

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 10-Q**

- Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**  
For the quarterly period ended **March 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**  
(State or other jurisdiction of incorporation or organization)

**26-4596286**  
(I.R.S. Employer Identification No.)

**1741 Tiburon Drive**  
**Wilmington, North Carolina**  
(Address of principal executive offices)

**28403**  
(Zip Code)

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See 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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
<b>Voting Common Stock, no par value per share</b>	<b>LOB</b>	<b>The NASDAQ Stock Market LLC</b>

**APPLICABLE ONLY TO CORPORATE ISSUERS:**

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

As of May 6, 2019, there were 35,540,227 shares of the registrant's voting common stock outstanding and 4,643,530 shares of the registrant's non-voting common stock outstanding.

**Live Oak Bancshares, Inc.**  
**Form 10-Q**  
**For the Quarterly Period Ended March 31, 2019**

**TABLE OF CONTENTS**

	<u>Page</u>
<b>PART I. FINANCIAL INFORMATION</b>	
Item 1.	<a href="#"><u>Financial Statements (Unaudited)</u></a> 1
	<a href="#"><u>Condensed Consolidated Balance Sheets as of March 31, 2019 and December 31, 2018</u></a> 1
	<a href="#"><u>Condensed Consolidated Statements of Income for the Three Months Ended March 31, 2019 and 2018</u></a> 2
	<a href="#"><u>Condensed Consolidated Statements of Comprehensive Income for the Three Months Ended March 31, 2019 and 2018</u></a> 3
	<a href="#"><u>Condensed Consolidated Statements of Changes in Shareholders' Equity for the Three Months Ended March 31, 2019 and 2018</u></a> 4
	<a href="#"><u>Condensed Consolidated Statements of Cash Flows for the Three Months Ended March 31, 2019 and 2018</u></a> 5
	<a href="#"><u>Notes to Unaudited Condensed Consolidated Financial Statements</u></a> 7
Item 2.	<a href="#"><u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u></a> 42
Item 3.	<a href="#"><u>Quantitative and Qualitative Disclosures about Market Risk</u></a> 58
Item 4.	<a href="#"><u>Controls and Procedures</u></a> 58
<b>PART II. OTHER INFORMATION</b>	
Item 1.	<a href="#"><u>Legal Proceedings</u></a> 59
Item 1A.	<a href="#"><u>Risk Factors</u></a> 59
Item 2.	<a href="#"><u>Unregistered Sales of Equity Securities and Use of Proceeds</u></a> 59
Item 3.	<a href="#"><u>Defaults Upon Senior Securities</u></a> 59
Item 4.	<a href="#"><u>Mine Safety Disclosures</u></a> 59
Item 5.	<a href="#"><u>Other Information</u></a> 59
Item 6.	<a href="#"><u>Exhibits</u></a> 60
	<a href="#"><u>Index to Exhibits</u></a> 60
	<a href="#"><u>Signatures</u></a> 61

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**PART I. FINANCIAL INFORMATION**

**Item 1. Financial Statements**

**Live Oak Bancshares, Inc.**

**Condensed Consolidated Balance Sheets**

*As of March 31, 2019 (unaudited) and December 31, 2018\**

(Dollars in thousands)

	<b>March 31, 2019</b>	<b>December 31, 2018</b>
<b>Assets</b>		
Cash and due from banks	\$ 221,159	\$ 316,823
Federal funds sold	64,708	—
Certificates of deposit with other banks	7,250	7,250
Investment securities available-for-sale	569,739	380,490
Loans held for sale	772,481	687,393
Loans and leases held for investment	2,002,124	1,843,419
Allowance for loan and lease losses	(35,111)	(32,434)
Net loans and leases	1,967,013	1,810,985
Premises and equipment, net	271,810	262,524
Foreclosed assets	1,374	1,094
Servicing assets	44,324	47,641
Operating lease right-of-use assets	2,136	—
Other assets	136,053	156,249
Total assets	\$ 4,058,047	\$ 3,670,449
<b>Liabilities and Shareholders' Equity</b>		
<b>Liabilities</b>		
Deposits:		
Noninterest-bearing	\$ 53,843	\$ 53,993
Interest-bearing	3,474,562	3,095,590
Total deposits	3,528,405	3,149,583
Short term borrowings	1,393	1,441
Long term borrowings	17	16
Operating lease liabilities	2,314	—
Other liabilities	25,538	25,849
Total liabilities	3,557,667	3,176,889
<b>Shareholders' equity</b>		
Preferred stock, no par value, 1,000,000 authorized, none issued or outstanding at March 31, 2019 and December 31, 2018	—	—
Class A common stock, no par value, 100,000,000 shares authorized, 35,531,549 and 35,512,262 shares issued and outstanding at March 31, 2019 and December 31, 2018, respectively	281,994	278,945
Class B common stock, no par value, 10,000,000 shares authorized, 4,643,530 shares issued and outstanding at March 31, 2019 and December 31, 2018	49,168	49,168
Retained earnings	168,225	167,124
Accumulated other comprehensive income (loss)	993	(1,677)
Total shareholders' equity	500,380	493,560
Total liabilities and shareholders' equity	\$ 4,058,047	\$ 3,670,449

\* Derived from audited consolidated financial statements.

*See Notes to Unaudited Condensed Consolidated Financial Statements*

**Live Oak Bancshares, Inc.**  
**Condensed Consolidated Statements of Income**  
*For the three months ended March 31, 2019 and 2018 (unaudited)*  
(Dollars in thousands, except per share data)

	For the Three Months Ended March 31,	
	2019	2018
<b>Interest income</b>		
Loans and fees on loans	\$ 44,966	\$ 32,691
Investment securities, taxable	3,317	1,117
Other interest earning assets	1,639	1,215
Total interest income	49,922	35,023
<b>Interest expense</b>		
Deposits	19,317	10,418
Borrowings	—	129
Total interest expense	19,317	10,547
Net interest income	30,605	24,476
<b>Provision for loan and lease losses</b>		
Net interest income after provision for loan and lease losses	27,863	20,084
<b>Noninterest income</b>		
Loan servicing revenue	7,410	6,898
Loan servicing asset revaluation	(2,246)	(5,088)
Net gains on sales of loans	4,198	24,418
Gain on sale of investment securities available-for-sale	5	—
Lease income	2,325	1,608
Construction supervision fee income	779	779
Title insurance income	—	1,300
Other noninterest income	556	841
Total noninterest income	13,027	30,756
<b>Noninterest expense</b>		
Salaries and employee benefits	21,855	20,209
Travel expense	1,200	1,843
Professional services expense	2,182	1,298
Advertising and marketing expense	1,364	1,662
Occupancy expense	1,609	1,857
Data processing expense	2,399	2,837
Equipment expense	3,325	3,077
Other loan origination and maintenance expense	1,639	1,329
FDIC insurance	635	572
Title insurance closing services expense	—	426
Other noninterest expense	1,993	2,962
Total noninterest expense	38,201	38,072
<b>Income before taxes</b>		
	2,689	12,768
Income tax expense	317	315
<b>Net income</b>	<b>\$ 2,372</b>	<b>\$ 12,453</b>
Basic earnings per share	\$ 0.06	\$ 0.31
Diluted earnings per share	\$ 0.06	\$ 0.30

*See Notes to Unaudited Condensed Consolidated Financial Statements*

**Live Oak Bancshares, Inc.**  
**Condensed Consolidated Statements of Comprehensive Income**  
*For the three months ended March 31, 2019 and 2018 (unaudited)*  
(Dollars in thousands)

	Three Months Ended	
	March 31,	
	2019	2018
Net income	\$ 2,372	\$ 12,453
Other comprehensive income (loss) before tax:		
Net unrealized gain (loss) on investment securities arising during the period	3,518	(2,955)
Reclassification adjustment for gain on sale of securities available-for-sale included in net income	(5)	—
Other comprehensive income (loss) before tax	3,513	(2,955)
Income tax (expense) benefit	(843)	710
Other comprehensive income (loss), net of tax	2,670	(2,245)
Total comprehensive income	<u>\$ 5,042</u>	<u>\$ 10,208</u>

*See Notes to Unaudited Condensed Consolidated Financial Statements*

**Live Oak Bancshares, Inc.**  
**Condensed Consolidated Statements of Changes in Shareholders' Equity**  
**For the three months ended March 31, 2019 and 2018 (unaudited)**  
(Dollars in thousands)

	Common stock			Retained earnings	Accumulated other comprehensive income (loss)	Total equity
	Shares		Amount			
	Class A	Class B				
<b>Balance at December 31, 2017</b>	35,252,053	4,643,530	\$ 317,725	\$ 120,241	\$ (1,033)	\$ 436,933
Net income	—	—	—	12,453	—	12,453
Other comprehensive loss	—	—	—	—	(2,245)	(2,245)
Issuance of restricted stock	17,289	—	—	—	—	—
Withholding cash issued in lieu of restricted stock issuance	—	—	(311)	—	—	(311)
Employee stock purchase program	7,022	—	165	—	—	165
Stock option exercises	54,254	—	691	—	—	691
Stock option based compensation expense	—	—	463	—	—	463
Restricted stock expense	—	—	1,886	—	—	1,886
Reclassification of accumulated other comprehensive income due to tax rate change	—	—	—	244	(244)	—
Cash dividends (\$0.03 per share)	—	—	—	(1,199)	—	(1,199)
<b>Balance at March 31, 2018</b>	<u>35,330,618</u>	<u>4,643,530</u>	<u>\$ 320,619</u>	<u>\$ 131,739</u>	<u>\$ (3,522)</u>	<u>\$ 448,836</u>
<b>Balance at December 31, 2018</b>	35,512,262	4,643,530	\$ 328,113	\$ 167,124	\$ (1,677)	\$ 493,560
Net income	—	—	—	2,372	—	2,372
Other comprehensive income	—	—	—	—	2,670	2,670
Issuance of restricted stock	2,140	—	—	—	—	—
Withholding cash issued in lieu of restricted stock issuance	—	—	(5)	—	—	(5)
Employee stock purchase program	14,059	—	182	—	—	182
Stock option exercises	3,088	—	14	—	—	14
Stock option based compensation expense	—	—	470	—	—	470
Restricted stock expense	—	—	2,388	—	—	2,388
Cumulative effect of accounting change for Accounting Standards Update 2016-02	—	—	—	(66)	—	(66)
Cash dividends (\$0.03 per share)	—	—	—	(1,205)	—	(1,205)
<b>Balance at March 31, 2019</b>	<u>35,531,549</u>	<u>4,643,530</u>	<u>\$ 331,162</u>	<u>\$ 168,225</u>	<u>\$ 993</u>	<u>\$ 500,380</u>

See Notes to Unaudited Condensed Consolidated Financial Statements

**Live Oak Bancshares, Inc.**  
**Condensed Consolidated Statements of Cash Flows**  
**For the three months ended March 31, 2019 and 2018 (unaudited)**  
(Dollars in thousands)

	Three Months Ended March 31,	
	2019	2018
<b>Cash flows from operating activities</b>		
Net income	\$ 2,372	\$ 12,453
Adjustments to reconcile net income to net cash used by operating activities:		
Depreciation and amortization	4,034	3,786
Provision for loan and lease losses	2,742	4,392
Amortization of premium on securities, net of accretion	105	153
(Accretion) amortization of discount on unguaranteed loans	(1,319)	2,118
Deferred tax (benefit) expense	(632)	316
Originations of loans held for sale	(206,440)	(302,522)
Proceeds from sales of loans held for sale	80,931	277,279
Net gains on sale of loans held for sale	(4,198)	(24,418)
Net decrease (increase) in servicing assets	3,317	(822)
Net gain on disposal of long-lived asset	(357)	—
Stock option based compensation expense	470	463
Restricted stock expense	2,388	1,886
Stock based compensation expense tax (shortfall) benefit	(8)	14
Business combination contingent consideration fair value adjustment	—	(260)
Changes in assets and liabilities:		
Lease right-of-use assets and liabilities, net	114	—
Other assets	9,778	(12,065)
Other liabilities	(605)	1,123
Net cash used by operating activities	<u>(107,308)</u>	<u>(36,104)</u>
<b>Cash flows from investing activities</b>		
Purchases of securities available-for-sale	(198,384)	(293,046)
Proceeds from sales, maturities, calls, and principal paydown of securities available-for-sale	12,543	4,805
Proceeds from SBA reimbursement/sale of foreclosed assets	393	—
Maturities of certificates of deposits with other banks	—	750
Loan and lease originations and principal collections, net	(113,539)	(91,388)
Proceeds from sale of long-lived asset	10,895	—
Purchases of premises and equipment, net	(13,315)	(41,685)
Net cash used by investing activities	<u>(301,407)</u>	<u>(420,564)</u>

*See Notes to Unaudited Condensed Consolidated Financial Statements*

**Live Oak Bancshares, Inc.**  
**Condensed Consolidated Statements of Cash Flows (Continued)**  
*For the three months ended March 31, 2019 and 2018 (unaudited)*  
(Dollars in thousands)

	Three Months Ended March 31,	
	2019	2018
<b><i>Cash flows from financing activities</i></b>		
Net increase in deposits	\$ 378,822	\$ 713,078
Proceeds from long term borrowings	—	18
Repayment of long term borrowings	(1)	(23,093)
Repayment of short term borrowings	(48)	—
Stock option exercises	14	691
Employee stock purchase program	182	165
Withholding cash issued in lieu of restricted stock	(5)	(311)
Shareholder dividend distributions	(1,205)	(1,199)
Net cash provided by financing activities	377,759	689,349
Net (decrease) increase in cash and cash equivalents	(30,956)	232,681
<b><i>Cash and cash equivalents, beginning</i></b>	<b>316,823</b>	<b>295,271</b>
<b><i>Cash and cash equivalents, ending</i></b>	<b>\$ 285,867</b>	<b>\$ 527,952</b>
<b><i>Supplemental disclosure of cash flow information</i></b>		
Interest paid	\$ 17,837	\$ 10,368
Income tax (received) paid	(13,654)	251
<b><i>Supplemental disclosures of noncash operating, investing, and financing activities</i></b>		
Unrealized holding gains (losses) on available-for-sale securities, net of taxes	\$ 2,670	\$ (2,245)
Transfers from loans to foreclosed real estate and other repossessions	707	238
Right-of-use assets obtained in exchange for lessee operating lease liabilities	2,241	—
Transfer of loans held for sale to loans and leases held for investment	50,055	11,713
Transfer of loans and leases held for investment to loans held for sale	8,845	6,771

*See Notes to Unaudited Condensed Consolidated Financial Statements*



**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

**Note 1. Basis of Presentation**

*Nature of Operations*

Live Oak Bancshares, Inc. (the "Company" or "LOB") is a bank holding company headquartered in Wilmington, North Carolina incorporated under the laws of North Carolina in December 2008. The Company conducts business operations primarily through its commercial bank subsidiary, Live Oak Banking Company (the "Bank"). 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. The Bank specializes in providing lending services to small businesses nationwide. The Bank identifies and grows lending to credit-worthy borrowers both within specific industries, also called verticals, through expertise within those industries, and more broadly to select borrowers outside of those industries. A significant portion of the loans originated by the Bank are guaranteed by the Small Business Administration ("SBA") under the 7(a) Loan Program and the U.S. Department of Agriculture ("USDA") Rural Energy for America Program ("REAP"), Business & Industry ("B&I") and Water & Waste Disposal ("WEP") loan programs. On July 28, 2015 the Company completed its initial public offering with a secondary offering completed in August of 2017.

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

In addition to the Bank, the Company owns Live Oak Grove, LLC, opened in September 2015 for the purpose of providing Company employees and business visitors an on-site restaurant location; Government Loan Solutions, Inc. ("GLS"), a management and technology consulting firm that specializes in the settlement, accounting, and securitization processes for government guaranteed loans, including loans originated under the SBA 7(a) loan program and USDA-guaranteed loans; and 504 Fund Advisors, LLC ("504FA"), formed to serve as the investment adviser to the 504 Fund, a closed-end mutual fund organized to invest in SBA section 504 loans.

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

In November 2016, the Company formed Live Oak Clean Energy Financing LLC ("LOCEF") for the purpose of providing financing to entities for renewable energy applications. During the three months ended March 31, 2019, LOCEF became a wholly-owned subsidiary of the Bank.

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.

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

In September 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 services technology companies.

The Company generates revenue primarily from net interest income and the 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.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

***General***

In the opinion of management, all adjustments necessary for a fair presentation of the financial position and results of operations for the periods presented have been included, and all intercompany transactions have been eliminated in consolidation. Results of operations for the three months ended March 31, 2019 are not necessarily indicative of the results of operations that may be expected for the year ending December 31, 2019. The consolidated balance sheet as of December 31, 2018 has been derived from the audited consolidated financial statements contained in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the Securities Exchange Commission on February 27, 2019 (SEC File No. 001-37497) (the "2018 Annual Report"). A summary description of the significant accounting policies followed by the Company is set forth in Note 1 of the Notes to Consolidated Financial Statements in the Company's 2018 Annual Report. These unaudited interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and footnotes in the Company's 2018 Annual Report.

The preparation of financial statements in conformity with United States generally accepted accounting principles, or GAAP, requires management to make estimates and assumptions that affect reported amounts of assets and liabilities and the reported amounts of revenues and expenses during the reporting period. Actual results could differ significantly from those estimates.

Amounts in all tables in the Notes to Unaudited Condensed Consolidated Financial Statements have been presented in thousands, except percentage, time period, stock option, share and per share data or where otherwise indicated.

***Business Segments***

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.

***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.

***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.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

Right-of-use ("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.

**Note 2. Recent Accounting Pronouncements**

In February 2016, the FASB issued ASU No. 2016-02. The FASB issued this ASU to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet by lessees for those leases classified as operating leases under current GAAP and disclosing key information about leasing arrangements. The Company adopted these amendments on January 1, 2019. See Note 1. Basis of Presentation and Note 6. Leases for additional information.

In June 2016, the FASB issued 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 will be effective for the Company on January 1, 2020. The Company is currently evaluating the potential impact of ASU 2016-13 on the consolidated financial statements. In that regard, a cross-functional working group has been formed, under the direction of the Company's Chief Financial Officer and Chief Credit Officer. The working group is comprised of individuals from various functional areas including credit, risk management, finance and information technology, among others. Implementation efforts continue with model development, ongoing system requirements evaluation and the identification of data and resource needs, among other things. The Company has also engaged a third-party vendor solution to assist in the application of ASU 2016-13. While the Company is currently unable to reasonably estimate the impact of adopting ASU 2016-13, the impact of adoption is expected to be significantly influenced by the composition, characteristics and quality of loan and securities portfolios as well as the prevailing economic conditions and forecasts as of the adoption date.

In 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.

In July 2018, the FASB issued ASU No. 2018-10, "Codification Improvements to Topic 842, Leases" ("ASU 2018-10"). ASU 2018-10 provides clarification on narrow aspects to Topic 842 and to correct unintended application of the guidance. The Company adopted the amendments on January 1, 2019. See Note 1. Basis of Presentation and Note 6. Leases for additional information.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

In July 2018, the FASB issued ASU No. 2018-11 which provides an additional transition method to adopt ASU 2016-02. The transition method allows an entity to apply ASU 2016-02 at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. An entity that elects this transition method must provide required disclosures under Topic 840 for all periods that are in accordance with Topic 840. ASU 2018-11 also provides lessors with a practical expedient to not separate non-lease components from lease components by class of underlying asset. The Company adopted the amendments on January 1, 2019. See Note 1. Basis of Presentation and Note 6. Leases for additional information.

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.

**Note 3. 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.

	For the Three Months Ended March 31,	
	2019	2018
<b>Basic earnings per share:</b>		
Net income available to common shareholders	\$ 2,372	\$ 12,453
Weighted-average basic shares outstanding	40,160,118	39,926,781
Basic earnings per share	\$ 0.06	\$ 0.31
<b>Diluted earnings per share:</b>		
Net income available to common shareholders, for diluted earnings per share	\$ 2,372	\$ 12,453
Total weighted-average basic shares outstanding	40,160,118	39,926,781
Add effect of dilutive stock options and restricted stock grants	761,705	1,473,149
Total weighted-average diluted shares outstanding	40,921,823	41,399,930
Diluted earnings per share	\$ 0.06	\$ 0.30
Anti-dilutive shares	1,597,589	—

Live Oak Bancshares, Inc.  
Notes to Unaudited Condensed Consolidated Financial Statements

Note 4. Investment Securities

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

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
<b>March 31, 2019</b>				
US treasury securities	\$ 4,974	\$ 2	\$ —	\$ 4,976
US government agencies	48,290	145	153	48,282
Mortgage-backed securities	506,634	3,193	1,874	507,953
Municipal bonds	8,535	—	7	8,528
Total	<u>\$ 568,433</u>	<u>\$ 3,340</u>	<u>\$ 2,034</u>	<u>\$ 569,739</u>
<b>December 31, 2018</b>				
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	<u>\$ 382,696</u>	<u>\$ 1,388</u>	<u>\$ 3,594</u>	<u>\$ 380,490</u>

During the three months ended March 31, 2019, \$900 thousand of one municipal bond was sold resulting in a net gain of \$5 thousand. There were no sales of securities during the three months ended March 31, 2018.

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	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
<b>March 31, 2019</b>						
US treasury securities	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
US government agencies	5,996	4	16,353	149	22,349	153
Mortgage-backed securities	19,905	91	109,048	1,783	128,953	1,874
Municipal bonds	93	7	—	—	93	7
Total	<u>\$ 25,994</u>	<u>\$ 102</u>	<u>\$ 125,401</u>	<u>\$ 1,932</u>	<u>\$ 151,395</u>	<u>\$ 2,034</u>
<b>December 31, 2018</b>						
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	<u>\$ 170,801</u>	<u>\$ 1,181</u>	<u>\$ 67,639</u>	<u>\$ 2,413</u>	<u>\$ 238,440</u>	<u>\$ 3,594</u>

At March 31, 2019, there were forty-one mortgage-backed securities and six US government agencies in unrealized loss positions for greater than 12 months and eight mortgage-backed securities, two US government agencies and one municipal bond in unrealized loss positions for less than 12 months. Unrealized losses at December 31, 2018 were comprised of thirty-one mortgage-backed securities and six US government agencies in unrealized loss positions for greater than 12 months and twenty-five 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 the securities for a sufficient period of time to recover unrealized losses, none of the securities are deemed to be other than temporarily impaired.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

All mortgage-backed securities in the Company's portfolio at March 31, 2019 and December 31, 2018 were backed by U.S. government sponsored enterprises ("GSEs").

The following is a summary of investment securities by maturity:

	March 31, 2019	
	Amortized cost	Fair value
US treasury securities		
One to five years	\$ 4,974	\$ 4,976
Total	4,974	4,976
US government agencies		
Within one year	3,978	3,957
One to five years	32,403	32,362
Five to ten years	11,909	11,963
Total	48,290	48,282
Mortgage-backed securities		
One to five years	3,028	2,980
Five to ten years	144,888	145,144
After 10 years	358,718	359,829
Total	506,634	507,953
Municipal bonds		
After 10 years	8,535	8,528
Total	8,535	8,528
<b>Total</b>	<b>\$ 568,433</b>	<b>\$ 569,739</b>

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

At March 31, 2019 and December 31, 2018, an investment security with a fair market value of \$100 thousand was pledged to the Ohio State Treasurer to allow the Company's trust department to conduct business in the state of Ohio. 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.

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

*Loan and Lease Portfolio Segments*

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

*Commercial and Industrial*

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

*Construction and Development*

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

*Commercial Real Estate*

Commercial real estate loans are extensions of credit secured by owner occupied and non-owner occupied collateral. Underwriting generally involves intensive analysis of the financial strength of the borrower and guarantor, liquidation value of the subject collateral, the associated unguaranteed exposure, and any available secondary sources of repayment, with the greatest emphasis given to a borrower's capacity to meet cash flow coverage requirements as set forth by Bank policies. Such repayment of 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.

*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.

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.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

Loans and leases consist of the following:

	March 31, 2019	December 31, 2018
<b>Commercial &amp; Industrial</b>		
Agriculture	\$ 5,813	\$ 6,400
Death Care Management	22,809	17,378
Healthcare	49,752	51,082
Independent Pharmacies	110,458	108,783
Registered Investment Advisors	95,292	94,338
Veterinary Industry	45,333	45,604
Other Industries	339,423	295,163
<b>Total</b>	<b>668,880</b>	<b>618,748</b>
<b>Construction &amp; Development</b>		
Agriculture	31,236	43,454
Death Care Management	10,153	9,874
Healthcare	80,476	81,619
Independent Pharmacies	1,156	2,149
Registered Investment Advisors	1,586	1,232
Veterinary Industry	18,149	14,094
Other Industries	123,668	96,482
<b>Total</b>	<b>266,424</b>	<b>248,904</b>
<b>Commercial Real Estate</b>		
Agriculture	46,049	53,085
Death Care Management	87,651	71,344
Healthcare	215,093	188,531
Independent Pharmacies	27,190	20,597
Registered Investment Advisors	6,825	7,905
Veterinary Industry	138,129	136,721
Other Industries	297,867	260,847
<b>Total</b>	<b>818,804</b>	<b>739,030</b>
<b>Commercial Land</b>		
Agriculture	255,201	243,798
<b>Total</b>	<b>255,201</b>	<b>243,798</b>
<b>Total Loans</b>		
Net Deferred Costs	4,186	5,960
Discount on SBA 7(a) Unguaranteed	(11,371)	(13,021)
<b>Loans, Net of Unearned</b>	<b>\$ 2,002,124</b>	<b>\$ 1,843,419</b>

1 Total loans and leases include \$386.7 million and \$305.4 million of U.S. government guaranteed loans as of March 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.



**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

***Credit Risk Profile***

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

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

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

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

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

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

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

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

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

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

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

The following tables summarize the risk grades of each category:

	Risk Grades 1 - 4	Risk Grade 5	Risk Grades 6 - 8	Total <sup>1</sup>
<b>March 31, 2019</b>				
<b>Commercial &amp; Industrial</b>				
Agriculture	\$ 5,264	\$ 549	\$ —	\$ 5,813
Death Care Management	21,149	1,655	5	22,809
Healthcare	38,008	2,473	9,271	49,752
Independent Pharmacies	96,556	6,541	7,361	110,458
Registered Investment Advisors	90,304	2,267	2,721	95,292
Veterinary Industry	41,671	1,339	2,323	45,333
Other Industries	316,476	16,236	6,711	339,423
<b>Total</b>	<b>609,428</b>	<b>31,060</b>	<b>28,392</b>	<b>668,880</b>
<b>Construction &amp; Development</b>				
Agriculture	31,236	—	—	31,236
Death Care Management	10,153	—	—	10,153
Healthcare	78,138	2,338	—	80,476
Independent Pharmacies	1,156	—	—	1,156
Registered Investment Advisors	1,586	—	—	1,586
Veterinary Industry	18,149	—	—	18,149
Other Industries	121,073	2,595	—	123,668
<b>Total</b>	<b>261,491</b>	<b>4,933</b>	<b>—</b>	<b>266,424</b>
<b>Commercial Real Estate</b>				
Agriculture	45,016	1,033	—	46,049
Death Care Management	80,856	3,385	3,410	87,651
Healthcare	185,948	8,830	20,315	215,093
Independent Pharmacies	17,499	2,452	7,239	27,190
Registered Investment Advisors	6,704	121	—	6,825
Veterinary Industry	120,974	4,147	13,008	138,129
Other Industries	281,662	6,866	9,339	297,867
<b>Total</b>	<b>738,659</b>	<b>26,834</b>	<b>53,311</b>	<b>818,804</b>
<b>Commercial Land</b>				
Agriculture	229,677	11,313	14,211	255,201
<b>Total</b>	<b>229,677</b>	<b>11,313</b>	<b>14,211</b>	<b>255,201</b>
<b>Total</b>	<b>\$ 1,839,255</b>	<b>\$ 74,140</b>	<b>\$ 95,914</b>	<b>\$ 2,009,309</b>

Live Oak Bancshares, Inc.  
Notes to Unaudited Condensed Consolidated Financial Statements

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

1 Total loans and leases include \$386.7 million of U.S. government guaranteed loans as of March 31, 2019, segregated by risk grade as follows: Risk Grades 1 – 4 = \$303.7 million, Risk Grade 5 = \$15.9 million, Risk Grades 6 – 8 = \$67.1 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.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

**Past Due Loans and Leases**

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

	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 Loans	Current Loans	Total Loans	Loans 90 Days or More Past Due & Still Accruing
<b>March 31, 2019</b>								
<b>Commercial &amp; Industrial</b>								
Agriculture	\$ —	\$ 260	\$ —	\$ —	\$ 260	\$ 5,553	\$ 5,813	\$ —
Death Care Management	—	—	—	—	—	22,809	22,809	—
Healthcare	933	61	919	5,981	7,894	41,858	49,752	—
Independent Pharmacies	—	—	639	6,722	7,361	103,097	110,458	—
Registered Investment Advisors	1,226	70	—	1,223	2,519	92,773	95,292	—
Veterinary Industry	—	—	574	1,032	1,606	43,727	45,333	—
Other Industries	4,137	781	716	1,094	6,728	332,695	339,423	—
<b>Total</b>	<b>6,296</b>	<b>1,172</b>	<b>2,848</b>	<b>16,052</b>	<b>26,368</b>	<b>642,512</b>	<b>668,880</b>	<b>—</b>
<b>Construction &amp; Development</b>								
Agriculture	—	—	—	—	—	31,236	31,236	—
Death Care Management	—	—	—	—	—	10,153	10,153	—
Healthcare	—	—	—	—	—	80,476	80,476	—
Independent Pharmacies	—	—	—	—	—	1,156	1,156	—
Registered Investment Advisors	—	—	—	—	—	1,586	1,586	—
Veterinary Industry	—	—	—	—	—	18,149	18,149	—
Other Industries	—	—	—	—	—	123,668	123,668	—
<b>Total</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>266,424</b>	<b>266,424</b>	<b>—</b>
<b>Commercial Real Estate</b>								
Agriculture	—	567	—	—	567	45,482	46,049	—
Death Care Management	540	—	—	2,736	3,276	84,375	87,651	—
Healthcare	41	1,034	—	7,362	8,437	206,656	215,093	—
Independent Pharmacies	—	—	—	5,901	5,901	21,289	27,190	—
Registered Investment Advisors	—	—	—	—	—	6,825	6,825	—
Veterinary Industry	1,596	3,740	2,835	3,701	11,872	126,257	138,129	—
Other Industries	—	—	—	6,573	6,573	291,294	297,867	—
<b>Total</b>	<b>2,177</b>	<b>5,341</b>	<b>2,835</b>	<b>26,273</b>	<b>36,626</b>	<b>782,178</b>	<b>818,804</b>	<b>—</b>
<b>Commercial Land</b>								
Agriculture	9,430	—	—	4,781	14,211	240,990	255,201	—
<b>Total</b>	<b>9,430</b>	<b>—</b>	<b>—</b>	<b>4,781</b>	<b>14,211</b>	<b>240,990</b>	<b>255,201</b>	<b>—</b>
<b>Total<sup>1</sup></b>	<b>\$ 17,903</b>	<b>\$ 6,513</b>	<b>\$ 5,683</b>	<b>\$ 47,106</b>	<b>\$ 77,205</b>	<b>\$ 1,932,104</b>	<b>\$ 2,009,309</b>	<b>\$ —</b>

Live Oak Bancshares, Inc.  
Notes to Unaudited Condensed Consolidated Financial Statements

	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 Loans	Current Loans	Total Loans	Loans 90 Days or More Past Due & Still Accruing
<b>December 31, 2018</b>								
<b>Commercial &amp; Industrial</b>								
Agriculture	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 6,400	\$ 6,400	\$ —
Death Care Management	—	—	—	—	—	17,378	17,378	—
Healthcare	41	1,027	665	6,821	8,554	42,528	51,082	—
Independent Pharmacies	1,399	29	—	7,570	8,998	99,785	108,783	—
Registered Investment Advisors	—	232	320	2,741	3,293	91,045	94,338	—
Veterinary Industry	—	—	600	906	1,506	44,098	45,604	—
Other Industries	2,669	166	—	504	3,339	291,824	295,163	—
<b>Total</b>	<b>4,109</b>	<b>1,454</b>	<b>1,585</b>	<b>18,542</b>	<b>25,690</b>	<b>593,058</b>	<b>618,748</b>	<b>—</b>
<b>Construction &amp; Development</b>								
Agriculture	—	—	—	—	—	43,454	43,454	—
Death Care Management	—	—	—	—	—	9,874	9,874	—
Healthcare	—	—	—	—	—	81,619	81,619	—
Independent Pharmacies	—	—	—	—	—	2,149	2,149	—
Registered Investment Advisors	—	—	—	—	—	1,232	1,232	—
Veterinary Industry	—	—	—	—	—	14,094	14,094	—
Other Industries	—	—	—	—	—	96,482	96,482	—
<b>Total</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>248,904</b>	<b>248,904</b>	<b>—</b>
<b>Commercial Real Estate</b>								
Agriculture	—	—	—	—	—	53,085	53,085	—
Death Care Management	248	—	—	2,762	3,010	68,334	71,344	—
Healthcare	42	1,668	—	7,417	9,127	179,404	188,531	—
Independent Pharmacies	—	3,400	—	2,193	5,593	15,004	20,597	—
Registered Investment Advisors	—	—	—	—	—	7,905	7,905	—
Veterinary Industry	1,644	3,757	2,899	5,191	13,491	123,230	136,721	—
Other Industries	—	10,743	—	—	10,743	250,104	260,847	—
<b>Total</b>	<b>1,934</b>	<b>19,568</b>	<b>2,899</b>	<b>17,563</b>	<b>41,964</b>	<b>697,066</b>	<b>739,030</b>	<b>—</b>
<b>Commercial Land</b>								
Agriculture	6,277	—	—	4,781	11,058	232,740	243,798	—
<b>Total</b>	<b>6,277</b>	<b>—</b>	<b>—</b>	<b>4,781</b>	<b>11,058</b>	<b>232,740</b>	<b>243,798</b>	<b>—</b>
<b>Total<sup>1</sup></b>	<b>\$ 12,320</b>	<b>\$ 21,022</b>	<b>\$ 4,484</b>	<b>\$ 40,886</b>	<b>\$ 78,712</b>	<b>\$ 1,771,768</b>	<b>\$ 1,850,480</b>	<b>\$ —</b>

1 Total loans and leases include \$386.7 million of U.S. government guaranteed loans as of March 31, 2019, of which \$36.5 million is greater than 90 days past due, \$6.5 million is 30-89 days past due and \$343.7 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.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

***Nonaccrual Loans and Leases***

Loans and leases that become 90 days delinquent, or in cases where there is evidence that the borrower's ability to make the required payments is impaired, are placed in nonaccrual status and interest accrual is discontinued. If interest on nonaccrual loans and leases had been accrued in accordance with the original terms, interest income would have increased by approximately \$1.1 million and \$457 thousand for the three months ended March 31, 2019 and 2018, respectively. All nonaccrual loans and leases are included in the held for investment portfolio.

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

	<b>Loan Balance</b>	<b>Guaranteed Balance</b>	<b>Unguaranteed Exposure</b>
<b>March 31, 2019</b>			
<b>Commercial &amp; Industrial</b>			
Healthcare	\$ 7,833	\$ 6,620	\$ 1,213
Independent Pharmacies	7,361	6,227	1,134
Registered Investment Advisors	2,449	1,837	612
Veterinary Industry	1,606	1,486	120
Other Industries	5,947	3,824	2,123
<b>Total</b>	<b>25,196</b>	<b>19,994</b>	<b>5,202</b>
<b>Commercial Real Estate</b>			
Death Care Management	3,276	2,537	739
Healthcare	7,403	4,922	2,481
Independent Pharmacies	5,901	5,145	756
Veterinary Industry	8,132	6,883	1,249
Other Industries	6,573	3,750	2,823
<b>Total</b>	<b>31,285</b>	<b>23,237</b>	<b>8,048</b>
<b>Commercial Land</b>			
Agriculture	14,211	7,276	6,935
<b>Total</b>	<b>14,211</b>	<b>7,276</b>	<b>6,935</b>
<b>Total</b>	<b>\$ 70,692</b>	<b>\$ 50,507</b>	<b>\$ 20,185</b>
<b>December 31, 2018</b>			
<b>Commercial &amp; Industrial</b>			
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
<b>Total</b>	<b>24,236</b>	<b>20,348</b>	<b>3,888</b>
<b>Commercial Real Estate</b>			
Death Care Management	3,010	2,260	750
Healthcare	7,459	4,963	2,496
Independent Pharmacies	2,193	1,863	330
Veterinary Industry	9,734	8,271	1,463
<b>Total</b>	<b>22,396</b>	<b>17,357</b>	<b>5,039</b>
<b>Commercial Land</b>			
Agriculture	11,058	5,497	5,561
<b>Total</b>	<b>11,058</b>	<b>5,497</b>	<b>5,561</b>
<b>Total</b>	<b>\$ 57,690</b>	<b>\$ 43,202</b>	<b>\$ 14,488</b>

***Allowance for Loan and Lease Loss Methodology***

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

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

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

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

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

The Company’s policy for impaired loan and lease 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 and 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 or lease’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 or 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.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

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

Three months ended:	Construction & Development	Commercial Real Estate	Commercial & Industrial	Commercial Land	Total
<b>March 31, 2019</b>					
Beginning Balance	\$ 2,042	\$ 11,044	\$ 14,562	\$ 4,786	\$ 32,434
Charge offs	—	—	(222)	—	(222)
Recoveries	—	10	142	5	157
Provision	194	(431)	2,061	918	2,742
Ending Balance	<u>\$ 2,236</u>	<u>\$ 10,623</u>	<u>\$ 16,543</u>	<u>\$ 5,709</u>	<u>\$ 35,111</u>
<b>March 31, 2018</b>					
Beginning Balance	\$ 2,030	\$ 9,180	\$ 10,751	\$ 2,229	\$ 24,190
Charge offs	—	—	(672)	—	(672)
Recoveries	—	4	136	—	140
Provision	398	2,060	1,986	(52)	4,392
Ending Balance	<u>\$ 2,428</u>	<u>\$ 11,244</u>	<u>\$ 12,201</u>	<u>\$ 2,177</u>	<u>\$ 28,050</u>

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

March 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	\$ —	\$ 2,566	\$ 3,750	\$ 4,843	\$ 11,159
Loans and leases collectively evaluated for impairment	2,236	8,057	12,793	866	23,952
Total allowance for loan and lease losses	<u>\$ 2,236</u>	<u>\$ 10,623</u>	<u>\$ 16,543</u>	<u>\$ 5,709</u>	<u>\$ 35,111</u>
Loans and leases receivable <sup>1</sup> :					
Loans and leases individually evaluated for impairment	\$ —	\$ 56,287	\$ 28,842	\$ 35,656	\$ 120,785
Loans and leases collectively evaluated for impairment	266,424	762,517	640,038	219,545	1,888,524
Total loans and leases receivable	<u>\$ 266,424</u>	<u>\$ 818,804</u>	<u>\$ 668,880</u>	<u>\$ 255,201</u>	<u>\$ 2,009,309</u>
<b>December 31, 2018</b>					
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	<u>\$ 2,042</u>	<u>\$ 11,044</u>	<u>\$ 14,562</u>	<u>\$ 4,786</u>	<u>\$ 32,434</u>
Loans and leases receivable <sup>1</sup> :					
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	<u>\$ 248,904</u>	<u>\$ 739,030</u>	<u>\$ 618,748</u>	<u>\$ 243,798</u>	<u>\$ 1,850,480</u>



**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

1 Loans and leases receivable includes \$386.7 million of U.S. government guaranteed loans as of March 31, 2019, of which \$82.6 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.

<b>March 31, 2019</b>	<b>Recorded Investment</b>	<b>Guaranteed Balance</b>	<b>Unguaranteed Exposure</b>
<b>Commercial &amp; Industrial</b>			
Agriculture	\$ 7	\$ —	\$ 7
Death Care Management	5	—	5
Healthcare	9,409	6,620	2,789
Independent Pharmacies	7,647	6,227	1,420
Registered Investment Advisors	2,729	1,838	891
Veterinary Industry	2,392	1,922	470
Other Industries	6,653	3,980	2,673
<b>Total</b>	<b>28,842</b>	<b>20,587</b>	<b>8,255</b>
<b>Commercial Real Estate</b>			
Death Care Management	3,405	2,537	868
Healthcare	22,176	14,466	7,710
Independent Pharmacies	7,244	6,149	1,095
Veterinary Industry	14,078	10,206	3,872
Other Industries	9,384	5,824	3,560
<b>Total</b>	<b>56,287</b>	<b>39,182</b>	<b>17,105</b>
<b>Commercial Land</b>			
Agriculture	35,656	22,808	12,848
<b>Total</b>	<b>35,656</b>	<b>22,808</b>	<b>12,848</b>
<b>Total</b>	<b>\$ 120,785</b>	<b>\$ 82,577</b>	<b>\$ 38,208</b>
<b>December 31, 2018</b>			
<b>Commercial &amp; Industrial</b>			
Agriculture	\$ 7	\$ —	\$ 7
Death Care Management	6	—	6
Healthcare	9,668	7,229	2,439
Independent Pharmacies	9,356	7,896	1,460
Registered Investment Advisors	3,347	2,427	920
Veterinary Industry	2,326	1,819	507
Other Industries	3,949	2,304	1,645
<b>Total</b>	<b>28,659</b>	<b>21,675</b>	<b>6,984</b>
<b>Construction &amp; Development</b>			
Agriculture	5,027	3,704	1,323
<b>Total</b>	<b>5,027</b>	<b>3,704</b>	<b>1,323</b>
<b>Commercial Real Estate</b>			
Agriculture	1,798	1,299	499
Death Care Management	3,143	2,261	882
Healthcare	20,442	14,559	5,883
Independent Pharmacies	5,633	4,079	1,554
Veterinary Industry	15,715	11,613	4,102
<b>Total</b>	<b>46,731</b>	<b>33,811</b>	<b>12,920</b>
<b>Commercial Land</b>			
Agriculture	21,997	13,177	8,820
<b>Total</b>	<b>21,997</b>	<b>13,177</b>	<b>8,820</b>
<b>Total</b>	<b>\$ 102,414</b>	<b>\$ 72,367</b>	<b>\$ 30,047</b>

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

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

	March 31, 2019				
	Recorded Investment			Unpaid Principal Balance	Related Allowance Recorded
	With a Recorded Allowance	With No Recorded Allowance	Total		
<b>Commercial &amp; Industrial</b>					
Agriculture	\$ 7	\$ —	\$ 7	\$ 6	\$ 7
Death Care Management	—	5	5	5	—
Healthcare	9,199	210	9,409	10,016	915
Independent Pharmacies	7,362	285	7,647	8,226	583
Registered Investment Advisors	2,729	—	2,729	2,721	747
Veterinary Industry	2,335	57	2,392	2,582	61
Other Industries	6,653	—	6,653	6,858	1,437
<b>Total</b>	<b>28,285</b>	<b>557</b>	<b>28,842</b>	<b>30,414</b>	<b>3,750</b>
<b>Commercial Real Estate</b>					
Death Care Management	3,127	278	3,405	3,545	30
Healthcare	20,071	2,105	22,176	22,186	1,217
Independent Pharmacies	7,244	—	7,244	7,529	44
Veterinary Industry	13,970	108	14,078	14,937	887
Other Industries	9,384	—	9,384	9,339	388
<b>Total</b>	<b>53,796</b>	<b>2,491</b>	<b>56,287</b>	<b>57,536</b>	<b>2,566</b>
<b>Commercial Land</b>					
Agriculture	35,656	—	35,656	35,770	4,843
<b>Total</b>	<b>35,656</b>	<b>—</b>	<b>35,656</b>	<b>35,770</b>	<b>4,843</b>
<b>Total Impaired Loans and Leases</b>	<b>\$ 117,737</b>	<b>\$ 3,048</b>	<b>\$ 120,785</b>	<b>\$ 123,720</b>	<b>\$ 11,159</b>

Live Oak Bancshares, Inc.  
Notes to Unaudited Condensed Consolidated Financial Statements

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

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

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

	Three Months Ended March 31, 2019		Three Months Ended March 31, 2018	
	Average Balance	Interest Income Recognized	Average Balance	Interest Income Recognized
<b>Commercial &amp; Industrial</b>				
Agriculture	\$ 6	\$ —	\$ —	\$ —
Death Care Management	6	—	7	—
Healthcare	9,424	31	4,263	12
Independent Pharmacies	7,296	10	9,717	20
Registered Investment Advisors	2,762	5	720	12
Veterinary Industry	2,424	14	3,138	20
Other Industries	6,449	17	—	—
<b>Total</b>	<b>28,367</b>	<b>77</b>	<b>17,845</b>	<b>64</b>
<b>Construction &amp; Development</b>				
Agriculture	—	—	2,457	5
Healthcare	—	—	1,976	23
<b>Total</b>	<b>—</b>	<b>—</b>	<b>4,433</b>	<b>28</b>
<b>Commercial Real Estate</b>				
Death Care Management	3,428	2	3,903	37
Healthcare	22,303	228	11,057	16
Independent Pharmacies	6,128	42	1,080	—
Veterinary Industry	14,791	101	16,108	137
Other Industries	9,359	9	—	—
<b>Total</b>	<b>56,009</b>	<b>382</b>	<b>32,148</b>	<b>190</b>
<b>Commercial Land</b>				
Agriculture	35,601	238	—	—
<b>Total</b>	<b>35,601</b>	<b>238</b>	<b>—</b>	<b>—</b>
<b>Total</b>	<b>\$ 119,977</b>	<b>\$ 697</b>	<b>\$ 54,426</b>	<b>\$ 282</b>

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

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

	Three months ended March 31, 2019			Three months ended March 31, 2018		
	All Restructurings			All Restructurings		
	Number of Loans	Pre- modification Recorded Investment	Post- modification Recorded Investment	Number of Loans	Pre- modification Recorded Investment	Post- modification Recorded Investment
<i>Interest Only</i>						
<b>Construction and Development</b>						
Healthcare	—	\$ —	\$ —	1	\$ 612	\$ 612
<i>Total Interest Only</i>	—	—	—	1	612	612
<i>Extended Amortization</i>						
<b>Commercial Land</b>						
Agriculture	1	3,489	3,489	—	—	—
<i>Total Extend Amortization</i>	1	3,489	3,489	—	—	—
<i>Payment Deferral</i>						
<b>Commercial &amp; Industrial</b>						
Healthcare	1	144	144	—	—	—
<b>Commercial Real Estate</b>						
Healthcare	1	1,853	1,853	—	—	—
<i>Total Payment Deferral</i>	2	1,997	1,997	—	—	—
<b>Total</b>	<b>3</b>	<b>\$ 5,486</b>	<b>\$ 5,486</b>	<b>1</b>	<b>\$ 612</b>	<b>\$ 612</b>

Concessions made to improve a loan and lease's performance have varying degrees of success. No TDRs that were modified within the twelve months ended March 31, 2019 and 2018 subsequently defaulted during the three months ended March 31, 2019 and 2018.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

**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*

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

	<b>March 31, 2019</b>	<b>December 31, 2018</b>
Gross direct finance lease payments receivable	\$ 14,944	\$ 12,541
Less – unearned interest	(3,097)	(2,635)
Net investment in direct financing leases	<u>\$ 11,847</u>	<u>\$ 9,906</u>

Future minimum lease payments under finance leases are as follows:

<b>As of March 31, 2019</b>		
2019		\$ 2,087
2020		2,801
2021		2,750
2022		2,484
2023		1,987
Thereafter		2,835
Total		<u>\$ 14,944</u>

Interest income of \$234 thousand and \$47 thousand was recognized in the three months ended March 31, 2019 and 2018, respectively.

*Operating Leases*

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

Rental revenue from operating leases is recognized over 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.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

As of March 31, 2019 and December 31, 2018, the Company had a net investment of \$149.8 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 \$162.5 million and \$159.2 million and accumulated depreciation was \$12.7 million and \$10.4 million as of March 31, 2019 and December 31, 2018, respectively. Depreciation expense recognized on these assets for the three months ended March 31, 2019 and 2018 was \$2.4 million, and \$1.7 million, respectively.

Lease income of \$2.3 million and \$1.6 million was recognized in the three months ended March 31, 2019 and 2018, respectively.

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

<b>As of March 31, 2019</b>	<b>Amount</b>
2019	\$ 6,924
2020	8,880
2021	8,930
2022	8,924
2023	8,955
Thereafter	48,278
Total	\$ 90,891

**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 3.7 years. There are no options to extend or terminate this lease.

The components of lease expense are as follows:

	<b>Three Months Ended March 31, 2019</b>
Operating lease cost	\$ 157
Short-term lease cost	209
Finance lease cost:	
Amortization of right-of-use assets	1
Interest expense on lease liabilities	—
Sublease income	(9)
Total net lease cost	\$ 358

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

	<b>March 31, 2019</b>
Finance lease right-of-use asset	\$ 17
Finance lease liability	17

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

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

	As of March 31, 2019
<b>Weighted average remaining lease term (years)</b>	
Operating leases	14.88
Finance lease	3.67
<b>Weighted average discount rate</b>	
Operating leases	3.47%
Finance lease	3.10%

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

As of March 31, 2019	Operating Leases	Finance Leases
2019	\$ 514	\$ 4
2020	504	5
2021	297	5
2022	275	4
2023	143	—
Thereafter	1,285	—
Total lease payments	3,018	18
Less: imputed interest	(704)	(1)
Total lease liabilities	\$ 2,314	\$ 17

**Note 7. Servicing Assets**

Loans serviced for others are not included in the accompanying balance sheet. The unpaid principal balances of loans serviced for others requiring recognition of a servicing asset were \$2.51 billion and \$2.63 billion at March 31, 2019 and December 31, 2018, respectively. The unpaid principal balance for all loans serviced for others was \$3.13 billion and \$3.22 billion at March 31, 2019 and December 31, 2018, respectively.

The following summarizes the activity pertaining to servicing rights:

	For the Three Months Ended March 31,	
	2019	2018
Balance at beginning of period	\$ 47,641	\$ 52,298
Additions, net	723	4,874
Fair value changes:		
Due to changes in valuation inputs or assumptions	(524)	(819)
Decay due to increases in principal paydowns or runoff	(3,516)	(3,233)
Balance at end of period	\$ 44,324	\$ 53,120

The fair value of servicing rights was determined using a weighted average discount rate of 14.7% on March 31, 2019 and 13.2% on March 31, 2018. The fair value of servicing rights was determined using a weighted average prepayment speed of 13.1% on March 31, 2019 and 9.0% on March 31, 2018, depending on the stratification of the specific right. 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.



**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

**Note 8. Borrowings**

Total outstanding short and long term borrowings consisted of the following:

	<u>March 31, 2019</u>	<u>December 31, 2018</u>
<b><u>Short term borrowings</u></b>		
On September 18, 2014, the Company entered into a note payable revolving line of credit of \$8.1 million with an unaffiliated commercial bank. On April 18, 2017, the Company renewed and increased the revolving line of credit to \$25 million. The note is unsecured and accrues interest at Prime minus 0.50% for a term of 24 months. Payments are interest only with all principal and accrued interest due on April 30, 2019. The terms of this loan require the Company to maintain minimum capital, liquidity and Texas ratios. This line of credit was paid in full on August 25, 2017, and there is \$25 million of available credit at March 31, 2019.	\$ —	\$ —
On February 23, 2015, the Company transferred two related party loans to an unaffiliated commercial bank in exchange for \$4.7 million. The exchange price equated to the unpaid principal balance plus accrued but uncollected interest at the time of transfer. The terms of the transfer agreement with the unaffiliated commercial bank identified the transaction as a secured borrowing for accounting purposes. One of the loans with an outstanding balance of \$1.3 million was paid in full on August 17, 2018. Interest accrues at prime plus 1% with monthly principal and interest payments over a term of 60 months. The interest rate at March 31, 2019 is 6.50%. The maturity date is October 5, 2019. The pledged collateral is classified in other assets with a fair value of \$1.4 million at March 31, 2019. The underlying loan carries a risk grade of 3 and is current with no delinquency.	1,393	1,441
On October 20, 2017, the Company entered into a revolving line of credit of \$20 million with an unaffiliated commercial bank. On October 2, 2018, the Company renewed the revolving \$20 million line of credit. The note is unsecured and accrues interest at LIBOR plus 1.750% for a term of 12 months. Payments are interest only with all principal and accrued interest due on October 18, 2019. The terms of this loan require the Company to maintain minimum capital and debt service coverage ratios. No advances have been made to this line of credit and there is \$20 million of available credit at March 31, 2019.	—	—
Total short term borrowings	<u>\$ 1,393</u>	<u>\$ 1,441</u>
	<u>March 31, 2019</u>	<u>December 31, 2018</u>
<b><u>Long term borrowings</u></b>		
In October 2017, the Company entered into a capital lease of \$19 thousand with an unaffiliated equipment lease company, secured by fitness equipment which is included in other assets 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.	\$ 17	\$ 16
Total long term borrowings	<u>\$ 17</u>	<u>\$ 16</u>

The Company may purchase federal funds through unsecured federal funds lines of credit with various correspondent banks, which totaled \$72.5 million as of March 31, 2019 and December 31, 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 March 31, 2019 and December 31, 2018.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

The Company has entered into a repurchase agreement with a third party for \$5.0 million as of March 31, 2019 and December 31, 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 March 31, 2019 and December 31, 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. At March 31, 2019 and December 31, 2018, the Company had approximately \$903.9 million and \$849.1 million, respectively, in borrowing capacity available under these agreements. There is no collateral pledged and no advances outstanding as of March 31, 2019 and December 31, 2018.

The Company may borrow funds through the Federal Reserve Bank's discount window. These borrowings are secured by a blanket floating lien on qualifying loans with a balance of \$405.1 million and \$395.2 million as of March 31, 2019 and December 31, 2018, respectively. At March 31, 2019 and December 31, 2018, the Company had approximately \$231.7 million and \$218.0 million, respectively, in borrowing capacity available under these arrangements with no outstanding balance as of March 31, 2019 and December 31, 2018.

**Note 9. Income Taxes**

The Company's effective tax rate is lower than the U.S. statutory rate primarily because of the anticipated effect of investment tax credits during 2019. The Company's effective tax rate in the future will depend on the actual investment tax credits earned as a part of its financing renewable energy applications.

**Note 10. 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 U.S. government agency securities, mortgage-backed securities, obligations of states and political subdivisions and certain corporate, asset backed mutual fund and other securities. In certain cases where there is limited activity or less transparency around inputs to the valuation, securities are classified within Level 3 of the valuation hierarchy.

*Impaired loans:* Impairment of a loan is based on the fair value of the collateral of the loan for collateral-dependent loans. Fair value of the loan's collateral, when the loan is dependent on collateral, is determined by appraisals or independent valuation which is then adjusted for the cost related to liquidation of the collateral. For non-collateral dependent loans, impairment is determined by the present value of expected future cash flows. Impaired loans classified as Level 3 are based on management's judgment and estimation.

*Servicing assets:* Servicing rights do not trade in an active, open market with readily observable prices. While sales of servicing rights do occur, the precise terms and conditions typically are not readily available. Accordingly, the Company estimates the fair value of servicing rights using discounted cash flow models incorporating numerous assumptions from the perspective of a market participant including servicing income, servicing costs, market discount rates and prepayment speeds. Due to the nature of the valuation inputs, servicing rights are classified within Level 3 of the valuation hierarchy.

*Foreclosed assets:* Foreclosed real estate is adjusted to fair value less selling costs upon transfer of the loans to foreclosed real estate. Subsequently, foreclosed real estate is carried at the lower of carrying value or fair value less selling costs. Fair value is based upon independent market prices, appraised values of the collateral or management's estimation of the value of the collateral. Given the lack of observable market prices for identical properties and market discounts applied to appraised values, the Company generally classifies foreclosed assets as nonrecurring Level 3.

*Mutual fund:* The following 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.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

*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 to 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.

**Recurring Fair Value**

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

<b>March 31, 2019</b>	<b>Total</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Investment securities available-for-sale				
US treasury securities	\$ 4,976	\$ —	\$ 4,976	\$ —
US government agencies	48,282	—	48,282	—
Mortgage-backed securities	507,953	—	507,953	—
Municipal bonds <sup>1</sup>	8,528	—	8,435	93
Servicing assets <sup>2</sup>	44,324	—	—	44,324
Mutual fund	2,141	—	2,141	—
Equity warrant assets <sup>3</sup>	782	—	—	782
Total assets at fair value	<u>\$ 616,986</u>	<u>\$ —</u>	<u>\$ 571,787</u>	<u>\$ 45,199</u>

<b>December 31, 2018</b>	<b>Total</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
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 <sup>1</sup>	999	—	—	999
Servicing assets <sup>2</sup>	47,641	—	—	47,641
Mutual fund	2,099	—	2,099	—
Equity warrant assets <sup>3</sup>	527	—	—	527
Total assets at fair value	<u>\$ 430,757</u>	<u>\$ —</u>	<u>\$ 381,590</u>	<u>\$ 49,167</u>

- 1 During the three months ended March 31, 2019, the Company sold \$900 thousand of a municipal bond to a third party and recorded a fair value adjustment of \$7 thousand.
- 2 See Note 7 for a rollforward of recurring Level 3 fair values for servicing assets.
- 3 During the three months ended March 31, 2019, the Company recorded net gains on derivative instruments of \$255 thousand. During the three months ended March 31, 2018, the Company entered into equity warrant assets with a fair value of \$400 thousand at the time of issuance.

**Non-recurring Fair Value**

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

<b>March 31, 2019</b>	<b>Total</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Impaired loans	\$ 106,578	\$ —	\$ —	\$ 106,578
Foreclosed assets	1,374	—	—	1,374
Total assets at fair value	<u>\$ 107,952</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 107,952</u>

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

<b>December 31, 2018</b>	<b>Total</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Impaired loans	\$ 91,230	\$ —	\$ —	\$ 91,230
Foreclosed assets	1,094	—	—	1,094
Total assets at fair value	\$ 92,324	\$ —	\$ —	\$ 92,324

**Level 3 Analysis**

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

**March 31, 2019**

<b>Level 3 Assets with Significant Unobservable Inputs</b>	<b>Fair Value</b>	<b>Valuation Technique</b>	<b>Significant Unobservable Inputs</b>	<b>Range</b>
Municipal bond	\$ 93	Discounted expected cash flows	Discount rate Prepayment speed	4.95% 5.00%
Impaired loans	\$ 106,578	Discounted appraisals Discounted expected cash flows	Appraisal adjustments (1) Interest rate & repayment term	10% to 63% Weighted average discount rate 6.81%
Foreclosed assets	\$ 1,374	Discounted appraisals	Appraisal adjustments (1)	9% to 37%
Equity warrant assets	\$ 782	Monte Carlo simulation	Volatility Risk-free interest rate Marketability discount Remaining life	20.60% 2.69% 20.00% 8 - 10 years

**December 31, 2018**

<b>Level 3 Assets with Significant Unobservable Inputs</b>	<b>Fair Value</b>	<b>Valuation Technique</b>	<b>Significant Unobservable Inputs</b>	<b>Range</b>
Municipal bond	\$ 999	Discounted expected cash flows	Discount rate Prepayment speed	5.14% 5.00%
Impaired loans	\$ 91,230	Discounted appraisals Discounted expected cash flows	Appraisal adjustments (1) Interest rate & repayment term	8% to 48% Weighted average discount rate 6.58%
Foreclosed assets	\$ 1,094	Discounted appraisals	Appraisal adjustments (1)	9% to 37%
Equity warrant assets	\$ 527	Monte Carlo simulation	Volatility 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.

Live Oak Bancshares, Inc.  
Notes to Unaudited Condensed Consolidated Financial Statements

*Estimated Fair Value of Other Financial Instruments*

GAAP also requires disclosure of the fair value of financial instruments carried at book value on the consolidated balance sheet.

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

	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
<b>March 31, 2019</b>					
<b>Financial assets</b>					
Cash and due from banks	\$ 221,159	\$ 221,159	\$ —	\$ —	\$ 221,159
Federal funds sold	64,708	64,708	—	—	64,708
Certificates of deposit with other banks	7,250	7,498	—	—	7,498
Investment securities, available-for-sale	569,739	—	569,646	93	569,739
Loans held for sale	772,481	—	—	784,811	784,811
Loans and leases, net of allowance for loan and lease losses	1,967,013	—	—	1,963,786	1,963,786
Servicing assets	44,324	—	—	44,324	44,324
Accrued interest receivable	18,792	18,792	—	—	18,792
Mutual fund	2,141	—	2,141	—	2,141
Equity warrant assets	782	—	—	782	782
<b>Financial liabilities</b>					
Deposits	3,528,405	—	3,511,520	—	3,511,520
Accrued interest payable	2,341	2,341	—	—	2,341
Short term borrowings	1,393	—	—	1,397	1,397
Long term borrowings	17	—	—	17	17
<b>December 31, 2018</b>					
<b>Financial assets</b>					
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	—	379,491	999	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
Accrued interest receivable	15,895	15,895	—	—	15,895
Mutual fund	2,099	—	2,099	—	2,099
Equity warrant assets	527	—	—	527	527
<b>Financial liabilities</b>					
Deposits	3,149,583	—	3,117,941	—	3,117,941
Accrued interest payable	861	861	—	—	861
Short term borrowings	1,441	—	—	1,441	1,441
Long term borrowings	16	—	—	16	16

Live Oak Bancshares, Inc.  
Notes to Unaudited Condensed Consolidated Financial Statements

**Note 11. 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:

	March 31, 2019	December 31, 2018
Commitments to extend credit	\$ 1,428,502	\$ 1,435,024
Standby letters of credit	2,322	2,150
Airplane purchase agreement commitments	10,450	10,450
Total unfunded off-balance-sheet credit risk	<u>\$ 1,441,274</u>	<u>\$ 1,447,624</u>

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Commitments generally have fixed expiration dates or other termination clauses and may require 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 March 31, 2019 and December 31, 2018, the Company had unfunded commitments to provide capital contributions for on-balance-sheet investments in the amount of \$2.2 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, leases, 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 unguaranteed exposure exceeds \$7.5 million, except for 13 relationships that have a retained unguaranteed exposure of \$150.7 million of which \$108.0 million of the unguaranteed exposure has been disbursed.

Additionally, the Company has future minimum lease payments due under non-cancelable operating leases totaling \$90.9 million, of which \$66.1 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.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

**Note 12. Stock 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 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 the 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. Restricted stock grants vest in equal installments ranging from immediate vesting to over a seven year period from the date of the grant.

**Stock Options**

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 three months ended March 31, 2019 and 2018, the Company recognized \$438 thousand and \$433 thousand in compensation expense for stock options, respectively.

Stock option activity under the Plan during the three month periods ended March 31, 2019 and 2018, 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	3,088	4.40		
Forfeited	12,108	9.56		
Granted	—	—		
Outstanding at March 31, 2019	2,641,659	\$ 11.29	5.75 years	\$ 11,412,834
Exercisable at March 31, 2019	965,122	\$ 10.17	5.51 years	\$ 5,077,915

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Terms	Aggregate Intrinsic Value
Outstanding at December 31, 2017	3,058,459	\$ 11.30		
Exercised	54,254	12.74		
Forfeited	57,629	14.94		
Granted	—	—		
Outstanding at March 31, 2018	2,946,576	\$ 11.20	6.77 years	\$ 48,921,416
Exercisable at March 31, 2018	806,424	\$ 9.36	6.48 years	\$ 14,872,227

The following is a summary of non-vested stock option activity for the Company for the three months ended March 31, 2019 and 2018.

	Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2018	1,839,830	\$ 4.60
Granted	—	—
Vested	(151,185)	1.99
Forfeited	(12,108)	9.56
Non-vested at March 31, 2019	1,676,537	\$ 11.93



**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

	Shares		Weighted Average Grant Date Fair Value
Non-vested at December 31, 2017	2,364,999	\$	4.65
Granted	—		—
Vested	(167,218)		2.86
Forfeited	(57,629)		7.07
Non-vested at March 31, 2018	2,140,152	\$	4.83

The total intrinsic value of options exercised at March 31, 2019 and 2018, was \$32 thousand and \$768 thousand, respectively.

At March 31, 2019, unrecognized compensation costs relating to stock options amounted to \$5.5 million which will be recognized over a weighted average period of 3.3 years.

The weighted average fair value of each stock option grant is estimated on the date of grant using the Black-Scholes option-pricing model. The expected volatility is based on historical volatility. The risk-free interest rates for periods within the contractual life of the awards are based on the U.S. Treasury yield curve in effect at the time of the grant. The expected life is based on historical exercise experience. The dividend yield assumption is based on the Company's history and expectation of dividend payouts. There were no stock options granted during the three months ended March 31, 2019 and 2018.

***Restricted Stock***

Restricted stock awards are authorized in the form of restricted stock awards or units ("RSU"s) and restricted stock awards or units with a market price condition ("Market RSU"s).

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 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 expiration date. 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.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

RSU stock activity under the Plan during the first three months of 2019 is summarized below.

	Shares		Weighted Average Grant Date Fair Value
Non-vested at December 31, 2018	388,187	\$	23.85
Granted	34,417		15.43
Vested	(3,443)		25.73
Forfeited	(2,574)		25.44
Non-vested at March 31, 2019	416,587	\$	23.13

For the three months ended March 31, 2019 and 2018, the Company recognized \$537 thousand and \$915 thousand in compensation expense for RSUs, respectively.

At March 31, 2019, unrecognized compensation costs relating to RSUs amounted to \$8.2 million which will be recognized over a weighted average period of 5.0 years.

Market RSU stock activity under the Plan during the first three months of 2019 is summarized below.

	Shares		Weighted Average Grant Date Fair Value
Non-vested at December 31, 2018	2,709,202	\$	9.87
Granted	500,000		4.22
Vested	—		—
Forfeited	(9,847)		9.67
Non-vested at March 31, 2019	3,199,355	\$	7.12

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 2.60 years to 3.20 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 modification, the Company recognized additional compensation expense of \$68 thousand for the three months ended March 31, 2019.

For the three months ended March 31, 2019 and 2018, the Company recognized \$1.9 million and \$972 thousand in compensation expense for Market RSUs, respectively.

At March 31, 2019, unrecognized compensation costs relating to Market RSUs amounted to \$17.4 million which will be recognized over a weighted average period of 2.4 years.

**Live Oak Bancshares, Inc.**  
**Notes to Unaudited Condensed Consolidated Financial Statements**

**Employee Stock Purchase Plan**

The Company adopted an Employee Stock Purchase Plan on October 8, 2014. On May 24, 2016, the plan was amended and the Amended and Restated Employee Stock Purchase Plan (the "ESPP") became effective within the meaning of Section 423 of the Internal Revenue Code of 1986, as amended. Under the ESPP, 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 the ESPP 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. For the three months ended March 31, 2019 and 2018, the Company recognized \$32 thousand and \$29 thousand, respectively.

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following presents management's discussion and analysis of the financial condition and results of operations of Live Oak Bancshares, Inc. (the "Company" or "LOB"). This discussion should be read in conjunction with the financial statements and related notes included elsewhere in this quarterly report on Form 10-Q and with the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018 (the "2018 Annual Report"). Results of operations for the periods included in this quarterly report on Form 10-Q are not necessarily indicative of results to be obtained during any future period.

### Important Note Regarding Forward-Looking Statements

This quarterly report on Form 10-Q 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 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," "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 quarterly report on Form 10-Q. 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 quarterly report on Form 10-Q 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 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, 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;
- 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 in the Company's 2018 Annual 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.

Amounts in all tables in Management's Discussion and Analysis of Financial Condition and Results of Operations have been presented in thousands, except percentage, time period, stock option, share and per share data or where otherwise indicated.

### *Nature of Operations*

LOB is a bank holding company headquartered in Wilmington, North Carolina incorporated under the laws of North Carolina in December 2008. The Company conducts business operations primarily through its commercial bank subsidiary, Live Oak Banking Company (the "Bank"). The Bank was incorporated in February 2008 as a North Carolina-chartered commercial bank. The Bank specializes in providing lending services to small businesses nationwide. The Bank identifies and grows within selected industry sectors, or verticals, by leveraging 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 SBA under the 7(a) Loan Program and the U.S. Department of Agriculture ("USDA") Rural Energy for America Program ("REAP") and Business & Industry ("B&I") and Water & Waste Disposal ("WEP") loan programs.

Effective July 29, 2016, the Company elected to become a “financial holding company” within the meaning of the Bank Holding Company Act. A financial holding company, and the nonbank companies under its control, are permitted to engage in activities considered financial in nature or incidental to financial activities. For the Company to become and remain eligible for financial holding company status, it and the Bank must meet certain criteria, including capital, management and Community Reinvestment Act (“CRA”) requirements. The failure to meet such criteria could, depending on which requirements were not met, result in the Company facing restrictions on new financial activities or acquisitions or being required to discontinue existing activities that are not otherwise permissible for bank holding companies.

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 immediate impacts through the reclassification of \$80.3 million in guaranteed loans from held-for-sale to held-for-investment status. Other effects of this change began to be reflected in the financial statements in the fourth quarter of 2018 and first quarter of 2019 with significantly fewer loans sold during the respective quarters and the consequential effect of increased net interest income.

In 2018, the Bank formed Live Oak Private Wealth, LLC, a registered investment advisor that provides high-net-worth individuals and families with strategic wealth and investment management services and 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 services technology companies. 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 2016, the Company formed Live Oak Clean Energy Financing LLC (“LOCEF”), for the purpose of providing financing to entities for renewable energy applications. During the three months ended March 31, 2019, LOCEF became a subsidiary of the Bank. 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.

The Company generates revenue primarily from net interest income and the 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.

## **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.

We believe our strategic decision to retain a larger portion of loans eligible for sale on our balance sheet will reduce future earnings volatility and maximize long-term profitability. Notwithstanding this decision, we anticipate that gains on the sale of loans will comprise a diminishing component of our revenue in 2019. Management anticipates that the Company’s held-for-sale and held-for-investment loan portfolios will continue to grow as a result of ongoing origination volumes and higher levels of loan retention intended to promote long-term recurring revenue and profitability, including the continued pursuit of potential opportunities in conventional lending outside of SBA or other government guarantee programs.

## Results of Operations

### *Performance Summary*

*Three months ended March 31, 2019 compared with three months ended March 31, 2018*

For the three months ended March 31, 2019, the Company reported net income of \$2.4 million, or \$0.06 per diluted share, as compared to \$12.5 million, or \$0.30 per diluted share, for the first quarter of 2018. This decrease in net income is primarily due to the following items:

- The Company's strategic shift in the latter part of 2018 to hold substantially more of its eligible-for-sale production on balance sheet to maximize long-term profitability resulted in lower net income in the near-term by decreasing net gains on sales of loans by \$20.2 million, or 82.8%. The volume of guaranteed loan sales in the first quarter of 2019 declined to \$62.9 million compared to \$247.2 million in the first quarter of 2018;
- Title insurance income decreased \$1.3 million due to the Company's sale of its title insurance business in August of 2018;
- Salaries and employee benefits increased \$1.6 million, or 8.1%, primarily in support of the Company's ongoing growth initiatives; and

The primary factors partially offsetting the above decrease in net income were:

- Increase in net interest income of \$6.1 million, or 25.0%, predominately driven by the above referenced strategic growth in loan and lease portfolios combined with higher investment security holdings and interest rates rising;
- A decrease in the provision for loan and lease losses of \$1.7 million, or 37.6%, largely the result of growth in the first quarter being comprised principally of guaranteed loans combined with decreased levels of net charge-offs; and
- Net negative loan servicing revaluation decreased by \$2.8 million, or 55.9%, principally due to improving secondary market premiums.

### ***Net Interest Income and Margin***

Net interest income represents the difference between the income that the Company earns on interest-earning assets and the cost it incurs on 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. 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." Without a branch network, the Bank generates 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 that the Bank offers are generally above the industry average.

#### *Three months ended March 31, 2019 compared with three months ended March 31, 2018*

For the three months ended March 31, 2019, net interest income increased \$6.1 million, or 25.0%, to \$30.6 million compared to \$24.5 million for the three months ended March 31, 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 deploy liquidity while improving the asset-liability repricing mix. Average interest earning assets increased by \$744.9 million, or 27.9%, to \$3.42 billion for the three months ended March 31, 2019, compared to \$2.67 billion for the three months ended March 31, 2018, while the yield on average interest earning assets increased sixty-one basis points to 5.93%. The cost of funds on interest bearing liabilities for the three months ended March 31, 2019 increased sixty-eight basis points to 2.38%, and the average balance of interest bearing liabilities increased by \$776.1 million, or 30.8%, over the same period in 2018. As indicated in the rate/volume table below, the increase in interest earning assets and corresponding yields outpaced the higher volume and increased cost of interest bearing liabilities, resulting in increased interest income of \$14.9 million and increased interest expense of \$8.8 million for the three months ended March 31, 2019 compared to the three months ended March 31, 2018. For the three months ended March 31, 2018 compared to the three months ended March 31, 2019, net interest margin declined from 3.72% to 3.63%, respectively, principally due to the narrowing of the interest rate spread during the quarter. This compression of the spread was largely the result of the increasing rates of interest bearing deposits outpacing the increase of loan 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 and annualizing that result. Loan fees are included in interest income on loans.

	Three Months Ended March 31,					
	2019			2018		
	Average Balance	Interest	Average Yield/Rate	Average Balance	Interest	Average Yield/Rate
<b>Interest earning assets:</b>						
Federal funds sold and interest earning balances in other banks	\$ 283,364	\$ 1,639	2.35%	\$ 354,028	\$ 1,215	1.39%
Investment securities	461,339	3,317	2.92	181,900	1,117	2.49
Loans held for sale	749,700	12,583	6.81	727,696	11,046	6.16
Loans and leases held for investment <sup>(1)</sup>	1,922,280	32,383	6.83	1,408,112	21,645	6.23
Total interest earning assets	3,416,683	49,922	5.93	2,671,736	35,023	5.32
Less: Allowance for loan and lease losses	(32,464)			(24,219)		
Non-interest earning assets	476,232			396,920		
Total assets	\$ 3,860,451			\$ 3,044,437		
<b>Interest bearing liabilities:</b>						
Interest bearing checking	\$ 169	\$ —	—%	\$ 43,597	\$ 103	0.96%
Savings	927,579	4,786	2.09	822,266	3,118	1.54
Money market accounts	83,298	108	0.53	168,954	521	1.25
Certificates of deposit	2,282,709	14,423	2.56	1,473,054	6,676	1.84
Total deposits	3,293,755	19,317	2.38	2,507,871	10,418	1.68
Other borrowings	1,464	—	—	11,228	129	4.66
Total interest bearing liabilities	3,295,219	19,317	2.38	2,519,099	10,547	1.70
Non-interest bearing deposits	46,822			56,596		
Non-interest bearing liabilities	14,449			19,022		
Shareholders' equity	503,961			449,720		
Total liabilities and shareholders' equity	\$ 3,860,451			\$ 3,044,437		
Net interest income and interest rate spread		\$ 30,605	3.55%		\$ 24,476	3.62%
Net interest margin			3.63%			3.72%
Ratio of average interest-earning assets to average interest-bearing liabilities			103.69%			106.06%

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

*Rate/Volume Analysis.* The following table sets forth the effects of changing rates and volumes on net interest income. The rate column shows the effects attributable to changes in rate (changes in rate multiplied by prior volume). The volume column shows the effects attributable to changes in volume (changes in volume multiplied by prior rate). The total column represents the sum of the prior columns. For purposes of this table, increases or decreases 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.

	Three Months Ended March 31,		
	2019 vs. 2018		
	Increase (Decrease) Due to		
	Rate	Volume	Total
<b>Interest income:</b>			
Federal funds sold and interest earning balances in other banks	\$ 750	\$ (326)	\$ 424
Investment securities	337	1,863	2,200
Loans held for sale	1,185	352	1,537
Loans and leases held for investment	2,455	8,283	10,738
Total interest income	4,727	10,172	14,899
<b>Interest expense:</b>			
Interest bearing checking	(52)	(51)	(103)
Savings	1,197	471	1,668
Money market accounts	(225)	(188)	(413)
Certificates of deposit	3,354	4,393	7,747
Other borrowings	(73)	(56)	(129)
Total interest expense	4,201	4,569	8,770
Net interest income	\$ 526	\$ 5,603	\$ 6,129

#### ***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 and lease growth, credit risk rating trends, nonperforming loan and lease levels, delinquencies, loan and lease portfolio concentrations and economic and market trends.

Losses inherent in loan relationships are mitigated if a portion of the loan is guaranteed by the SBA or USDA. A typical SBA 7(a) loan carries a 75% guarantee while USDA guarantees range from 60% to 80% depending on loan size, which serve to reduce the risk profile of these loans. The Company believes that its focus on compliance with regulations and guidance from the SBA and USDA are key factors to managing this risk.

For the first quarter of 2019 the provision for loan and lease losses was \$2.7 million compared to \$4.4 million for the same period in 2018, a decrease of \$1.7 million, or 37.6%. The decrease in the provision for loan and lease losses compared to the prior year quarter was primarily largely the result of first quarter growth being comprised principally of guaranteed loans combined with decreased levels of net charge-offs.

Loans and leases held for investment were \$2.00 billion as of March 31, 2019, increasing by \$560.0 million, or 38.8%, compared to March 31, 2018. This growth was fueled by strong loan origination volumes and the above referenced strategic shift to retain substantially more loans on the balance sheet.

Net charge-offs were \$65 thousand, or 0.01% of average quarterly loans and leases held for investment on an annualized basis, for the three months ended March 31, 2019, compared to \$532 thousand, or 0.15%, for the three months ended March 31, 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 March 31, 2019, nonperforming loans and leases not guaranteed by the SBA totaled \$20.2 million, which was 1.01% of the held-for-investment loan and lease portfolio compared to \$7.4 million, or 0.51% of loans and leases held for investment at March 31, 2018.

### **Noninterest Income**

Noninterest income is principally comprised of net gains from the sale of SBA and USDA-guaranteed loans along with loan servicing revenue and related revaluation. Revenue from the sale of loans depends upon the volume, maturity structure and rates of underlying loans as well as the pricing 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. Noninterest income also commonly includes lease income, construction supervision fee income and in prior periods title insurance income. 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.

	Three Months Ended March 31,		2019/2018 Increase (Decrease)	
	2019	2018	Amount	Percent
<b>Noninterest income</b>				
Loan servicing revenue	\$ 7,410	\$ 6,898	\$ 512	7.42%
Loan servicing asset revaluation	(2,246)	(5,088)	2,842	55.86
Net gains on sales of loans	4,198	24,418	(20,220)	(82.81)
Gain on sale of investment securities available-for-sale	5	—	5	100.00
Lease income	2,325	1,608	717	44.59
Construction supervision fee income	779	779	—	—
Title insurance income	—	1,300	(1,300)	(100.00)
Other noninterest income	556	841	(285)	(33.89)
<b>Total noninterest income</b>	<b>\$ 13,027</b>	<b>\$ 30,756</b>	<b>\$ (17,729)</b>	<b>(57.64)%</b>

For the three months ended March 31, 2019, noninterest income decreased by \$17.7 million, or 57.6%, compared to the three months ended March 31, 2018. The decrease from the prior year is primarily the result of the aforementioned strategic decision to sell fewer loans, resulting in net gains on sales of loans declining to \$4.2 million in the first quarter of 2019 compared to \$24.4 million in the first quarter of 2018, a reduction of \$20.2 million, or 82.8%.

Also impacting the overall decrease in noninterest income was a decline in title insurance income of \$1.3 million due to the sale of the title insurance business in third quarter of 2018.

Partially offsetting the overall decrease in noninterest income was a \$2.8 million, or 55.9%, decrease in the net negative loan servicing revaluation principally due to improving secondary market premiums, combined with increased lease income from solar panels of \$717 thousand, or 44.6%, related to growth in operating lease originations.

The following table reflects loan and lease production, sales of guaranteed loans and the aggregate balance in guaranteed loans sold. These components are key drivers of the Company's noninterest income.

	Three Months Ended March, 31		For Years ended December 31,			
	2019	2018	2018	2017	2016	2015
Amount of loans originated	\$ 390,851	\$ 397,559	\$ 1,765,680	\$ 1,934,238	\$ 1,537,010	\$ 1,158,640
Guaranteed portions of loans sold	62,940	247,243	945,178	787,926	761,933	640,886
Outstanding balance of guaranteed loans sold (1)	2,952,774	2,812,108	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 all loans that the Bank originates, including loans sold, are retained by the Bank. In exchange for continuing to service loans that are sold, the Bank receives fee income represented in loan servicing revenue equivalent to one percent of the outstanding balance of SBA loans sold and 0.40% of the outstanding balance of USDA loans sold. In addition, the cost of servicing sold loans is approximately 0.40% of the balance of the loans sold, which is included in the loan servicing revaluation computations. Unrecognized servicing revenue is reflected in a servicing asset recorded on the consolidated balance sheet. Revenues associated with the servicing of loans are recognized over the expected life of the loan through the consolidated income statement, and the servicing asset is reduced as this revenue is recognized. For the three months ended March 31, 2019, loan servicing revenue increased \$512 thousand or 7.4%, as compared to the three months ended March 31, 2018, as a result of an increase in the average outstanding balance of guaranteed loans sold. At March 31, 2019, the outstanding balance of government guaranteed loans sold in the secondary market was \$2.95 billion compared to \$2.81 billion at March 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 three months ended March 31, 2019, there was a net negative loan servicing revaluation adjustment of \$2.2 million compared to a net negative adjustment of \$5.1 million for the three months ended March 31, 2018. The lower amount for the first quarter of 2019 as compared to the first quarter of 2018 was primarily a result of improving secondary market premiums.

*Net Gains on Sale of Loans:* For the three months ended March 31, 2019, net gains on sales of loans decreased \$20.2 million, or 82.8%, compared to the three months ended March 31, 2018. For the three months ended March 31, 2019, the volume of guaranteed loans sold decreased \$184.3 million, or 74.5%, to \$62.9 million from \$247.2 million for the three months ended March 31, 2018. The volume-driven decrease in the year-over-year net gain on loan sale comparison was further magnified by lower average premiums paid in the secondary market in the first quarter of 2019 compared with the first quarter of 2018. Excluding fair value fluctuations in exchange traded-interest rate lock commitments, the average net gain on sale of loans for the three months ended March 31, 2019 was lower at \$89 thousand for each \$1 million in loans sold, compared to \$99 thousand for the three months ended March 31, 2018, respectively.

#### ***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.

	Three Months Ended March 31,		2019/2018 Increase (Decrease)	
	2019	2018	Amount	Percent
<b>Noninterest expense</b>				
Salaries and employee benefits	\$ 21,855	\$ 20,209	\$ 1,646	8.14%
Non-staff expenses:				
Travel expense	1,200	1,843	(643)	(34.89)
Professional services expense	2,182	1,298	884	68.10
Advertising and marketing expense	1,364	1,662	(298)	(17.93)
Occupancy expense	1,609	1,857	(248)	(13.35)
Data processing expense	2,399	2,837	(438)	(15.44)
Equipment expense	3,325	3,077	248	8.06
Other loan origination and maintenance expense	1,639	1,329	310	23.33
FDIC insurance	635	572	63	11.01
Title insurance closing services expense	—	426	(426)	(100.00)
Other expense	1,993	2,962	(969)	(32.71)
Total non-staff expenses	16,346	17,863	(1,517)	(8.49)
<b>Total noninterest expense</b>	<b>\$ 38,201</b>	<b>\$ 38,072</b>	<b>\$ 129</b>	<b>0.34%</b>

Total noninterest expense for the three months ended March 31, 2019 increased \$129 thousand, or 0.3%, compared to the same period in 2018. This small increase in noninterest expense was principally comprised of increased personnel to support the Company's growth initiatives and professional services principally related to the formation of venture funds underlying its recently formed Canapi Advisors subsidiary. Changes in various components of noninterest expense are discussed below.

*Salaries and employee benefits:* Total personnel expense for the three months ended March 31, 2019 increased by \$1.6 million, or 8.1%, compared to the same period in 2018 primarily due to the continued investment in human capital to support the growing loan and lease production from new and existing verticals. The increase in personnel expense was mitigated by the Company's exit from the title insurance business during the third quarter of 2018, which reduced the full-time equivalent employee count by 33. Total full-time equivalent employees decreased from 517 at March 31, 2018 to 507 at March 31, 2019. Salaries and employee benefits expense included \$2.9 million of stock-based compensation expense in the three months ended March 31, 2019 and \$2.3 million for the three months ended March 31, 2018. 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, \$352 thousand for both the first quarter of 2019 and 2018 was related to restricted stock unit ("RSU") awards for key employee retention with an effective grant date of May 24, 2016.

*Professional services expense:* For the three months ended March 31, 2019, total professional services expense increased \$884 thousand, or 68.1%, compared to the same period in 2018. This increase was driven by legal fees incurred in the Company's formation of venture funds associated with its Canapi Advisors subsidiary.

*Other expense:* For the three months ended March 31, 2019, other expense decreased \$969 thousand, or 32.7%, compared to the same period in 2018. This decrease was primarily a product of reduced costs related to operation of the title insurance business which was subsequently sold in the third quarter of 2018 combined with lower levels of charitable contributions in the first quarter of 2019.

#### **Income Tax Expense**

The effective tax rate for the three months ended March 31, 2019 was 11.8% compared to the effective rate of 2.5% for the same period in 2018. The Company's effective tax rate is predominantly driven by the leasing of renewable energy assets which generate investment tax credits.

## Discussion and Analysis of Financial Condition

*March 31, 2019 vs. December 31, 2018*

Total assets at March 31, 2019 were \$4.06 billion, an increase of \$387.6 million, or 10.6%, compared to total assets of \$3.67 billion at December 31, 2018. The growth in total assets was principally driven by the following:

- Increased investment securities available-for-sale which was driven by significant growth from deposit gathering campaigns that generated \$378.8 million in new deposits to enhance contingency funding sources and asset-liability pricing mix; and
- Growth in loans and leases held for sale and held for investment of \$243.8 million resulting from strong first quarter originations and higher levels of balances being retained to support the Company's strategic plan to hold more loans.

Cash and cash equivalents, comprised of cash and due from banks and federal funds sold, was \$285.9 million at March 31, 2019, a decrease of \$31.0 million, or 9.8%, compared to \$316.8 million at December 31, 2018. This decrease reflects the Company's maximization of returns on liquid assets by deployment of funds into higher-yielding available-for-sale securities.

Total investment securities increased \$189.2 million during the first quarter of 2019, from \$380.5 million at December 31, 2018, to \$569.7 million at March 31, 2019, an increase of 49.7%. The Company increased its investment securities position during the first quarter of 2019 as part of its strategy to improve the returns of an enhanced liquidity profile and improve asset-liability repricing mix. At March 31, 2019, the investment portfolio was comprised of U.S. treasury, U.S. government agency, mortgage-backed securities and municipal bonds.

Loans held for sale increased \$85.1 million, or 12.4%, during the first three months of 2019, from \$687.4 million at December 31, 2018, to \$772.5 million at March 31, 2019. This increase reflected the impact of a significantly lower volume of loan sales with strong origination activity during the quarter.

Loans and leases held for investment increased \$158.7 million, or 8.6%, during the first three months of 2019, from \$1.84 billion at December 31, 2018, to \$2.00 billion at March 31, 2019. The increase was primarily the result of \$390.9 million in loan and lease origination activities during the first quarter of 2019 combined with the earlier mentioned strategic shift to retain higher levels of loans on the balance sheet.

Premises and equipment, net, increased \$9.3 million, or 3.5%, during the first three months of 2019 which was primarily driven by construction of new facilities and infrastructure to accommodate Company growth and the addition of solar panels to meet leasing commitments.

Servicing assets decreased \$3.3 million, or 7.0%, during the first three months of 2019 due to the reduced level of loan sales during the quarter combined with amortization of the outstanding balance of guaranteed loans sold. At March 31, 2019, the outstanding balance of government guaranteed loans sold in the secondary market was \$2.95 billion compared to \$3.05 billion at December 31, 2018.

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. Basis of Presentation and Note 6. Leases for more information on the adoption of this new standard.

Other assets decreased \$20.2 million, or 12.9% from \$156.2 million at December 31, 2018 to \$136.1 million at March 31, 2019. This decrease was principally the result of a reduction in taxes receivable of \$14.6 million, largely comprised of a recent tax refund, and the sale of corporate aircraft carried at \$10.5 million which was classified as held-for-sale during the fourth quarter of 2018.

Total deposits were \$3.53 billion at March 31, 2019, an increase of \$378.8 million, or 12.0%, 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.

Shareholders' equity at March 31, 2019 was \$500.4 million as compared to \$493.6 million at December 31, 2018. The book value per share was \$12.45 at March 31, 2019 compared to \$12.29 at December 31, 2018. Average equity to average assets was 13.1% for the three months ended March 31, 2019 compared to 13.8% for the full year ended December 31, 2018. The increase in shareholders' equity was principally the result of net income to common shareholders for the three months ended March 31, 2019 of \$2.4 million combined with other comprehensive income of \$2.7 million and stock-based compensation expense of \$2.9 million, partially offset by \$1.2 million in dividends.

### 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 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 them that the timely collection of principal or interest is not probable. When a loan is placed on nonaccrual status, any interest previously accrued as income but not actually collected is reversed and recorded as a reduction of loan interest and fee income. Typically, collections of interest and principal received on a nonaccrual loan are applied to the outstanding principal as determined at the time of collection of the loan.

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, the transfer of assets or the issuance of equity interests by the debtor to satisfy all or part of the debt, modification of the terms of debt or the substitution or addition of debtor(s).

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

	March 31, 2019	December 31, 2018
Nonaccrual loans:		
Total nonperforming loans (all on nonaccrual)	\$ 70,692	\$ 57,690
Total accruing loans past due 90 days or more	—	—
Foreclosed assets	1,374	1,094
Total troubled debt restructurings	33,110	27,495
Less nonaccrual troubled debt restructurings	(6,370)	(6,494)
Total performing troubled debt restructurings	26,740	21,001
<b>Total nonperforming assets and troubled debt restructurings</b>	<b>\$ 98,806</b>	<b>\$ 79,785</b>
Total nonperforming loans to total loans held for investment	3.53%	3.13%
Total nonperforming loans to total assets	1.74%	1.57%
Total nonperforming assets and troubled debt restructurings to total assets	2.43%	2.17%

	March 31, 2019	December 31, 2018
Nonaccrual loans guaranteed by U.S. government:		
Total nonperforming loans guaranteed by the SBA (all on nonaccrual)	\$ 50,507	\$ 43,202
Total accruing loans past due 90 days or more guaranteed by the SBA	—	—
Foreclosed assets guaranteed by the SBA	1,204	946
Total troubled debt restructurings guaranteed by the SBA	22,499	19,780
Less nonaccrual troubled debt restructurings guaranteed by the SBA	(5,576)	(5,684)
Total performing troubled debt restructurings guaranteed by SBA	16,923	14,096
<b>Total nonperforming assets and troubled debt restructurings guaranteed by the SBA</b>	<b>\$ 68,634</b>	<b>\$ 58,244</b>
Total nonperforming loans not guaranteed by the SBA to total held for investment loans	1.01%	0.79%
Total nonperforming loans not guaranteed by the SBA to total assets	0.50%	0.39%
Total nonperforming assets and troubled debt restructurings not guaranteed by the SBA to total assets	0.74%	0.59%

Total nonperforming assets and troubled debt restructurings at March 31, 2019 were \$98.8 million, which represented a \$19.0 million, or 23.8%, increase from December 31, 2018. Total nonperforming assets at March 31, 2019 were comprised of \$70.7 million in nonaccrual loans and \$1.4 million in foreclosed assets. Of the \$98.8 million of nonperforming assets and troubled debt restructurings ("TDRs"), \$68.6 million carried an SBA guarantee, leaving an unguaranteed exposure of \$30.2 million in total nonperforming assets and TDRs at March 31, 2019. This represents an increase of \$8.6 million, or 40.1%, from an unguaranteed exposure of \$21.5 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 15.6% at March 31, 2019, compared to 14.8% 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 March 31, 2019 and December 31, 2018 were 4.4% and 3.7%, respectively.

As of March 31, 2019, and December 31, 2018, potential problem and impaired loans and leases totaled \$170.1 million and \$148.0 million, respectively. Risk Grades 5 through 8 represent the spectrum of criticized and impaired loans and leases. At March 31, 2019, the portion of criticized loans and leases guaranteed by the SBA or USDA totaled \$82.9 million resulting in unguaranteed exposure risk of \$87.1 million, or 5.4% of total held for investment unguaranteed exposure. This compares to the December 31, 2018 portion of criticized loans and leases guaranteed by the SBA or USDA which totaled \$69.3 million resulting in unguaranteed exposure risk of \$78.7 million, or 5.1% of total held for investment unguaranteed exposure. As of March 31, 2019, loans and leases in Healthcare, Other Industries, Agriculture and Independent Pharmacies verticals comprise the largest portion of the total potential problem and impaired loans at 25.4%, 24.5%, 15.9% and 13.9%, respectively. With 24.5% of total potential problem and impaired loans and leases in the Other Industries, 9.1% was related to Wine and Craft Beverage and 8.0% was related to Hotel industries. 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. With 18.6% of total potential problem and impaired loans and leases in the Other Industries, 8.7% was related to Government Contractors and 6.8% was related to Wine and Craft Beverage industries. No systemic issues were identified in the first three months of 2019. The increase in potential problem and impaired loans and leases, which were comprised of a relatively small number of borrowers, was 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.

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 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 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, Risk Grade 5. For example, at March 31, 2019, and December 31, 2018, Risk Grade 5 loans and leases totaled \$74.1 million and \$65.5 million, respectively. The increase in Risk Grade 5 loans during the first three months of 2019 was principally confined to nine relationships across three verticals; Wine and Craft Beverage (\$3.5 million or 40.1% of increase), Agriculture (\$3.2 million or 37.0% of increase) and Healthcare (\$1.6 million or 18.9% of increase). In addition, enhancements made to the equipment leasing risk grading methodology resulted in several Self Storage equipment leases being downgraded to Risk Grade 5. These increases were somewhat offset by a decrease in Government Contracting (\$4.6 million). The increase in risk grade 5 loans in 2019 was due to the continued maturity of these verticals. At March 31, 2019, approximately 96.9% 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, 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 potential losses in the portfolio. Loan and lease losses are charged against the ALLL when management believes that the collectability of the principal loan and 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 the borrower’s 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 or 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 homogeneous 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 \$2.7 million, or 8.3%, to \$35.1 million at March 31, 2019. The ALLL, as a percentage of loans and leases held for investment, amounted to 1.8% at both March 31, 2019 and December 31, 2018. The increase in the allowance for loan and lease losses was largely attributable to continued growth in the loan and lease portfolio, with the magnitude somewhat softened by the greater levels of guaranteed loan production combined with decreased levels of charge-offs in the first quarter, as addressed more fully in the Provision for Loan and Lease Losses section of Results of Operations. General reserves as a percentage of non-impaired loans amounted to 1.27% at March 31, 2019 and 1.34% at December 31, 2018. See the aforementioned Provision for Loan and Lease Losses section for a discussion of the Company’s charge-off experience.

Actual past due held for investment loans and leases have decreased by \$7.1 million since December 31, 2018. Of this decrease, \$7.9 million was related to a single loan which was temporarily past due at year end and returned to current status early in the first quarter of 2019. Excluding this single loan, total past dues increased \$810 thousand since December 31, 2018. Total loans 90 or more days past due increased \$6.2 million, or 15.2%, compared to December 31, 2018, with \$3.1 million of that increase being comprised of unguaranteed loans and leases. At March 31, 2019 and December 31, 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. The overall decrease in past dues during the first three months of 2019 is principally a result of the above single loan incident with elements influencing the otherwise increase in past dues reflected in the earlier discussed growth in classified and special mention loans during the same period. Management continues to actively monitor and work to improve asset quality. Management believes the ALLL of \$35.1 million at March 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 will not be required. No assurance can be given that management’s ongoing evaluation of the loan and lease portfolio in light of changing economic conditions and other relevant circumstances will not require significant future additions to the ALLL, thus adversely affecting the Company’s operating results. Additional information on the ALLL is presented in Note 5 - Loans and Leases Held for Investment and Allowance for Loan and Lease Losses of the Notes to the Unaudited Condensed Consolidated Financial Statements in this report.

## 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. At March 31, 2019, the total amount of these four items was \$1.22 billion, or 30.0% of total assets, an increase of \$174.4 million from \$1.04 billion, or 28.4% of total assets, at December 31, 2018.

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

At March 31, 2019, none of the investment securities portfolio was pledged to secure public deposits or pledged to retail repurchase agreements, while \$100 thousand was pledged for trust activities in the State of Ohio, leaving \$569.6 million available as lendable collateral.

## Contractual Obligations

The following table presents the Company's significant fixed and determinable contractual obligations by payment date as of March 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
<b>Contractual Obligations</b>					
Deposits without stated maturity	\$ 1,118,043	\$ 1,118,043	\$ —	\$ —	\$ —
Time deposits	2,410,362	1,772,792	500,144	72,652	64,774
Short term borrowings	1,393	1,393	—	—	—
Long term borrowings	17	5	9	3	—
Operating lease obligations	2,075	875	742	361	97
Total	<u>\$ 3,531,890</u>	<u>\$ 2,893,108</u>	<u>\$ 500,895</u>	<u>\$ 73,016</u>	<u>\$ 64,871</u>

1 The following obligations only include base rent and does not include any additional payments such as taxes, insurance, maintenance and repairs or common area maintenance.

As of March 31, 2019, and December 31, 2018, the Company had unfunded commitments to provide capital contributions for on-balance sheet investments in the amount of \$2.2 million and \$2.8 million, respectively.

## 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 asset and liability repricing timing differences as of the report date and does not address earnings, market value nor growth. 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.

The balance sheet is asset-sensitive with a total cumulative gap position of 2.1% at March 31, 2019. The asset sensitivity is relatively stable from the prior quarter. 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 by match funding assets and liabilities with similar 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 and 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 March 31, 2019 and December 31, 2018, 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
<b>Consolidated - March 31, 2019</b>						
Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 473,279	16.68%	\$ 127,661	4.50%	N/A	N/A
Total Capital (to Risk-Weighted Assets)	\$ 508,390	17.92%	\$ 226,953	8.00%	N/A	N/A
Tier 1 Capital (to Risk-Weighted Assets)	\$ 473,279	16.68%	\$ 170,215	6.00%	N/A	N/A
Tier 1 Capital (to Average Assets)	\$ 473,279	12.34%	\$ 153,455	4.00%	N/A	N/A
<b>Bank - March 31, 2019</b>						
Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 419,153	14.89%	\$ 126,674	4.50%	\$ 182,973	6.50%
Total Capital (to Risk-Weighted Assets)	\$ 454,264	16.14%	\$ 225,198	8.00%	\$ 281,497	10.00%
Tier 1 Capital (to Risk-Weighted Assets)	\$ 419,153	14.89%	\$ 168,898	6.00%	\$ 225,198	8.00%
Tier 1 Capital (to Average Assets)	\$ 419,153	11.02%	\$ 152,127	4.00%	\$ 190,159	5.00%
<b>Consolidated - December 31, 2018</b>						
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
<b>Bank - December 31, 2018</b>						
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%

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

## 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 Unaudited Condensed Consolidated Financial Statements in this report, 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 combination 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.

### **Item 3. Quantitative and Qualitative Disclosures About Market Risk**

Management considers interest rate risk the most significant market risk. Interest rate risk is the exposure to adverse changes in net interest income due to changes in interest rates. Consistency of net interest income is largely dependent upon the effective management of interest rate risk.

The Company's Asset/Liability Management Committee ("ALCO"), which includes senior management representatives and reports to the Board of Directors, monitors and manages interest rate risk. See "Asset/Liability Management and Interest Rate Sensitivity" in Item 2 of this Form 10-Q for further discussion.

The objective of asset/liability management is the maximization of net interest income within the Company's risk guidelines. This objective is accomplished through management of the balance sheet composition, maturities, liquidity, and interest rate risk exposures arising from changing economic conditions, interest rates and customer preferences.

To identify and manage its interest rate risk, the Company employs an earnings simulation model to analyze net interest income sensitivity to changing interest rates. The model is based on contractual cash flows and repricing characteristics and incorporates market-based assumptions regarding the effect of changing interest rates on the prepayment rates of certain assets and liabilities. The model also includes management projections for activity levels in each of the product lines offered by the Bank. Assumptions are inherently uncertain, and the measurement of net interest income or the impact of rate fluctuations on net interest income cannot be precisely predicted. Actual results may differ materially from simulated results due to timing, magnitude, and frequency of interest rate changes as well as changes in market conditions and management strategies.

### **Item 4. Controls and Procedures**

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

An evaluation of the Company's disclosure controls and procedures (as defined in Rules 13(a)-15(e) and 15(d)-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")), was carried out under the supervision and with the participation of the Company's Chief Executive Officer and Chief Financial Officer as of March 31, 2019, the last day of the period covered by this Quarterly Report. The Company's Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures were effective as of March 31, 2019 in ensuring that the information required to be disclosed in the reports the Company files or submits under the Exchange Act is (i) accumulated and communicated to management (including the Company's Chief Executive Officer and Chief Financial Officer) as appropriate to allow timely decisions regarding required disclosures, and (ii) recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms.

#### *Changes in Internal Control Over Financial Reporting*

There were no changes in the Company's internal control over financial reporting during the three months ended March 31, 2019 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

## PART II. OTHER INFORMATION

### Item 1. Legal Proceedings

In the ordinary course of operations, the Company is party to various legal proceedings. The Company is not involved in, nor has it terminated during the three months ended March 31, 2019, any pending legal proceedings other than nonmaterial proceedings occurring in the ordinary course of business.

### Item 1A. Risk Factors

There have been no material changes to the risk factors that have been previously disclosed in the Company's 2018 Annual Report filed with the SEC.

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

None.

### Item 3. Defaults Upon Senior Securities

None.

### Item 4. Mine Safety Disclosures

Not applicable.

### Item 5. Other Information

None.

## Item 6. Exhibits.

Exhibits to this report are listed in the Index to Exhibits section of this report.

### INDEX TO EXHIBITS

Exhibit No.	Description of Exhibit
3.1	<a href="#">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)</a>
3.2	<a href="#">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)</a>
4.1	<a href="#">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)</a>
4.2	<a href="#">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)</a>
31.1	<a href="#">Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*</a>
31.2	<a href="#">Certification of Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*</a>
32	<a href="#">Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**</a>
101	Interactive data files pursuant to Rule 405 of Regulation S-T: (i) Condensed Consolidated Balance Sheets as of March 31, 2019 and December 31, 2018; (ii) Condensed Consolidated Statements of Income for the Three Months Ended March 31, 2019 and 2018; (iii) Condensed Consolidated Statements of Comprehensive Income for the Three Months Ended March 31, 2019 and 2018; (iv) Condensed Consolidated Statements of Changes in Shareholders' Equity for the Three Months Ended March 31, 2019 and 2018; (v) Condensed Consolidated Statements of Cash Flows for the Three Months Ended March 31, 2019 and 2018; and (vi) Notes to Unaudited Condensed Consolidated Financial Statements*

\* Indicates a document being filed with this Form 10-Q.

\*\* 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.

**SIGNATURES**

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

**Live Oak Bancshares, Inc.**

*(Registrant)*

Date: May 7, 2019

By: /s/ S. Brett Caines

S. Brett Caines

Chief Financial Officer

**Certification of Principal Executive Officer  
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, James S. Mahan III, certify that:

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

Date: May 7, 2019

/s/ James S. Mahan III  
James S. Mahan III  
Chief Executive Officer  
(principal executive officer)



**Certification of Principal Financial Officer  
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, S. Brett Caines, certify that:

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

Date: May 7, 2019

/s/ S. Brett Caines  
\_\_\_\_\_  
S. Brett Caines  
Chief Financial Officer  
(principal financial officer)

**Certification**  
**Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**  
**(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)**

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of Live Oak Bancshares, Inc., a North Carolina corporation (the "Company"), does hereby certify that:

The Quarterly Report on Form 10-Q for the quarter ended March 31, 2019 (the "Form 10-Q") of the Company fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 7, 2019

/s/ James S. Mahan III

James S. Mahan III  
Chief Executive Officer  
(principal executive officer)

Date: May 7, 2019

/s/ S. Brett Caines

S. Brett Caines  
Chief Financial Officer  
(principal financial officer)

This certification is being furnished solely to accompany the Form 10-Q pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed "filed" by the registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and shall not be incorporated by reference into any filing of the registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of the Form 10-Q, irrespective of any general incorporation language contained in such filing.

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.