	—	—	7,027	454,130	461,157	—
Total	**3,077**	**15,131**	**2,685**	**23,088**	**43,981**	**1,008,812**	**1,052,793**	—
Commercial Land								
Agriculture	24,570	965	—	—	25,535	319,197	344,732	—
Total	**24,570**	**965**	**—**	**—**	**25,535**	**319,197**	**344,732**	**—**
Total[1]	**$ 30,669**	**$ 24,773**	**$ 6,563**	**$ 39,075**	**$ 101,080**	**$2,538,760**	**$2,639,840**	**$ —**

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	$ —
Funeral Home & Cemetery	—	—	—	—	—	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	—
Funeral Home & Cemetery	—	—	—	—	—	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	—
Funeral Home & Cemetery	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**	$ —

1 Total loans and leases include $700.6 million of U.S. government guaranteed loans as of December 31, 2019, of which $30.1 million is greater than 90 days past due, $20.7 million is 30-89 days past due and $649.8 million is included in current loans and leases as presented above. As of December 31, 2018, total loans and leases include $305.4 million of U.S. government guaranteed loans, 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.

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 $3.4 million, $2.8 million and $1.1 million for the years ended December 31, 2019, 2018, and 2017, respectively. All nonaccrual loans and leases are included in the held for investment portfolio.

Nonaccrual loans and leases as of December 31, 2019 and December 31, 2018 are as follows:

December 31, 2019	Loan and Lease Balance	Guaranteed Balance	Unguaranteed Exposure
Commercial & Industrial			
Agriculture	$ 269	$ 215	$ 54
Healthcare	6,484	5,516	968
Independent Pharmacies	5,986	5,187	799
Registered Investment Advisors	1,275	956	319
Veterinary Industry	1,961	1,812	149
Other Industries	6,912	5,577	1,335
Total	**22,887**	**19,263**	**3,624**
Commercial Real Estate			
Agriculture	2,085	1,564	521
Funeral Home & Cemetery	1,777	1,293	484
Healthcare	12,794	7,616	5,178
Independent Pharmacies	6,638	5,673	965
Veterinary Industry	5,556	4,602	954
Total	**28,850**	**20,748**	**8,102**
Commercial Land			
Agriculture	24,570	18,388	6,182
Total	24,570	18,388	6,182
Total	**$ 76,307**	**$ 58,399**	**$ 17,908**

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			
Funeral Home & Cemetery	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**

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. Quantitative allowances are calculated based on the loss experience of specific types of loans. Internal and external risk indicators are considered when calculating qualitative allowances. These risk indicators include business type concentrations, vertical maturity, unemployment rates, experience of the bank's servicing staff, and changes in asset quality.

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.

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, 2019					
Beginning Balance	$ 2,042	$ 11,044	$ 14,562	$ 4,786	$ 32,434
Charge offs	—	(1,179)	(2,784)	(327)	(4,290)
Recoveries	—	33	492	5	530
Provision	689	4,684	13,143	1,057	19,573
Ending Balance	$ 2,731	$ 14,582	$ 25,413	$ 5,521	$ 48,247
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

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, 2019	Construction & Development	Commercial Real Estate	Commercial & Industrial	Commercial Land	Total
Allowance for Loan and Lease Losses:					
Loans and leases individually evaluated for impairment	$ 17	$ 4,818	$ 7,676	$ 4,426	$ 16,937
Loans and leases collectively evaluated for impairment	2,714	9,764	17,737	1,095	31,310
Total allowance for loan and lease losses	$ 2,731	$ 14,582	$ 25,413	$ 5,521	$ 48,247
Loans and leases receivable [1]:					
Loans and leases individually evaluated for impairment	$ 719	$ 70,873	$ 34,434	$ 45,621	$ 151,647
Loans and leases collectively evaluated for impairment	346,599	981,920	860,563	299,111	2,488,193
Total loans and leases receivable	$ 347,318	$1,052,793	$ 894,997	$ 344,732	$2,639,840

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

1 Loans and leases receivable includes $700.6 million of U.S. government guaranteed loans as of December 31, 2019, of which $103.8 million are impaired. As of December 31, 2018, loans and leases receivable includes $305.4 million of U.S. government guaranteed loans, of which $72.4 million are considered impaired.

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

December 31, 2019	Recorded Investment	Guaranteed Balance	Unguaranteed Exposure
Commercial & Industrial			
Agriculture	$ 455	$ 289	$ 166
Healthcare	8,023	5,516	2,507
Independent Pharmacies	6,148	5,187	961
Registered Investment Advisors	1,506	956	550
Veterinary Industry	2,645	2,186	459
Other Industries	15,657	8,019	7,638
Total	**34,434**	**22,153**	**12,281**
Construction & Development			
Healthcare	719	530	189
Total	**719**	**530**	**189**
Commercial Real Estate			
Agriculture	2,085	1,564	521
Funeral Home & Cemetery	1,780	1,293	487
Healthcare	29,676	17,025	12,651
Independent Pharmacies	7,964	6,662	1,302
Veterinary Industry	12,648	8,850	3,798
Other Industries	16,720	11,620	5,100
Total	**70,873**	**47,014**	**23,859**
Commercial Land			
Agriculture	45,621	34,121	11,500
Total	**45,621**	**34,121**	**11,500**
Total	**$ 151,647**	**$ 103,818**	**$ 47,829**

December 31, 2018	Recorded Investment	Guaranteed Balance	Unguaranteed Exposure
Commercial & Industrial			
Agriculture	$ 7	$ —	$ 7
Funeral Home & Cemetery	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
Funeral Home & Cemetery	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**

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, 2019				
	Recorded Investment				
	With a Recorded Allowance	With No Recorded Allowance	Total	Unpaid Principal Balance	Related Allowance Recorded
Commercial & Industrial					
Agriculture	$ 449	$ 6	$ 455	$ 465	$ 99
Healthcare	8,023	—	8,023	8,729	1,422
Independent Pharmacies	6,047	101	6,148	7,195	327
Registered Investment Advisors	1,506	—	1,506	1,512	381
Veterinary Industry	2,486	159	2,645	2,935	140
Other Industries	15,459	198	15,657	16,403	5,307
Total	**33,970**	**464**	**34,434**	**37,239**	**7,676**
Construction & Development					
Healthcare	719	—	719	706	17
Total	**719**	**—**	**719**	**706**	**17**
Commercial Real Estate					
Agriculture	2,085	—	2,085	2,085	45
Funeral Home & Cemetery	1,653	127	1,780	1,851	193
Healthcare	27,834	1,842	29,676	29,581	2,765
Independent Pharmacies	7,964	—	7,964	8,248	352
Veterinary Industry	11,952	696	12,648	13,816	1,207
Other Industries	16,001	719	16,720	16,358	256
Total	**67,489**	**3,384**	**70,873**	**71,939**	**4,818**
Commercial Land					
Agriculture	45,621	—	45,621	45,696	4,426
Total	**45,621**	**—**	**45,621**	**45,696**	**4,426**
Total Impaired Loans and Leases	**$ 147,799**	**$ 3,848**	**$ 151,647**	**$ 155,580**	**$ 16,937**

	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	$ —
Funeral Home & Cemetery	—	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
Funeral Home & Cemetery	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**

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, 2019		December 31, 2018		December 31, 2017	
	Average Balance	Interest Income Recognized	Average Balance	Interest Income Recognized	Average Balance	Interest Income Recognized
Commercial & Industrial						
Agriculture	$ 405	$ 2	$ 6	$ —	$ —	$ —
Funeral Home & Cemetery	—	—	6	—	8	—
Healthcare	8,446	113	9,825	95	6,101	53
Independent Pharmacies	6,452	19	8,510	40	6,018	100
Registered Investment Advisors	1,733	18	3,197	38	759	50
Veterinary Industry	2,682	49	2,451	69	2,523	45
Other Industries	15,390	189	3,997	48	—	—
Total	**35,108**	**390**	**27,992**	**290**	**15,409**	**248**
Construction & Development						
Agriculture	—	—	4,951	20	—	—
Healthcare	722	22	—	—	1,240	11
Total	**722**	**22**	**4,951**	**20**	**1,240**	**11**
Commercial Real Estate						
Agriculture	1,773	—	1,738	10	—	—
Funeral Home & Cemetery	1,898	2	3,204	91	2,882	50
Healthcare	27,980	955	19,845	515	4,381	49
Independent Pharmacies	7,276	111	6,021	22	1,708	—
Veterinary Industry	13,126	406	—	—	—	—
Other Industries	13,681	377	16,735	437	14,605	536
Total	**65,734**	**1,851**	**47,543**	**1,075**	**23,576**	**635**
Commercial Land						
Agriculture	37,217	954	22,138	188	113	—
Total	**37,217**	**954**	**22,138**	**188**	**113**	**—**
Total	**$ 138,781**	**$ 3,217**	**$ 102,624**	**$ 1,573**	**$ 40,338**	**$ 894**

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

	December 31, 2019		December 31, 2018		December 31, 2017	
	All Restructurings		All Restructurings		All Restructurings	
	Number of Loans and Leases	Recorded Investment at period end	Number of Loans and Leases	Recorded Investment at period end	Number of Loans and Leases	Recorded Investment at period end
Interest Only						
Construction and Development						
Healthcare	—	$ —	1	$ 634	—	$ —
Commercial & Industrial						
Other Industries	1	348	—	—	—	—
Total Interest Only	**1**	**348**	**1**	**634**	**—**	**—**
Rate Concession						
Commercial Land						
Agriculture	1	87	—	—	—	—
Total Rate Concession	**1**	**87**	**—**	**—**	**—**	**—**
Interest Only & Rate Concession						
Commercial Land						
Agriculture	—	—	4	10,240	—	—
Total Interest Only & Rate Concession	**—**	**—**	**4**	**10,240**	**—**	**—**
Extended Amortization						
Construction and Development						
Agriculture	—	—	1	3,067	—	—
Commercial Land						
Agriculture	1	1,566	1	6	—	—
Total Extended Amortization	**1**	**1,566**	**2**	**3,073**	**—**	**—**
Extended Amortization and Rate Concession						
Construction and Development						
Agriculture	—	—	1	1,872	—	—
Commercial Real Estate						
Agriculture	—	—	1	1,732	—	—
Commercial & Industrial						
Registered Investment Advisors	—	—	1	1,254	—	—
Commercial Land						
Agriculture	4	7,525	—	—	—	—
Total Extended Amortization and Rate Concession	**4**	**7,525**	**3**	**4,858**	**—**	**—**
Payment Deferral and Extended Amortization						
Commercial Land						
Agriculture	—	—	1	608	—	—
Commercial & Industrial						
Independent Pharmacies	—	—	—	—	1	1,102
Total Payment Deferral and Extended Amortization	**—**	**—**	**1**	**608**	**1**	**1,102**
Payment Deferral & Rate Concession						
Commercial Real Estate						
Other Industries	2	3,701	—	—	—	—
Total Payment Deferral & Rate Concession	**2**	**3,701**	**—**	**—**	**—**	**—**
Payment Deferral						
Commercial & Industrial						
Veterinary Industry	—	—	—	—	2	127
Healthcare	1	574	—	—	—	—
Commercial Real Estate						
Healthcare	1	1,841	—	—	—	—
Total Payment Deferral	**2**	**2,415**	**—**	**—**	**2**	**127**
Total	**11**	**$ 15,642**	**11**	**$ 19,413**	**3**	**$ 1,229**

Concessions made to improve a loan and lease's performance have varying degrees of success. During the twelve months ended December 31, 2019, two TDRs that were modified within the twelve months ended December 31, 2019 subsequently defaulted. One TDR default was a commercial real estate healthcare loan that was previously modified for payment deferral and had a recorded investment of $1.8 million at December 31, 2019. The second TDR default was a commercial & industrial healthcare loan that was previously modified for payment deferral and had a recorded investment of $574 thousand at December 31, 2019. 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.

Note 6. Leases

Lessor 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 rented 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

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

	As of December 31,	
	2019	2018
Gross direct finance lease payments receivable	$ 13,959	$ 12,541
Less - unearned interest	(2,562)	(2,635)
Net investment in direct financing leases	$ 11,397	$ 9,906

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

As of December 31, 2019	Amount
2020	$ 3,081
2021	2,969
2022	2,705
2023	2,260
2024	1,635
Thereafter	1,309
Total	$ 13,959

Interest income of $991 thousand, $401 thousand and $55 thousand was recognized in the twelve months ended December 31, 2019, 2018 and 2017, respectively.

Operating Leases

As of December 31, 2019 and 2018, the Company had a net investment of $144.3 million and $148.8 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 $164.3 million and $159.2 million and accumulated depreciation was $20.0 million and $10.4 million as of December 31, 2019 and 2018, respectively. Depreciation expense recognized on these assets for the twelve months ended December 31, 2019, 2018 and 2017 was $9.7 million, $8.2 million and $2.2 million, respectively.

Lease income of $9.4 million, $8.0 million and $1.9 million was recognized in the twelve months ended December 31, 2019, 2018 and 2017, respectively.

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

As of December 31, 2019	Amount
2020	$ 9,005
2021	9,052
2022	9,044
2023	9,075
2024	8,808
Thereafter	40,110
Total	$ 85,094

Lessee Lease Arrangements

The Company has operating leases for real property, land, copiers and other equipment. These leases have remaining lease terms of 1 year to 27 years, some of which include options to extend the leases for up to 20 years, and some of which include options to terminate the leases. The Company has concluded that it is reasonably certain it will exercise the options to extend for only one lease, which was therefore recognized as part of the ROU asset and lease liability.

The Company has a finance lease for fitness equipment, and it has a remaining lease term of approximately 2.92 years. There are no options to extend or terminate this lease.

The components of lease expense are as follows:

	December 31, 2019	December 31, 2018
Operating lease cost	$ 186	$ 669
Short-term lease cost	25	528
Finance lease cost:		
Amortization of right-of-use assets	1	4
Interest expense on lease liabilities	—	—
Sublease income	(9)	(35)
Total net lease cost	$ 203	$ 1,166

Supplemental disclosure for the consolidated balance sheet related to finance leases is as follows:

	December 31, 2019
Finance lease right-of-use asset	$ 13
Finance lease liability	14

The weighted average remaining lease term and weighted average discount rate for leases are as follows:

	As of December 31, 2019
Weighted average remaining lease term (years)	
Operating leases	13.41
Finance lease	2.92
Weighted average discount rate	
Operating leases	3.12%
Finance lease	3.10%

A maturity analysis of operating and finance lease liabilities is as follows:

As of December 31, 2019	Operating Leases	Finance Leases
2020	$ 670	$ 5
2021	459	5
2022	434	5
2023	306	—
2024	194	—
Thereafter	1,245	—
Total lease payments	3,308	15
Less: imputed interest	(689)	(1)
Total lease liabilities	$ 2,619	$ 14

Lease disclosures for the years ended December 31, 2018 and 2017 prior to the adoption of ASC 842 are as follows:

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:

As of December 31, 2018	Amount
2019	$ 1,068
2020	512
2021	316
2022	275
2023	144
Thereafter	107
Total	$ 2,422

Lease payments for renewal options are not included in the future minimum lease table as of December 31, 2018.

The Company's total rent expense related to the aforementioned leases for 2018 and 2017 was $1.2 million and $848 thousand, respectively.

Note 7. Servicing Assets

Loans serviced for others are not included in the accompanying consolidated balance sheet. The unpaid principal balances of loans serviced for others requiring recognition of a servicing asset were $2.26 billion, $2.63 billion and $2.44 billion at December 31, 2019, 2018 and 2017, respectively. The unpaid principal balance for all loans serviced for others was $2.97 billion, $3.22 billion and $2.85 billion at December 31, 2019, 2018 and 2017, respectively.

The following summarizes the activity pertaining to servicing rights:

	2019	2018
Balance at beginning of period	$ 47,641	$ 52,298
Additions, net	4,305	16,568
Fair value changes:		
Due to changes in valuation inputs or assumptions	(3,127)	(7,238)
Decay due to increases in principal paydowns or runoff	(13,454)	(13,987)
Balance at end of period	$ 35,365	$ 47,641

The fair value of servicing rights was determined using a weighted average discount rate of 14.1% on December 31, 2019 and 14.5% on December 31, 2018. The fair value of servicing rights was determined using a weighted average prepayment speed of 16.4% on December 31, 2019 and 12.0% on December 31, 2018. Changes to fair value are reported in loan servicing asset 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, 2019 and 2018 are as follows:

	2019	2018
Buildings	$ 54,671	$ 31,880
Land improvements	5,180	3,592
Furniture and equipment	17,878	10,878
Computers and software	5,134	665
Leasehold improvements	8,078	7,757
Land	8,650	8,650
Transportation	60,947	30,867
Solar panels	164,295	159,161
Deposits on fixed assets	596	36,180
Premises and equipment, total	325,429	289,630
Less accumulated depreciation	(46,330)	(27,106)
Premises and equipment, net of depreciation	$ 279,099	$ 262,524

Deposits on fixed assets at December 31, 2019 consist primarily of construction costs related to building reconfiguration at the Company's headquarters, campus signage and tradeshow equipment. The decrease in deposits on fixed assets and the increases in the fixed asset categories for premises, equipment and transportation from December 31, 2018 to 2019 is primarily related to the completion of the Company's third building and fitness facility at its headquarters campus and new airplane purchase. Depreciation expense for the years ended December 31, 2019, 2018 and 2017 amounted to $19.3 million, $16.0 million and $9.6 million, respectively.

Note 9. Deposits

The types of deposits at December 31, 2019 and 2018 are:

	2019	2018
Noninterest-bearing deposits	$ 54,107	$ 53,993
Interest-bearing deposits:		
Interest-bearing checking	—	2,099
Money market	86,754	89,329
Savings	1,101,065	886,718
Time deposits	2,987,196	2,117,444
Total	4,175,015	3,095,590
Total deposits	$ 4,229,122	$ 3,149,583

The aggregate amount of time deposits in denominations of $250 thousand or more at December 31, 2019 and 2018 was approximately $554.4 million and $378.0 million, respectively. At December 31, 2019 the scheduled maturities of total time deposits are as follows:

Year	Amount
2020	$ 2,085,287
2021	507,417
2022	146,044
2023	110,121
2024	83,314
Thereafter	55,013
Total	$ 2,987,196

There were no pledged certificates of deposit as of December 31, 2019 and 2018.

Note 10. Borrowings

Total outstanding borrowings consisted of the following:

	December 31, 2019	December 31, 2018
Borrowings		
In 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 accrued at prime plus 1% with monthly principal and interest payments over a term of 60 months. The maturity date was October 5, 2019. The pledged collateral was classified in other assets with a fair value of $1.4 million at December 31, 2018. The remaining loan with an outstanding balance of $1.3 million was repurchased by the Company on November 7, 2019.	$ —	$ 1,441
In 2019, the Company renewed a revolving line of credit issued in 2017. The line of credit is unsecured and accrues interest at 30-day LIBOR plus 1.15% for a term of 13 months. Payments are interest only with all principal and accrued interest due on October 20, 2020. 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 $50 million of available credit remaining at December 31, 2019.	—	—
In October 2017, the Company entered into a financing 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. As of January 1, 2019, this borrowing was revised in accordance with ASU 2016-02.	14	16
Total borrowings	$ 14	$ 1,457

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, 2019 and 2018. 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, 2019 or 2018.

The Company has entered into a repurchase agreement with a third party for up to $5.0 million as of December 31, 2019 and 2018. 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, 2019 and 2018.

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, 2019 and 2018, there was $1.14 billion and $849.1 million, respectively, of potential borrowing capacity available under this agreement. There is no collateral pledged and no advances outstanding as of December 31, 2019 or 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 $526.8 million and $395.2 million as of December 31, 2019 and 2018, respectively. At December 31, 2019 and 2018, the Company had approximately $294.5 million and $218.0 million, respectively, in borrowing capacity available under these arrangements with no outstanding balance as of December 31, 2019 or 2018.

Note 11. Income Taxes

The components of income tax expense for the years ended December 31 are as follows:

	2019	2018	2017
Current income tax expense (benefit):			
Federal	$ 1,339	$ 585	$ (15,424)
State	2,625	(51)	1,162
Total current tax expense (benefit)	3,964	534	(14,262)
Deferred income tax expense (benefit):			
Federal	3,031	(7,868)	8,389
State	(1,564)	1,932	3,628
Total deferred tax expense (benefit)	1,467	(5,936)	12,017
Income tax expense (benefit), as reported	$ 5,431	$ (5,402)	$ (2,245)

Reported income tax expense (benefit) differed from the amounts computed by applying the U.S. federal statutory income tax rate of 21% in 2019 and 2018 and 35% in 2017 to income before income taxes as follows:

	2019	2018	2017
Income tax expense computed at the statutory rate	$ 4,928	$ 9,670	$ 34,389
State income tax, net of federal benefit	838	1,485	3,114
Stock-based compensation expense	443	268	(380)
Change in U.S. tax rate	—	244	(18,921)
Decrease in taxes due to investment tax credit	(1,561)	(17,846)	(20,509)
Other	783	777	62
Total income tax expense (benefit)	$ 5,431	$ (5,402)	$ (2,245)

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.

Components of deferred tax assets and liabilities are as follows:

	2019	2018
Deferred tax assets:		
Tax credit carryforwards	$ 37,619	$ 39,560
Allowance for loan and lease losses	11,579	7,784
Net operating loss carryforwards	83	5,046
Mark to market on loans held for sale	10,501	1,780
Stock-based compensation expense	4,918	3,004
Goodwill and intangibles	720	720
Accrued expenses	1,372	430
Net unrealized losses on securities available for sale	—	529
Operating lease liabilities	629	—
Other	977	1,573
Total deferred tax assets	68,398	60,426
Deferred tax liabilities:		
Investment in joint venture	15,538	16,596
Unguaranteed loan discount	13,076	8,535
Premises and equipment	45,291	40,032
Deferred loan fees and costs, net	1,417	987
Net unrealized gains on securities available for sale	3,702	—
Operating lease right-of-use assets	584	—
Other	538	326
Total deferred tax liabilities	80,146	66,476
Net deferred tax liability	$ 11,748	$ 6,050

The Company has recorded a deferred tax asset of $37.6 million related to federal tax credit carryforwards which will begin to expire in 2037.

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, 2019, 2018 and 2017. 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.

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. 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.

Equity security investment with a non-readily determinable fair value: The following equity security investment is measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer. When an observable price change in an orderly transaction occurs, the investment is classified as nonrecurring Level 1 within the valuation hierarchy.

Recurring Fair Value

The tables below present the recorded amount of assets and liabilities measured at fair value on a recurring basis.

December 31, 2019	Total	Level 1	Level 2	Level 3
Investment securities available-for-sale				
US treasury securities	$ 5,015	$ —	$ 5,015	$ —
US government agencies	22,779	—	22,779	—
Mortgage-backed securities	503,297	—	503,297	—
Municipal bonds[1]	8,954	—	8,862	92
Servicing assets[2]	35,365	—	—	35,365
Mutual fund	2,206	—	2,206	—
Equity warrant assets[3]	570	—	—	570
Total assets at fair value	$ 578,186	$ —	$ 542,159	$ 36,027

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	—
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

1 During the year ended December 31, 2019, the Company sold $900 thousand of a municipal bond to a third party and recorded a fair value adjustment loss of $8 thousand. 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 loss of $1 thousand.

2 See Note 7 for a rollforward of recurring Level 3 fair values for servicing assets.

3 During the years ended December 31, 2019 and 2018, the Company recorded net losses on derivative instruments of $53 thousand and $24 thousand, respectively.

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, 2019	Total	Level 1	Level 2	Level 3
Impaired loans	$ 3,909	$ —	$ —	$ 3,909
Foreclosed assets	5,612	—	—	5,612
Equity security investment with a non-readily determinable fair value	8,738	8,738	—	—
Total assets at fair value	$ 18,259	$ 8,738	$ —	$ 9,521

December 31, 2018	Total	Level 1	Level 2	Level 3
Impaired loans	$ 4,130	$ —	$ —	$ 4,130
Foreclosed assets	1,094	—	—	1,094
Total assets at fair value	$ 5,224	$ —	$ —	$ 5,224

Level 3 Analysis

For Level 3 assets and liabilities measured at fair value on a non-recurring basis as of December 31, 2019 and December 31, 2018 the significant unobservable inputs used in the fair value measurements were as follows:

December 31, 2019

Level 3 Assets with Significant Unobservable Inputs	Fair Value	Valuation Technique	Significant Unobservable Inputs	Range
Municipal bond	$ 92	Discounted expected cash flows	Discount rate Prepayment speed	4.55% 5.00%
Impaired loans	$ 3,909	Discounted appraisals	Appraisal adjustments (1)	10% to 57%
Foreclosed assets	$ 5,612	Discounted appraisals	Appraisal adjustments (1)	10% to 37%
Equity warrant assets	$ 570	Black-Scholes option pricing model	Volatility Risk-free interest rate Marketability discount Remaining life	21-75% 1.90% 20% 8 - 10 years

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 Prepayment speed	5.14% 5.00%
Impaired loans	$ 4,130	Discounted appraisals	Appraisal adjustments (1)	8% to 48%
Foreclosed assets	$ 1,094	Discounted appraisals	Appraisal adjustments (1)	9% to 37%
Equity warrant assets	$ 527	Black-Scholes option pricing model	Volatility Risk-free interest rate Marketability discount Remaining life	20.40% 2.69% 20.00% 9 - 10 years

(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.

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

December 31, 2019	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	$ 126,752	$ 126,752	$ —	$ —	$ 126,752
Federal funds sold	96,787	96,787	—	—	96,787
Certificates of deposit with other banks	7,250	7,568	—	—	7,568
Investment securities, available-for-sale	540,045	—	539,953	92	540,045
Loans held for sale	966,447	—	—	1,020,567	1,020,567
Loans and leases, net of allowance for loan and lease losses	2,599,052	—	—	2,659,681	2,659,681
Servicing assets	35,365	—	—	35,365	35,365
Mutual fund	2,206	—	2,206	—	2,206
Equity warrant assets	570	—	—	570	570
Financial liabilities					
Deposits	4,229,122	—	4,213,657	—	4,213,657
Borrowings	14	—	—	14	14

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	687,393	—	—	695,154	695,154
Loans and leases, net of allowance for loan and lease losses	1,810,985	—	—	1,807,528	1,807,528
Servicing assets	47,641	—	—	47,641	47,641
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
Borrowings	1,457	—	—	1,457	1,457

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.

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, 2019	December 31, 2018
Commitments to extend credit	$ 1,834,449	$ 1,435,024
Standby letters of credit	25,532	2,150
Airplane purchase agreement commitments	—	10,450
Total unfunded off-balance sheet credit risk	$ 1,859,981	$ 1,447,624

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.

As of December 31, 2019 and 2018, the Company had commitments for on-balance sheet instruments in the amount of $16.9 million and $2.8 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 twenty-four relationships that have a retained unguaranteed exposure of $259.4 million of which $178.8 million of the unguaranteed exposure has been disbursed.

Additionally, the Company has future minimum lease payments receivable under non-cancelable operating leases totaling $85.1 million, of which $61.1 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.

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, 2019, 2018, and 2017 amounted to $3.0 million, $2.7 million and $2.5 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 $77 thousand, $60 thousand and $79 thousand for fiscal years 2019, 2018 and 2017, respectively.

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. Forfeitures are recognized as they occur.

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, 2019, 2018, and 2017 the Company recognized $1.6 million, $1.7 million, and $1.7 million in compensation expense for stock options, respectively.

Stock option activity under the Plan during the year ended December 31, 2019 is summarized below.

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at December 31, 2018	2,656,855	$ 11.27		
Exercised	(75,088)	7.51		
Forfeited	(66,040)	9.68		
Outstanding at December 31, 2019	2,515,727	$ 11.42	5.04 years	$ 19,115,278
Exercisable at December 31, 2019	1,030,331	$ 11.03	4.92 years	$ 8,232,263

The following is a summary of non-vested stock option activity for the Company for the years ended December 31, 2019, 2018, and 2017.

	Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2016	3,016,100	$ 4.78
Vested	(340,362)	4.36
Forfeited	(310,739)	6.25
Non-vested at December 31, 2017	2,364,999	4.65
Vested	(308,373)	7.51
Forfeited	(216,796)	5.90
Non-vested at December 31, 2018	1,839,830	4.60
Vested	(288,394)	4.20
Forfeited	(66,040)	3.50
Non-vested at December 31, 2019	1,485,396	$ 4.73

The total intrinsic value of options exercised during the years ended December 31, 2019, 2018, and 2017 was $785 thousand, $3.5 million, and $1.5 million, respectively.

At December 31, 2019, unrecognized compensation costs relating to stock options amounted to $4.2 million which will be recognized over a weighted average period of 2.59 years.

There were no options granted in 2019, 2018 or 2017.

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, 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. During 2019, 164,828 restricted stock units were granted to eligible employees and outside directors at a weighted average grant date fair value of $17.00, and 500,000 restricted stock units had market price conditions or non-market-related performance criteria restrictions at a weighted average grant date fair value of $8.81.

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, 2019.

	Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2018	388,187	$ 23.85
Granted	164,828	17.00
Vested	(84,608)	23.23
Forfeited	(11,006)	22.04
Non-vested at December 31, 2019	457,401	$ 21.54

During 2018 and 2017, the Company granted 355,150 and 106,527 RSUs, respectively. The weighted average grant date fair value for RSUs granted in 2018 and 2017 were $25.17 and $23.71, respectively.

For the years ended December 31, 2019, 2018, and 2017 the Company recognized $2.2 million, $2.6 million, and $741 thousand in compensation expense for RSUs, respectively.

At December 31, 2019, unrecognized compensation costs relating to RSUs amounted to $8.7 million which will be recognized over a weighted average period of 4.72 years.

The following is a summary of non-vested Market RSU stock activity for the Company for the year ended December 31, 2019.

	Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2018	2,709,202	$ 9.87
Granted	500,000	8.81
Forfeited	(54,878)	9.21
Non-vested at December 31, 2019	3,154,324	$ 8.44 [1]

[1] Adjusted for modification in 2019, as described below.

During 2018 and 2017, the Company granted 485,000 and 233,791 Market RSUs with a weighted average grant date fair value of $7.93, as modified, and $13.94, 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 500,000 Market RSUs granted on February 11, 2019, the share price simulation was based on the Cox, Ross & Rubinstein option pricing methodology for a period of 10.0 years. The implied term of the restricted stock ranges from 4.5 to 5.8 years. The Monte Carlo Simulation used various assumptions that included a risk free rate of return of 2.62%, expected volatility of 37.6% and a dividend yield of 0.78%.

On February 11, 2019, 75,000 Market RSUs granted on May 14, 2018 to one employee were modified to lengthen the vesting term from 7 to 10 years and change the target stock price from $48.00 to a range of $35.00 to $48.00 per share for at least twenty (20) consecutive trading days. Additionally, 410,000 Market RSUs granted on August 10, 2018, to eleven employees were modified to lengthen the vesting term from 7 to 10 years and change the amount of Market RSUs that vest at various target stock prices to 20% per tier. As a result of the modification, the Company recognized additional compensation expense of $543 thousand for the year ended December 31, 2019.

For the years ended December 31, 2019, 2018 and 2017, the Company recognized $7.9 million, $4.9 million, and $5.0 million respectively, in compensation expense for Market RSUs.

At December 31, 2019, unrecognized compensation costs relating to Market RSUs amounted to $14.8 million which will be recognized over a weighted average period of 3.02 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 $7.2 million, $632 thousand, and $3.2 million for the years ended December 31, 2019, 2018, and 2017, respectively.

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 increases 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, 2019, 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.

Capital amounts and ratios as of December 31, 2019 and 2018, are presented in the following table.

	Actual		Minimum Capital Requirement		Minimum To Be Well Capitalized	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
Consolidated - December 31, 2019						
Common Equity Tier 1						
(to Risk-Weighted Assets)	$ 499,513	14.85%	$ 151,365	4.50%	N/A	N/A
Total Capital						
(to Risk-Weighted Assets)	$ 541,635	16.10%	$ 269,093	8.00%	N/A	N/A
Tier 1 Capital						
(to Risk-Weighted Assets)	$ 499,513	14.85%	$ 201,820	6.00%	N/A	N/A
Tier 1 Capital						
(to Average Assets)	$ 499,513	10.65%	$ 187,582	4.00%	N/A	N/A
Bank - December 31, 2019						
Common Equity Tier 1						
(to Risk-Weighted Assets)	$ 451,807	13.61%	$ 149,370	4.50%	$ 215,757	6.50%
Total Capital						
(to Risk-Weighted Assets)	$ 493,382	14.86%	$ 265,547	8.00%	$ 331,934	10.00%
Tier 1 Capital						
(to Risk-Weighted Assets)	$ 451,807	13.61%	$ 199,161	6.00%	$ 265,547	8.00%
Tier 1 Capital						
(to Average Assets)	$ 451,807	9.68%	$ 186,627	4.00%	$ 233,283	5.00%
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%

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, 2019 and 2018, other than those disclosed as secured borrowings in Note 10.

Deposits from related parties held by the Company at December 31, 2019 and 2018 amounted to $46.9 million and $31.4 million, respectively.

During the years ended December 31, 2019 and 2018, the Company invested $1.1 million and $675 thousand, respectively, in Plexus Fund II, III, and IV-C, L.P ("Plexus"), which is included in other assets in the consolidated balance sheets at December 31, 2019 and 2018 with a balance of $2.8 million and $3.5 million, respectively. A member of the Company's board of directors is also a principal of Plexus Capital, the administrator of Plexus. Plexus is accounted for as an equity security investment.

During the year ended December 31, 2019, the Company invested $156 thousand in DefenseStorm, Inc. ("DefenseStorm"), which is included in other assets in the consolidated balance sheets with a balance of $2.1 million and $2.0 million at December 31, 2019 and 2018, 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, 2019, the Company held approximately 5.8% of DefenseStorm on a fully diluted basis in the form of both voting and non-voting common equity, including approximately 3.2% voting control. Directors and officers of the Company and their affiliates collectively own approximately 5.8% of DefenseStorm on a fully diluted basis as of December 31, 2019, including approximately 1.0% voting control. During 2018 and 2017, the Company expensed $71 thousand and $405 thousand for cyber security event monitoring services. No payments were made for the year ended December 31, 2019.

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 $4.5 million and $6.8 million as of December 31, 2019 and 2018, respectively. At December 31, 2019, the Company holds approximately 16.1% of Finxact on a fully diluted basis in the form of both voting and non-voting equity, including approximately 14.3% 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 6.4% of Finxact on a fully diluted basis in the form of non-voting equity at December 31, 2019. During 2019, the Company expensed $24 thousand for core processor services. No payments were made for the years ended December 31, 2018 and 2017.

During the year ended December 31, 2018, the Company invested $628 thousand in Payrailz, LLC ("Payrailz"), an entity that provides digital payment services and solutions to the financial services industry, which is included in other assets in the consolidated balance sheet with a balance of $0 and $1.0 million at December 31, 2019 and 2018, respectively. At December 31, 2019, the Company holds approximately 14.7% 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 3.9% of Payrailz on a fully diluted basis in the form of voting equity at December 31, 2019. During 2019 and 2018, the Company expensed $250 thousand and $4 thousand for digital payment services. No payments were made for the year ended December 31, 2017.

The Company's digital banking joint venture between Live Oak Banking Company and First Data Corporation, Apiture, which is included in other assets in the consolidated balance sheet had a balance of $64.7 million and $69.1 million at December 31, 2019 and 2018, respectively. See Note 3. Unconsolidated Joint Venture for further discussion. During the years ended December 31, 2019, 2018 and 2017, the Company expensed $524 thousand, $5.5 million and $304 thousand, respectively, for professional services. During 2019 and 2018, the Company recognized income of $446 thousand and $255 thousand, respectively for shared services and rent. The Company recognized no income from Apiture during the year ended December 31, 2017.

During the year ended December 31, 2019, the Company committed to invest $1.8 million in Canapi Ventures Fund, L.P. ("The Fund"), an investment fund which centers around early to growth stage financial technology companies. The Fund is included in other assets in the consolidated balance sheet, with $257 thousand of the commitment invested during 2019. The Fund is accounted for as an equity method investment.

During the year ended December 31, 2019, the Company committed to invest $15.2 million in Canapi Ventures SBIC Fund, L.P. (“The SBIC Fund”), an investment fund which centers around early to growth stage financial technology companies. The SBIC Fund is included in other assets in the consolidated balance sheet, with $461 thousand of the commitment invested during 2019. The SBIC Fund is accounted for as an equity method investment.

Note 17. Significant Equity Method Investments

In accordance with Rules 3-09 and 4-08(g) of Regulation S-X, the Company must assess whether any of its equity method investments are significant equity method investments. In evaluating the significance of these investments, the Company performed the income test, the investment test and the asset test described in S-X 3-05 and S-X 1-02(w). Rule 3-09 of Regulation S-X requires separate audited financial statements of an equity method investee in an annual report if either the income or investment test exceeds 20%. As of December 31, 2019, and 2018, none of our investments was considered a significant subsidiary under Rule 3-09. Rule 4-08(g) of Regulation S-X requires summarized financial information in an annual report if any of the three tests exceeds 10%. Under the income test, the Company’s proportionate share of its equity method investees' aggregated net losses exceeded the applicable threshold of 10% and is accordingly required to provide summarized financial information for these investees for all periods presented in this Form 10-K.

The following table provides summarized balance sheet information for the Company’s equity method investments as of December 31, 2019 and 2018. The Company’s equity method investments are included in the other assets line on the consolidated balances sheet and are largely concentrated in new or emerging financial service technology companies.

	As of December 31,	
Balance sheet data	**2019**	**2018**
Current assets	$ 56,710	$ 63,048
Noncurrent assets	162,304	156,858
Total assets	$ 219,014	$ 219,906
Current liabilities	$ 19,910	$ 12,229
Noncurrent liabilities	683	432
Total liabilities	20,593	12,661
Equity interests	198,421	207,245
Total liabilities and equity	$ 219,014	$ 219,906

The following table provides summarized income statement information for the Company’s equity method investments for the years ended December 31, 2019, 2018, and 2017.

	Years ended December 31,		
Summary of operations	**2019**	**2018**	**2017**
Total revenues	$ 56,472	$ 54,567	$ 13,855
Net loss	(25,778)	(10,582)	(4,614)

Note 18. 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

	As of December 31, 2019	As of December 31, 2018
Assets		
Cash and cash equivalents	$ 13,585	$ 14,780
Investment in subsidiaries	499,335	452,426
Other assets	21,182	28,094
Total assets	$ 534,102	$ 495,300
Liabilities and Shareholders' Equity		
Borrowings	$ —	$ 1,441
Other liabilities	1,716	299
Total liabilities	1,716	1,740
Shareholders' equity:		
Common stock	340,397	328,113
Retained earnings	180,265	167,124
Accumulated other comprehensive income (loss)	11,724	(1,677)
Total equity	532,386	493,560
Total liabilities & shareholders' equity	$ 534,102	$ 495,300

Statements of Income

	Years ended December 31, 2019	2018	2017
Interest income	$ 236	$ 46	$ 5
Interest expense	—	129	1,210
Net interest loss	236	(83)	(1,205)
Noninterest income:			
Other noninterest income	140	562	2,114
Total noninterest income	140	562	2,114
Noninterest expense:			
Salaries and employee benefits	12,408	10,117	10,531
Professional services expense	825	853	1,192
Renewable energy tax credit investment impairment	602	—	690
Impairment expense on goodwill and other intangibles, net	—	2,680	(4,350)
Other expense	999	1,844	2,588
Total noninterest expense	14,834	15,494	10,651
Net loss before equity in undistributed income of subsidiaries	(14,458)	(15,015)	(9,742)
Income tax benefit	(27)	(3,658)	(320)
Net loss	(14,431)	(11,357)	(9,422)
Equity in undistributed income of subsidiaries in excess of dividends from subsidiaries	32,465	62,805	109,921
Net income attributable to Live Oak Bancshares, Inc.	$ 18,034	$ 51,448	$ 100,499

Statements of Cash Flows

	Years ended December 31, 2019	2018	2017
Cash flows from operating activities			
Net income	$ 18,034	$ 51,448	$ 100,499
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	(32,465)	(62,805)	(109,921)
Depreciation	—	199	1,188
Impairment expense on goodwill and other intangibles, net	—	2,680	(4,350)
Deferred income tax	(790)	(6,633)	(5,376)
Renewable energy tax credit investment impairment	602	—	690
Stock option based compensation expense	1,723	1,713	1,786
Restricted stock expense	10,025	7,463	5,717
Business combination contingent consideration fair value adjustments	—	(260)	1,950
Net change in other assets	7,100	4,396	11,649
Net change in other liabilities	1,417	142	(820)
Net cash provided by (used in) operating activities	5,646	(1,657)	3,012
Cash flows from investing activities			
Capital investment in subsidiaries	(1,109)	(9,325)	(55,240)
Net change in advances to subsidiaries	—	—	640
Business combination, net of cash acquired	—	—	(7,696)
Purchases of premises and equipment	—	(20)	(4,864)
Net cash used in investing activities	(1,109)	(9,345)	(67,160)
Cash flows from financing activities			
Proceeds from borrowings	—	—	25,000
Repayments of borrowings	(1,441)	(25,123)	(26,279)
Stock option exercises	508	1,626	1,026
Employee stock purchase program	437	342	445
Withholding cash issued in lieu of restricted stock	(409)	(756)	(4,891)
Sale of common stock, net	—	—	113,096
Shareholder dividend distributions	(4,827)	(4,809)	(3,776)
Net cash (used in) provided by financing activities	(5,732)	(28,720)	104,621
Net change in cash and cash equivalents	(1,195)	(39,722)	40,473
Cash and cash equivalents at beginning of year	14,780	54,502	14,029
Cash and cash equivalents at end of year	$ 13,585	$ 14,780	$ 54,502

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, 2019, 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, 2019, 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, 2019.

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, 2019. 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 2020 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 "Delinquent Section 16(a) Reports" 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 2019 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 3: 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 are filed as part of this report.

Reports of Independent Registered Public Accounting Firm

Consolidated Balance Sheets as of December 31, 2019 and 2018

Consolidated Statements of Income for the Years Ended December 31, 2019, 2018 and 2017

Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2019, 2018 and 2017

Consolidated Statements of Changes in Shareholders' Equity for the Years Ended December 31, 2019, 2018 and 2017

Consolidated Statements of Cash Flows for the Years Ended December 31, 2019, 2018 and 2017

Notes to Consolidated Financial Statements

(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 or furnished as a part of this Annual Report on Form 10-K.

Exhibit No.	Description of Exhibit
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)
4.3	Description of Securities Registered under Section 12 of the Exchange Act*
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) #
10.2.1	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) #
10.2.2	Amendment to 2008 Nonstatutory Stock Option Plan effective July 1, 2019 (incorporated by reference to Exhibit 10.2 of the quarterly report on Form 10-Q, filed on August 6, 2019) #
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. (incorporated by reference to Exhibit 10.5.3 of the 2018 10-K)
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	Amended Performance RSU Award Agreement with Stock Price Condition for Susan N. Janson (incorporated by reference to Exhibit 10.6.8 of the 2018 10-K) #
10.6.8	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) #
10.6.9	RSU Award Agreement for M. Huntley Garriott (incorporated by reference to Exhibit 10.6.10 of the 2018 10-K) #
10.6.10	Performance RSU Award Agreement with Stock Price Condition for M. Huntley Garriott (incorporated by reference to Exhibit 10.6.11 of the 2018 10-K) #
10.6.11	Form of 2019 RSU Award Agreement for non-employee directors (incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q, filed on August 6, 2019) #
10.6.12	Form of RSU Award Agreement for certain executive officers (incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on February 14, 2020) #
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.INS	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document)
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

* 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.

Item 16. FORM 10-K SUMMARY

Registrants may voluntarily include a summary of information required by Form 10-K under this Item 16. We have elected not to include such summary information.

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, 2020

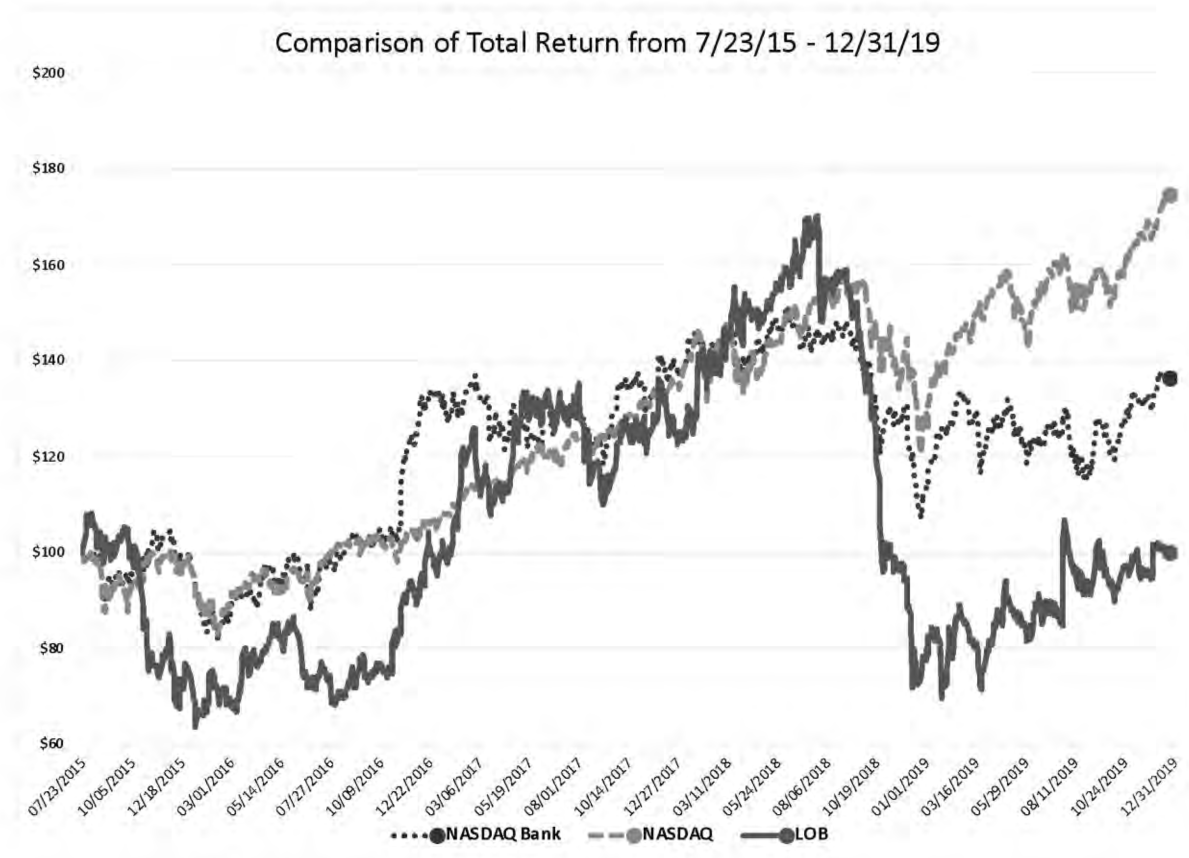
By: */s/* James S. Mahan III
James S. Mahan III
Chairman and Chief Executive Officer
(Principal Executive Officer)

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, 2020
/s/ S. Brett Caines S. Brett Caines Chief Financial Officer (Principal Financial Officer)	February 27, 2020
/s/ J. Wesley Sutherland J. Wesley Sutherland Chief Accounting Officer (Principal Accounting Officer)	February 27, 2020
/s/ William L. Williams III William L. Williams III Vice Chairman of the Board of Directors	February 27, 2020
/s/ William H. Cameron William H. Cameron Director	February 27, 2020
/s/ Diane B. Glossman Diane B. Glossman Director	February 27, 2020
/s/ Glen F. Hoffsis Glen F. Hoffsis Director	February 27, 2020
/s/ Howard K. Landis Howard K. Landis Director	February 27, 2020
/s/ Miltom E. Petty Miltom E. Petty Director	February 27, 2020
/s/ David G. Salyers David G. Salyers Director	February 27, 2020
/s/ Neil L. Underwood Neil L. Underwood Director	February 27, 2020

Stock Performance Graph

Our voting common stock is listed for trading on the NASDAQ Global Select Market under the symbol “LOB.” The Stock Performance Graph set forth below compares the cumulative total stockholder return on our common stock for the period from July 23, 2015, through December 31, 2019, with the cumulative total return of the Nasdaq Composite Index and the Nasdaq Bank Index over the same period. The comparison assumes $100 was invested on July 23, 2015, in the common stock of Live Oak Bancshares, Inc., in the Nasdaq Composite Index and in the Nasdaq Bank Index and assumes reinvestment of dividends, if any.



CORPORATE HEADQUARTERS

Live Oak Bancshares, Inc.
1741 Tiburon Drive
Wilmington, NC 28403

STOCK INFORMATION

The voting common stock of Live Oak Bancshares, Inc. is traded on the NASDAQ Global Select Market under the symbol "LOB".

TRANSFER AGENT

Broadridge Corporate Issuer Solutions, Inc.
1717 Arch Street, Suite 1300
Philadelphia, PA 19103

INDEPENDENT AUDITORS

Dixon Hughes Goodman LLP

EXECUTIVE OFFICERS

James S. Mahan III - Chairman and Chief Executive Officer
Neil L. Underwood - President and Director
M. Huntley Garriott, Jr. - President, Live Oak Banking Company
William L. Williams III - Executive Vice President and Vice Chairman
S. Brett Caines - Chief Financial Officer
Susan N. Janson – Chief Risk Officer, Live Oak Banking Company
Gregory W. Seward - General Counsel
Steven J. Smits - Chief Credit Officer
J. Wesley Sutherland - Chief Accounting Officer

DIRECTORS

William H. Cameron
Diane B. Glossman
Glen F. Hoffsis
Howard K. Landis III
Miltom E. Petty
David G. Salyers

LIVE OAK®
BANCSHARES

1741 TIBURON DRIVE I WILMINGTON, NC 28403 I LIVEOAKBANK.COM

IMPORTANT NOTE REGARDING FORWARD-LOOKING STATEMENTS: This report contains forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995. These statements generally relate to the Company's financial condition, results of operations, plans, objectives, future performance or business. They usually can be identified by the use of forward-looking terminology, such as "believes," "expects," or "are expected to," "plans," "projects," "goals," "estimates," "may," "should," "could," "would," "intends to," "outlook" or "anticipates," or variations of these and similar words. Forward-looking statements are based on current management expectations and, by their nature, are subject to risks and uncertainties. Actual results may differ materially from those contained in the forward-looking statements. Factors which may cause actual results to differ materially from those contained in such forward-looking statements include those identified in the company's most recent Form 10-K and subsequent SEC filings.