

Live Oak Bancshares, Inc.
Form 424B5
August 08, 2017
Table of Contents

**Filed Pursuant to Rule 424(b)(5)
Registration No. 333-219255**

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where such offer or sale is not permitted.

Subject to Completion. Dated August 8, 2017.

Prospectus Supplement to Prospectus dated July 28, 2017

4,500,000 Shares

Common Stock

We are offering 4,500,000 shares of our voting common stock, no par value per share, which we refer to as our common stock.

Our common stock trades on the Nasdaq Global Select Market (Nasdaq), under the trading symbol LOB. The last reported sale price of our common stock on Nasdaq on August 7, 2017, was \$24.20 per share.

We are an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012 (the JOBS Act), and are eligible for reduced public company reporting requirements. Please see Summary Implications of Being an Emerging Growth Company in this prospectus supplement.

Investing in our common stock involves risks. See Risk Factors beginning on page S-9 of this prospectus supplement and in our most recent Annual Report on Form 10-K and those contained in our other filings with the SEC that are incorporated by reference herein before you make your investment decision.

None of the Securities and Exchange Commission, any state securities commission, the Federal Deposit Insurance Corporation, the Board of Governors of the Federal Reserve System, the North Carolina Commissioner of Banks or any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement. Any representation to the contrary is a criminal offense.

These securities are not deposits, savings accounts, or other obligations of a depository institution and are not insured by the Federal Deposit Insurance Corporation or any other governmental agency.

	Per share	Total
Public offering price	\$	\$
Underwriting discount (1)	\$	\$
Proceeds before expenses, to us	\$	\$

(1) See Underwriting beginning on page S-19 for disclosure regarding the underwriting discount, the underwriters compensation and our expenses.

We have granted the underwriters an option to purchase, exercisable within 30 days from the date of this prospectus supplement, up to an additional 675,000 shares of our common stock at the public offering price, less the underwriting discount.

The underwriters expect to deliver the shares against payment in New York, New York, on or about _____, 2017.

Sole Book-Running Manager

Goldman Sachs & Co. LLC
Co-Managers

Sandler O'Neill + Partners, L.P.

SunTrust Robinson Humphrey, Inc.

Prospectus Supplement dated , 2017.

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

<u>About This Prospectus Supplement</u>	S-1
<u>Cautionary Note Regarding Forward-Looking Statements</u>	S-2
<u>Summary</u>	S-4
<u>The Offering</u>	S-7
<u>Risk Factors</u>	S-9
<u>Use of Proceeds</u>	S-13
<u>Market Price of Our Common Stock</u>	S-14
<u>Dividend Policy</u>	S-15
<u>Capitalization</u>	S-16
<u>Material U.S. Federal Tax Considerations For Non-U.S. Holders</u>	S-17
<u>Underwriting</u>	S-21
<u>Legal Matters</u>	S-26
<u>Experts</u>	S-26
<u>Where You Can Find More Information</u>	S-26
<u>Incorporation of Documents By Reference</u>	S-27

Prospectus

<u>About This Prospectus</u>	1
<u>Prospectus Summary</u>	2
<u>Risk Factors</u>	7
<u>Special Note Regarding Forward-Looking Statements</u>	8
<u>Use of Proceeds</u>	10
<u>Plan of Distribution</u>	10
<u>Description of Voting and Non-Voting Common Stock, No Par Value Per Share</u>	12
<u>Description of Preferred Stock</u>	13
<u>Description of Depositary Shares</u>	15
<u>Description of Debt Securities</u>	18
<u>Description of Warrants</u>	20
<u>Description of Units</u>	22
<u>Description of Purchase Contracts</u>	22
<u>Description of Rights</u>	22
<u>Charter, Bylaw and Statutory Provisions Having Potential Anti-Takeover Effects</u>	24
<u>Legal Matters</u>	25
<u>Experts</u>	25
<u>Where You Can Find More Information</u>	25
<u>Incorporation of Certain Information by Reference</u>	26

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document consists of two parts. The first part is the prospectus supplement, which describes the specific terms of this offering of our common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. The second part, the accompanying prospectus, provides more general information about the securities we may offer in one or more offerings from time to time under our shelf registration statement, some of which may not apply to this offering of common stock. It is important for you to read and consider all of the information contained in this prospectus supplement and the accompanying prospectus in making your investment decision. You should read both this prospectus supplement and the accompanying prospectus, together with the additional information described in the sections entitled *Where You Can Find More Information* and *Incorporation of Documents by Reference* of this prospectus supplement, before investing in our common stock.

You should rely only on the information contained or incorporated by reference into this prospectus supplement and the accompanying prospectus and any written communication from Live Oak Bancshares, Inc. or the underwriters specifying the final terms of this offering. Neither we nor the underwriters have authorized anyone to provide you with different or additional information, or to make any representations, from those contained or incorporated by reference in this prospectus supplement, the accompanying prospectus or in any free writing prospectuses that we have prepared. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. If the information in this prospectus supplement conflicts with any statement in a document that we have incorporated by reference, then you should consider only the statement in the more recent document. The information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus or in any free writing prospectus is current only as of the date of the applicable document. Our business, financial condition, results of operations and prospects may have changed since that date.

We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of our common stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Our primary executive offices are located at 1741 Tiburon Drive, Wilmington, North Carolina 28403, and our telephone number is (910) 790-5867. Our website address is www.liveoakbank.com. The information contained on, or that can be accessed through, our website is not a part of, and should not be construed as being incorporated by reference into, this prospectus supplement or the accompanying prospectus.

Except where the context otherwise requires, the *Company*, *we*, *us* and *our* refer to Live Oak Bancshares, Inc. and its consolidated subsidiaries, and the *Bank* refers to our wholly owned subsidiary bank, Live Oak Banking Company.

Table of Contents

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Statements included in this prospectus supplement (including the accompanying prospectus and the information incorporated or deemed to be incorporated by reference in this prospectus supplement) and any free writing prospectus that we may provide to you in connection with an offering of our common stock described in this prospectus supplement, which are not historical in nature are intended to be, and are hereby identified as, forward looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995.

These statements generally relate to our 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, 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 prospectus supplement. 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 us 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 prospectus supplement are based on current expectations, estimates and projections about our business, management's beliefs and assumptions made by management. These statements are not guarantees of our 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 our loan and lease losses and provisions for those losses and other adverse impacts to results of operations and financial condition;

changes in U.S. Small Business Administration (the 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 as an SBA Preferred Lender;

changes in rules, regulations or procedures for other government loan programs, including those of the United States Department of Agriculture;

changes in interest rates that affect the level and composition of deposits, loan demand and the values of loan collateral, securities, and interest sensitive assets and liabilities;

the failure of assumptions underlying the establishment of reserves for possible loan and lease losses;

changes in loan underwriting, credit review or loss reserve policies associated with economic conditions, examination conclusions, or regulatory developments;

a reduction in or the termination of our ability to use the technology-based platform that is critical to the success of our business model, including a failure in or a breach of our 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 we conduct operations, including reductions in rates of business formation and growth, demand for our 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;

Table of Contents

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 our 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;

our ability to attract and retain key personnel;

changes in governmental monetary and fiscal policies as well as other legislative and regulatory changes, including with respect to SBA lending programs and investment tax credits;

changes in political and economic conditions;

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

our 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 we conduct 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 us or the Bank may from time to time be a party, including management's ability to successfully integrate any businesses acquired; 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.

Some of the factors that could cause actual results to differ from those expressed or implied in forward-looking statements are incorporated by reference under "Risk Factors" in this prospectus supplement and in the accompanying prospectus, and in the "Risk Factors" and other sections of the documents that we incorporate by reference into this prospectus, including our Annual Reports on Form 10-K and our Quarterly Reports on Form 10-Q and in our other reports filed with the SEC. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual outcomes may vary materially from those anticipated. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their

entirety by reference to these risks and uncertainties. You should not place undue reliance on our forward-looking statements. All forward-looking statements speak only as of the date on which such statements are made, and we undertake 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.

S-3

Table of Contents

SUMMARY

*This summary highlights information contained elsewhere in this prospectus supplement or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before investing in our common stock. Before investing in our common stock, you should carefully read the entire prospectus supplement, the accompanying prospectus, any applicable free writing prospectus we file with the SEC, including the information set forth under **Risk Factors** and **Cautionary Note Regarding Forward-Looking Statements** in this prospectus supplement, together with the accompanying prospectus, the information incorporated by reference herein and therein, including our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 and subsequent Quarterly Reports on Form 10-Q and the financial statements (and the notes thereto) contained therein, and any other documents to which we refer you.*

Our Company

We are a bank holding company, headquartered in Wilmington, North Carolina, for Live Oak Banking Company (the Bank). The Bank was incorporated in February 2008 as a North Carolina-chartered commercial bank and operates an established national online platform for small business lending. We were incorporated under the laws of the State of North Carolina on December 18, 2008, for the purpose of serving as the bank holding company of the Bank. We completed our initial public offering in July 2015.

We predominately originate loans partially guaranteed by the SBA, to small businesses and professionals with what we believe are lower risk characteristics. The industries, or verticals, on which we focus our lending efforts are carefully selected. Within each vertical, we retain individuals who possess extensive industry-specific experience. Additionally, these domain experts are engaged and active in each of the industries served.

In addition to focusing on industry verticals, we emphasize developing detailed knowledge of our customers businesses. This knowledge is developed, in part, through regular visits to customers operations, wherever they are located. These regular visits are designed to foster both for us and for the customer a deep and personalized experience throughout the lending relationship. We have developed and continue to refine a technology-based platform to facilitate providing financial services to the small business community on a national scale and have leveraged this technology to optimize our loan origination process, customer experience, reporting metrics, and servicing activity. We service customers efficiently throughout the loan process and monitor their performance by means of the technology-based platform, which eliminates the need to maintain traditional branch locations.

In addition to the Bank, we hold the following wholly owned subsidiaries as of the date of this prospectus:

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

Live Oak Ventures, Inc., formed in August 2016 for the purpose of investing in businesses that align with our strategic initiative to be a leader in financial technology;

Live Oak Grove, LLC, opened in September 2015 for the purpose of providing our employees and business visitors an on-site restaurant location;

Government Loan Solutions, Inc., 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

S-4

Table of Contents

504 Fund Advisors, LLC, formed to serve as the investment advisor to the 504 Fund, a closed-end mutual fund organized to invest in SBA section 504 loans.

On February 1, 2017, we completed our acquisition of Reltco, Inc. and National Assurance Title, Inc., two companies under common control based in Tampa, Florida, that provide nationwide title agency and settlement services.

As of June 30, 2017, we had consolidated total assets of \$2.20 billion, total loans held for investment of \$1.06 billion, total deposits of \$1.87 billion and total shareholders' equity of \$237.63 million. Our common stock is listed on the Nasdaq Global Select Market under the trading symbol LOB. The last reported sale price of our common stock on Nasdaq on August 7, 2017, was \$24.20 per share.

Our principal executive office is located at 1741 Tiburon Drive, Wilmington, North Carolina 28403, and our telephone number is (910) 790-5867. We maintain a website at www.liveoakbank.com. The information contained in, or that can be accessed through, our website is not part of this prospectus supplement. Additional information about us and our subsidiaries is included in the documents incorporated by reference in this prospectus supplement. See [Where You Can Find More Information](#) and [Incorporation of Documents by Reference](#) on page S-23 of this prospectus supplement.

Recent Developments

Cash Dividend. On August 7, 2017, our board of directors declared a cash dividend of \$0.03 per share payable on September 5, 2017, to shareholders of record of our voting and non-voting common stock as of August 21, 2017.

Restricted Stock Unit Awards. On August 7, 2017, the Compensation Committee of our board of directors approved restricted stock unit (RSU) awards for certain of our executive officers under our 2015 Omnibus Stock Incentive Plan. Under the terms of the awards, the grantees are entitled to receive a total of 130,000 shares of the Company's voting common stock upon vesting of the RSUs. In order for the RSUs to vest, our voting common stock must attain a closing price equal to or greater than \$38.00 per share for at least twenty consecutive trading days at any time prior to August 7, 2024. In addition, the vesting of the RSUs is subject to the Company achieving total revenue of at least \$100 million for the twelve months ending June 30, 2018.

Recent Hire. The Bank has expanded its accounting and tax firm expertise through the recent hire of a Senior Loan Officer with experience at another bank in the Southeast leading the development of an SBA lending program for certified public accountants.

Implications of Being an Emerging Growth Company

We qualify as an emerging growth company as defined in the JOBS Act. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include, among others:

inclusion of only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced Management's Discussion and Analysis of Financial Condition and Results of Operations disclosure;

reduced disclosure about our executive compensation arrangements;

S-5

Table of Contents

no non-binding advisory votes on executive compensation or golden parachute arrangements; and

exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these exemptions for up to five years from our initial public offering or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than \$1.07 billion in annual revenue, if we are deemed to be a large accelerated filer (the fiscal year-end on which we had more than \$700 million in market value of our common stock held by non-affiliates as of the end of the second quarter of such year), or we issue more than \$1 billion of non-convertible debt over a three-year period. We may choose to take advantage of some, but not all, of the available exemptions. We have taken advantage of certain reduced reporting burdens in this prospectus and in documents incorporated herein by reference. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock. Please see Risk Factors We are an emerging growth company, and the reduced reporting requirements applicable to emerging growth companies may make our common stock less attractive to investors.

Table of Contents

THE OFFERING

Issuer	Live Oak Bancshares, Inc.
Common stock offered	4,500,000 shares of common stock.
Option to purchase additional shares	We have granted the underwriters an option for a period of 30 days to purchase up to additional 675,000 shares of common stock.
Common stock to be outstanding immediately after this offering	39,164,164 shares of voting and non-voting common stock (or 39,839,164 shares of voting and non-voting common stock if the underwriters exercise their option to purchase additional shares in full).
Public offering price per share	\$
Use of proceeds	<p>The net proceeds from this offering will be approximately \$ million (or \$ million if the underwriters exercise their option to purchase additional shares in full), after deducting the underwriting discount and estimated offering expenses payable by us.</p> <p>We intend to use the net proceeds from this offering to make investments in the Bank and in our nonbank subsidiaries, to enhance our capital position and that of the Bank, and for general corporate purposes. See Use of Proceeds on page S-12.</p>
Dividends	<p>We intend to pay dividends on our common stock, when, as, and if declared by our board of directors or a duly authorized committee thereof. Our ability to declare and pay dividends is limited by state law and by applicable federal and state regulatory restrictions, including the regulations and guidelines of the Board of Governors of the Federal Reserve System (the Federal Reserve) applicable to bank holding companies.</p> <p>In addition, because we are a bank holding company, our ability to pay dividends on our common stock will be highly dependent upon the receipt of dividends, fees and other amounts from the Bank, which, in turn, will be highly dependent upon the Bank's historical and projected results of operations, liquidity, cash flows and financial condition, as</p>

well as various legal and regulatory prohibitions and other restrictions on the ability of the Bank to pay dividends, extend credit or otherwise transfer funds to us. For additional information, see Dividend Policy.

Lock-up in connection with this offering We and all of our directors and officers have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock, non-voting common stock or securities convertible into or exchangeable for shares of common stock during

S-7

Table of Contents

the period from the date of this prospectus supplement continuing through the date that is 90 days after the date of this prospectus supplement, except with the prior written consent of the underwriters. This agreement does not apply to any existing employee benefit plans. See Underwriting.

Transfer agent and registrar

Broadridge Corporate Issuer Solutions, Inc.

Risk factors

Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-8 of this prospectus supplement, in the accompanying prospectus and the documents incorporated by reference for a discussion of factors you should consider carefully before investing in our common stock.

Nasdaq trading symbol

Our common stock is listed on the Nasdaq Global Select Market under the trading symbol LOB.

The number of shares of common stock to be outstanding after this offering is based on 30,020,634 shares of voting common stock outstanding as of August 7, 2017 and 4,643,530 shares of non-voting common stock outstanding as of August 7, 2017, and excludes the following:

3,207,318 shares of our common stock issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$11.43 per share;

297,602 shares of our common stock reserved for issuance in connection with stock awards available for issuance under our Amended and Restated 2015 Omnibus Stock Incentive Plan; and

230,927 shares of our common stock reserved for issuance in connection with the exercise of purchase options under our 2014 Employee Stock Purchase Plan.

Unless expressly indicated or the context otherwise requires, all information in this prospectus assumes no exercise by the underwriters of their option to purchase up to an additional 675,000 shares of our common stock in this offering.

Table of Contents

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below together with the other information included in this prospectus supplement, the accompanying prospectus and incorporated by reference herein, before deciding to purchase our common stock. In addition, you should carefully consider, among other things, the section entitled "Risk Factors" beginning on page 13 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 and page 60 of our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017, and other information in our consolidated financial statements, all of which are incorporated by reference into this prospectus supplement. The risks described below and incorporated herein by reference are those which we believe are the material risks that we face. The occurrence of any of the following risks may materially and adversely affect our business, financial condition, results of operations, cash flows, reputation and future prospects. In this event, the market price of our common stock could decline, and you could lose part or all of your investment.

Risks Related to this Offering and our Common Stock

We have broad discretion in the use of the net proceeds from this offering, and our use of those proceeds may not yield a favorable return on your investment.

We expect to use the net proceeds of this offering to make investments in the Bank and in our nonbank subsidiaries, to enhance our capital position and that of the Bank, and for general corporate purposes. Our management has broad discretion over how these proceeds are used and could spend the proceeds in ways with which you may not agree. In addition, we may fail to use the proceeds of this offering effectively or in a manner that increases our market value or enhances our profitability. We have not established a timetable for the effective deployment of the proceeds, and we cannot predict how long it will take to deploy the proceeds. Investing the offering proceeds in securities until we are able to deploy the proceeds will provide lower margins than we generally earn on loans, potentially adversely affecting our business, results of operations and financial condition.

Securities analysts might not continue coverage on our common stock.

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

Future sales of shares of our common stock by our shareholders or the perception that those sales could occur may cause our stock price to decline.

Although our common stock is listed on Nasdaq under the symbol "LOB", the trading volume in our common stock is lower than that of other larger financial services companies. A public trading market having the desired characteristics of depth, liquidity and orderliness depends on the presence in the marketplace of willing buyers and sellers of our common stock at any given time. This presence depends on the individual decisions of investors and general economic and market conditions over which we have no control. Given the relatively low trading volume of our common stock, significant sales of our common stock in the public market, or the perception that those sales may occur, could cause the trading price of our common stock to decline or to be lower than it otherwise might be in the

absence of those sales or perceptions.

S-9

Table of Contents

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

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

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

We may, in the future, determine that it is advisable, or we may encounter circumstances where we determine it is necessary, to issue additional shares of common stock, securities convertible into, exchangeable for or that represent an interest in common stock, or common stock-equivalent securities to fund strategic initiatives or other business needs or to build additional capital. Our board of directors is authorized to cause us to issue additional shares of common stock from time to time for adequate consideration without any additional action on the part of our shareholders. The market price of our common stock could decline as a result of other offerings, as well as other sales of a large block of common stock or the perception that such sales could occur.

We are subject to extensive regulation, and ownership of our common stock may have regulatory implications for holders thereof.

We are subject to extensive federal and state banking laws, including the Bank Holding Company Act of 1956, as amended (the "BHCA"), and federal and state banking regulations, that will impact the rights and obligations of owners of our common stock, including, for example, our ability to declare and pay dividends on our common stock. Shares of our common stock are voting securities for purposes of the BHCA and any bank holding company or foreign bank that is subject to the BHCA may need approval to acquire or retain more than 5% of the then outstanding shares of our common stock, and any holder (or group of holders deemed to be acting in concert) may need regulatory approval to acquire or retain 10% or more of the shares of our common stock. A holder or group of holders may also be deemed to control us if they own 25% or more of our total equity. Under certain limited circumstances, a holder or group of holders acting in concert may exceed the 25% percent threshold and not be deemed to control us until they own 33% percent or more of our total equity. The amount of total equity owned by a holder or group of holders acting in concert is calculated by aggregating all shares held by the holder or group, whether as a combination of voting or non-voting shares or through other positions treated as equity for regulatory or accounting purposes and meeting certain other conditions. Holders of our common stock should consult their own counsel with regard to regulatory implications.

Holdings should not expect us to redeem outstanding shares of our common stock.

Our common stock is a perpetual equity security. This means that it has no maturity or mandatory redemption date and will not be redeemable at the option of the holders. Any decision we may make at any time to propose the repurchase or redemption of shares of our common stock will depend upon, among other things,

S-10

Table of Contents

our evaluation of our capital position, the composition of our shareholders' equity, general market conditions at that time and other factors we deem relevant. Our ability to redeem shares of our common stock is subject to regulatory restrictions and limitations, including those of the Federal Reserve.

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

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

Anti-takeover provisions could adversely affect our shareholders.

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

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

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

Our stock price might fluctuate significantly, which could cause the value of your investment in our common stock to decline, and you might not be able to resell your shares at a price at or above the public offering price.

Since our initial public offering in July 2015, the price of our common stock, as reported by Nasdaq, has ranged from a low of \$12.10 on January 11, 2016, to a high of \$26.05 on June 15, 2017. In addition, securities markets worldwide have experienced, and are likely to continue to experience, significant price and volume fluctuations. This market volatility, as well as general economic, market or political conditions, could reduce the market price of our common stock regardless of our results of operations. The public market for our common stock continues to be relatively new, and its trading price is likely to be volatile and subject to significant price fluctuations in response to many factors. For example, securities analysts publish annual and quarterly financial estimates and ratings with respect to our Company. Analyst estimates of our quarterly results might not necessarily reflect our expectations of the quarterly financial results. Changes in quarterly results, analyst estimates of those results or our failure to meet those estimates for any reason can impact the price of and market for our common stock. Other factors that impact the market for our stock include:

our operating performance and the operating performance of similar companies;

the overall performance of the equity markets;

prevailing interest rates;

economic, financial, geopolitical, regulatory or judicial events affecting us or the financial markets generally;

S-11

Table of Contents

the market for similar securities;

announcements by us or our competitors of acquisitions, business plans, or commercial relationships;

threatened or actual litigation;

any major change in our board of directors or management;

publication of research reports or news stories about us, our competitors, or our industry, or positive or negative recommendations or withdrawal of research coverage by securities analysts;

whether we declare dividends on our common stock from time to time;

our creditworthiness;

the ratings given to our securities by credit rating agencies, if any;

large volumes of sales of our shares of common stock by existing shareholders; and

general political and economic conditions.

In addition, the stock market in general, and the market for banks and financial services companies in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. These fluctuations might be even more pronounced in the trading market for our stock shortly following this offering. Securities class action litigation has often been instituted against companies following periods of volatility in the overall market and in the market price of a company's securities. This litigation, if instituted against us, could result in substantial costs, divert our management's attention and resources, and harm our business, operating results, and financial condition.

We are an emerging growth company, and the reduced reporting requirements applicable to emerging growth companies may make our common stock less attractive to investors.

We are an emerging growth company, as defined in the federal securities laws. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. We could be an emerging growth company for up to five years from the date of our initial public offering, although we could lose that status sooner if our gross revenues exceed \$1.07 billion, if we issue more than \$1.0 billion in non-convertible debt in a three-year period, or if we are deemed to

be a large accelerated filer (the fiscal year-end on which the market value of our common stock held by non-affiliates exceeded \$700 million as of the end of the second quarter of such year), in which case we would no longer be an emerging growth company as of the following December 31. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions, or if we choose to rely on additional exemptions in the future. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

S-12

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds from the sale of the shares of common stock we are offering will be approximately \$ million (or approximately \$ million if the underwriters exercise their option to purchase additional shares of common stock in full), after deducting the underwriting discount and estimated offering costs payable by us.

The principal purposes of this offering are to obtain additional capital to support our operations. We expect to use the net proceeds of this offering to make investments in the Bank and in our nonbank subsidiaries, to enhance our capital position and that of the Bank, and for general corporate purposes.

The amounts and timing of our use of the net proceeds from this offering will depend on market conditions, among other factors. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses for the net proceeds to us from this offering. Accordingly, our management will have broad discretion in the timing and application of these proceeds. Pending application of the net proceeds as described above, we intend to temporarily invest the proceeds in short-term, interest-bearing instruments.

Table of Contents**MARKET PRICE OF OUR COMMON STOCK**

Our common stock is traded on the Nasdaq Global Select Market under the symbol LOB. Quotations of the sales volume and the closing sales prices of our common stock are listed daily in Nasdaq's listings. The following table sets forth the quarterly high and low closing prices for our common stock as reported by Nasdaq and the dividends declared per share of common stock for each quarter since our initial public offering:

	High	Low	Dividends
2017			
Third Quarter (through August 7, 2017)	\$ 25.80	\$ 22.65	\$ 0.03
Second Quarter	\$ 26.05	\$ 20.95	\$ 0.02
First Quarter	\$ 24.59	\$ 18.00	\$ 0.02
2016			
Fourth Quarter	\$ 19.85	\$ 14.10	\$ 0.02
Third Quarter	\$ 14.96	\$ 13.01	\$ 0.02
Second Quarter	\$ 16.50	\$ 13.70	\$ 0.01
First Quarter	\$ 15.29	\$ 12.14	\$ 0.02
2015			
Fourth Quarter	\$ 19.34	\$ 12.88	\$ 0.01
Third Quarter (beginning July 23, 2015)	\$ 20.65	\$ 18.62	\$ 0.01

The closing price of our common stock on Nasdaq on August 7, 2017 was \$24.20 per share. On August 7, 2017, we had approximately 281 holders of record of our common stock. The actual number of shareholders is greater than this number of record holders, and includes shareholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

Table of Contents

DIVIDEND POLICY

We are organized under the North Carolina Business Corporation Act, which prohibits the payment of a dividend if, after giving it effect, we would not be able to pay our debts as they become due in the usual course of business or our total assets would be less than the sum of our total liabilities plus the amount that would be needed, if we were to be dissolved, to satisfy the preferential rights upon dissolution of any preferred shareholders. In addition, because we are a bank holding company, the Federal Reserve may impose restrictions on cash dividends paid by us. The Federal Reserve has issued a policy statement on the payment of cash dividends by bank holding companies, which expresses the Federal Reserve's view that a bank holding company should pay cash dividends only to the extent that the holding company's net income for the past four quarters, net of any dividends previously paid during that period, is sufficient to cover both the cash dividends and a rate of earnings retention that is consistent with the bank holding company's capital needs, asset quality and overall financial condition. The Federal Reserve has also indicated that it would be inappropriate for a bank holding company experiencing serious financial problems to borrow funds to pay dividends. Furthermore, under the prompt corrective action regulations adopted by the Federal Reserve, the Federal Reserve may prohibit a bank holding company from paying any dividends if any of the holding company's bank subsidiaries are classified as undercapitalized.

Our ability to pay dividends is largely dependent upon the amount of cash dividends that the Bank pays to us, which distributions are restricted under North Carolina banking laws and regulations. The Bank may make distributions only to the extent that the Bank remains adequately capitalized. In addition, regulatory authorities may limit payment of dividends by any bank when it is determined that such a limitation is in the public interest and is necessary to ensure financial soundness of the bank. The Office of the North Carolina Commissioner of Banks and the FDIC also are authorized to prohibit the payment of dividends by a bank under certain circumstances. Such requirements and policies may limit our ability to obtain dividends from the Bank for our cash needs, including payment of dividends to our shareholders and the payment of operating expenses.

Any determination to pay future dividends to shareholders will be dependent upon our operational results, financial condition, capital requirements, business projections, general business conditions, statutory and regulatory restrictions and any other factors that our board of directors deem appropriate. Our board of directors may change or eliminate the payment of future dividends at its discretion, without notice to shareholders.

Table of Contents**CAPITALIZATION**

The following table sets forth our cash and due from banks and our consolidated capitalization, including regulatory capital ratios, at June 30, 2017 on:

an actual basis; and

on an as adjusted basis to give effect to the net proceeds from the sale by us of 4,500,000 shares of common stock in this offering (assuming the underwriters do not exercise their option to purchase additional shares) at a public offering price of \$ _____ per share for the common stock, after deducting the underwriting discount and estimated offering expenses payable by us.

You should read the following table in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and related notes thereto, which are included in our Annual Report on Form 10-K for the year ended December 31, 2016 and our Quarterly Reports on Form 10-Q for the quarters ended March 31 and June 30, 2017 and incorporated herein by reference.

	As of June 30, 2017	
	Actual	As Adjusted for this Offering
	(dollars in thousands, except share and per share data and ratios)	
Deposits and Debt:		
Total deposits	\$ 1,871,721	\$ 1,871,721
Short-term debt	10,000	10,000
Long-term debt	52,173	52,173
Total deposits and debt	1,933,894	1,933,894
Shareholders' equity:		
Voting and non-voting common stock, no par value, 110,000,000 shares authorized, 34,639,848 shares issued and outstanding, actual; 39,139,848 shares issued and outstanding, as adjusted	200,107	
Retained earnings	38,041	38,041
Accumulated other comprehensive loss	517	517
Total shareholders' equity	237,631	
Book value per common share	6.86	
Capital ratios:		
Company regulatory capital ratios:		

Edgar Filing: Live Oak Bancshares, Inc. - Form 424B5

Tier 1 leverage capital	9.93%
CET 1 risk-based capital	11.93
Tier 1 risk-based capital	11.93
Total risk-based capital	13.08

S-16

Table of Contents

MATERIAL U.S. FEDERAL TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following discussion summarizes certain material U.S. federal income and estate tax consequences to non-U.S. holders (as defined below) of ownership and disposition of our common stock. This summary does not provide a complete analysis of all potential U.S. federal income tax and estate tax considerations relating thereto. The information provided below is based on the Internal Revenue Code of 1986, as amended (the Code), and administrative pronouncements, judicial decisions and final, temporary and proposed Treasury regulations as of the date hereof, changes to any of which subsequent to the date of this prospectus supplement may affect the tax consequences described herein. In addition, this summary does not address the Medicare tax or net investment tax on certain investment income or any state, local or foreign taxes or any U.S. federal tax laws other than, to the extent discussed below, U.S. federal income tax laws and estate tax laws. Persons considering the purchase, ownership, or disposition of our common stock should consult their tax advisors concerning U.S. federal, state, local, foreign or other tax consequences in light of their particular situations.

As used in this section, a non-U.S. holder is a beneficial owner of our common stock that is not, for U.S. federal income tax purposes:

an individual who is a citizen or resident of the United States;

a corporation (or other entity taxable as a corporation) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;

an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

a trust if (i) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust or (ii) it has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

An individual non-U.S. citizen may in many cases be deemed to be a resident alien, as opposed to a nonresident alien, by virtue of being present in the United States for at least 31 days in the calendar year and for an aggregate of at least 183 days during a three-year period ending in the current calendar year. For these purposes, all the days present in the current year, one-third of the days present in the immediately preceding year, and one-sixth of the days present in the second preceding year are counted. Resident aliens are subject to U.S. federal income tax as if they were U.S. citizens. Such an individual is urged to consult his or her own tax advisor regarding the U.S. federal income tax consequences of the ownership or disposition of our common stock.

If an entity that is classified as a partnership for U.S. federal income tax purposes is a beneficial owner of our common stock, the tax treatment of a partner will generally depend on the status of the partner and upon the activities of the partnership. If you are a partner of a partnership holding shares of our common stock, you should consult your own tax advisor.

This discussion assumes that a non-U.S. holder will hold our common stock as a capital asset (generally, property held for investment). The summary generally does not address tax considerations that may be relevant to particular investors because of their specific circumstances, or because they are subject to special rules, including, without

limitation, if the investor is a former citizen or long-term resident of the United States or partnership or other pass-through entity for U.S. federal income tax purposes. If you fall within any of the foregoing categories, this description does not apply to you, and you should consult with your own tax advisor about the tax consequences of acquiring, owning, and disposing of our common stock.

INVESTORS CONSIDERING THE PURCHASE OF OUR COMMON STOCK SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE APPLICATION OF THE U.S. FEDERAL INCOME AND ESTATE TAX LAWS TO THEIR PARTICULAR SITUATIONS AND THE CONSEQUENCES OF FOREIGN, STATE, LOCAL, OR OTHER LAWS AND TAX TREATIES.

S-17

Table of Contents

Distributions on Common Stock

We do not expect to declare or pay any dividends on our common stock in the foreseeable future. If we do pay dividends on shares of our common stock, however, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital that is applied against and reduces, but not below zero, a non-U.S. holder's adjusted tax basis in shares of our common stock. Any remaining excess will be treated as gain realized on the sale or other disposition of our common stock. See Dispositions of Common Stock.

Any dividend paid to a non-U.S. holder on our common stock will generally be subject to U.S. federal withholding tax at a 30% rate. The withholding tax might apply at a reduced rate for a non-U.S. holder that is eligible for the benefits of an applicable income tax treaty between the United States and the non-U.S. holder's country of residence that provides for a reduced withholding rate. Generally, in order for us or our paying agent to withhold tax at a lower treaty rate, a non-U.S. holder must certify its entitlement to treaty benefits. A non-U.S. holder generally can meet this certification requirement by providing a properly completed Internal Revenue Service (IRS) Form W-8BEN, Form W-8BEN-E, or other W-8 series form, as applicable (or any successor form), or appropriate substitute form to us or our paying agent. If the non-U.S. holder holds the common stock through a financial institution or other agent acting on the holder's behalf, the holder will be required to provide appropriate documentation to the agent. The holder's agent will then be required to provide certification to us or our paying agent, either directly or through other intermediaries. A non-U.S. holder eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. You should consult your tax advisors regarding your entitlement to benefits under a relevant income tax treaty.

Dividends received by a non-U.S. holder that are effectively connected with a U.S. trade or business conducted by the non-U.S. holder, and if required under an applicable income tax treaty between the United States and the non-U.S. holder's country of residence, are attributable to a permanent establishment (or, in certain cases involving individual holders, a fixed base) maintained by the non-U.S. holder in the United States, are not subject to such withholding tax. To obtain this exemption, a non-U.S. holder must provide us with an IRS Form W-8ECI (or an acceptable substitute) properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits. In addition to the graduated tax described above, such effectively connected dividends received by corporate non-U.S. holders may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable tax treaty.

Dispositions of Common Stock

Subject to the discussion below on backup withholding and other withholding requirements, gain realized by a non-U.S. holder on a sale, exchange or other disposition of our common stock generally will not be subject to U.S. federal income or withholding tax, unless:

the gain (i) is effectively connected with the conduct by the non-U.S. holder of a U.S. trade or business and (ii) if required by an applicable income tax treaty between the United States and the non-U.S. holder's country of residence, is attributable to a permanent establishment (or, in certain cases involving individual holders, a fixed base) maintained by the non-U.S. holder in the United States (in which case the special rules described below apply);

the non-U.S. holder is an individual who is present in the United States for 183 or more days in the taxable year of such disposition and certain other conditions are met (in which case the gain would be subject to a flat 30% tax, or such reduced rate as may be specified by an applicable income tax treaty, which may be offset by U.S.-source capital losses); or

we are, or have been, a U.S. real property holding corporation (a USRPHC) for U.S. federal income tax purposes at any time during the shorter of the five-year period ending on the date of disposition of our common stock and the non-U.S. holder's holding period for our common stock.

S-18

Table of Contents

Generally, a corporation is a USRPHC if the fair market value of its United States real property interests is 50% or more of the sum of the fair market value of (a) its worldwide real property interests and (b) its other assets used or held for use in a trade or business. The tax relating to stock in a USRPHC does not apply to a non-U.S. holder whose holdings, actual and constructive, amount to 5% or less of our common stock at all times during the applicable period, provided that our common stock is regularly traded on an established securities market. We believe we have not been and are not currently a USRPHC, and we do not anticipate being a USRPHC in the future. Net gain from the sale of a U.S. real property interest is taxed as effectively connected with a trade or business in the United States and thus subject to taxation at U.S. graduated rates on such income.

If any gain from the sale, exchange, or other disposition of our common stock (1) is effectively connected with a U.S. trade or business conducted by a non-U.S. holder and (2) if required by an applicable income tax treaty between the United States and the non-U.S. holder's country of residence, is attributable to a permanent establishment (or, in certain cases involving individuals, a fixed base) maintained by such non-U.S. holder in the United States, then the gain generally will be subject to U.S. federal income tax at the same graduated rates applicable to U.S. persons, net of certain deductions and credits. If such a non-U.S. holder is a corporation, it also may be subject to the branch profits tax at a 30% rate, or such lower rate as may be specified by an applicable income tax treaty.

U.S. Federal Estate Tax

The estates of nonresident alien decedents generally are subject to U.S. federal estate tax on property with a U.S. situs. Because we are a U.S. corporation, our common stock will be U.S. situs property and therefore will be included in the taxable estate of a nonresident alien decedent, unless an applicable estate tax treaty between the United States and the decedent's country of residence provides otherwise. A unified credit amount is available to reduce the net tax liability of a nonresident alien's estate, but the unified credit for a nonresident alien is generally much smaller than the applicable credit for computing the estate tax of a U.S. resident. Nonresident aliens should consult their personal tax advisors regarding specific or potential implications to them of the U.S. federal estate tax.

Backup Withholding and Information Reporting

Any dividends on our common stock that are paid to a non-U.S. holder must be reported annually to the IRS and to the non-U.S. holder. Copies of these information returns also may be made available to the tax authorities of the country in which the non-U.S. holder resides under the provisions of various treaties or agreements for the exchange of information. Unless the non-U.S. holder is an exempt recipient, dividends paid on our common stock and the gross proceeds from a taxable disposition of our common stock may be subject to additional information reporting and may also be subject to U.S. federal backup withholding (at a current rate of 28%) if such non-U.S. holder fails to comply with applicable U.S. information reporting and certification requirements. Provision of any properly completed IRS W-8 series form appropriate to the non-U.S. holder's circumstances will satisfy the certification requirements necessary to avoid the backup withholding tax.

Backup withholding is not an additional tax. Any amounts so withheld under the backup withholding rules will be refunded by the IRS or credited against the non-U.S. holder's U.S. federal income tax liability, provided that the required information is timely furnished to the IRS. Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that a holder is a U.S. person and not a non-U.S. holder.

Other Withholding Requirements

In addition to the withholding taxes discussed above, if a non-U.S. holder is a certain type of foreign entity (including, in some instances, a foreign entity acting as an intermediary), withholding tax at a rate of 30% under sections 1471 through 1474 of the Code (commonly referred to as FATCA) will be imposed on dividends on our common stock and, after December 31, 2018, on the gross proceeds of dispositions of our common stock,

Table of Contents

unless such holder has satisfied various U.S. information reporting and due diligence requirements generally relating to its U.S. owners and account holders or otherwise qualifies for an exemption from these rules. These new requirements are different from, and in addition to, the beneficial owner certification requirements described above. If a non-U.S. holder is located in a jurisdiction that has an intergovernmental agreement with the United States governing FATCA, such holder may be subject to different rules. If a non-U.S. holder is located in a jurisdiction that has an intergovernmental agreement with the United States governing FATCA, such holder may be subject to different rules.

Specifically, there are exemptions for withholding on dividends and the gross proceeds of dispositions of our common stock made to a foreign entity, if:

the foreign entity is a foreign financial institution that undertakes specified due diligence, reporting, withholding and certification obligations or, in the case of a foreign financial institution that is a resident in a jurisdiction that has entered into an intergovernmental agreement with the United States relating to FATCA, the entity complies with the diligence and reporting requirements of such an agreement and local laws implementing the intergovernmental agreement;

the foreign entity is not a foreign financial institution and identifies certain of its U.S. investors; or

the foreign entity otherwise is exempted under FATCA.

These new requirements are different from, and in addition to, the beneficial owner certification requirements described above. Non-U.S. holders should consult their tax advisors regarding the possible implications of FATCA on their investment in our common stock.

THE PRECEDING DISCUSSION OF U.S. FEDERAL TAX CONSIDERATIONS IS FOR GENERAL INFORMATION ONLY, AND IS NOT A COMPLETE DISCUSSION OF ALL POTENTIAL TAX CONSIDERATIONS FOR A NON-U.S. HOLDER. IT IS NOT TAX ADVICE. EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE PARTICULAR U.S. FEDERAL, STATE, LOCAL, AND FOREIGN TAX CONSEQUENCES OF PURCHASING, HOLDING, AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAWS.

Table of Contents**UNDERWRITING**

We and the underwriters named below have entered into an underwriting agreement with respect to the shares of our common stock that are being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares of common stock indicated in the following table. Goldman Sachs & Co. LLC is the representative of the underwriters.

Underwriters	Number of Shares of Common Stock
Goldman Sachs & Co. LLC	
Sandler O'Neill & Partners, L.P.	
SunTrust Robinson Humphrey, Inc.	
Total	4,500,000

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional 675,000 shares of common stock from us. They may exercise that option for 30 days. If any shares of common stock are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as in the set forth in the table above.

The following table shows the per share and total underwriting discount. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase 675,000 additional shares of our common stock.

	No Exercise	Full Exercise
Per Share	\$	\$
Total	\$	\$

We estimate that our offering expenses, excluding the underwriting discount, will be approximately \$.

Shares of common stock sold by the underwriters to the public will initially be offered at the public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$ per share from the public offering price. After the initial offering of the shares, the representative may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and to the underwriters' right to reject any order in whole or in part.

Lock-up Agreements

We and all of our directors and officers have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock, non-voting common stock or securities convertible into or exchangeable or exercisable for shares of common stock or non-voting common stock during the period from the date of this prospectus supplement continuing through the date that is 90 days after the date of this prospectus supplement, except with the prior written consent of the representative or subject to customary exceptions.

General

We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act.

S-21

Table of Contents

Our common stock is listed on Nasdaq under the symbol LOB.

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A covered short position is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. Naked short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representative has repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of our common stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on Nasdaq, in the over-the-counter market or otherwise.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to us and to persons and entities that have relationships with us, for which they received or will receive customary fees and expenses. In addition, the Bank is engaged in discussions with Goldman Sachs & Co. LLC regarding potential co-investment in solar energy projects to be originated by the Bank and leased to developers. There can be no assurance that any of these projects will be consummated, but in the future the underwriters and their affiliates may enter into other co-investment or co-lending relationships with us and our affiliates.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to our assets, securities and/or instruments (directly, as collateral securing other obligations or otherwise) and/or persons and entities that have relationships with us. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent

research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

S-22

Table of Contents

Selling Restrictions

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State) an offer to the public of shares of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive:

to any legal entity which is a qualified investor as defined in the Prospectus Directive;

to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the bookrunner for any such offer; or

in any other circumstances falling within Article 3(2) of the Prospectus Directive;

provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any Brazilian placement agent of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer to the public in relation to shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and our common stock to be offered so as to enable an investor to decide to purchase shares of our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, and the expression Prospectus Directive means Directive 2003/71/EC (as amended, including by Directive 2010/73/EU) and includes any relevant implementing measure in the Relevant Member State. This European Economic Area selling restriction is in addition to any other selling restrictions set out below.

United Kingdom

In the United Kingdom, this prospectus is only addressed to and directed as qualified investors who are (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Order); or (ii) high net worth entities and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as relevant persons). Any investment or investment activity to which this prospectus relates is available only to relevant persons and will only be engaged with relevant persons. Any person who is not a relevant person should not act or rely on this prospectus or any of its contents.

Canada

The shares of our common stock may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions, and Ongoing Registrant Obligations. Any resale of the shares of common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus

requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for additional information regarding these rights or consult with a legal advisor.

S-23

Table of Contents

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Hong Kong

The shares of common stock may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) (Companies (Winding Up and Miscellaneous Provisions) Ordinance) or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (Securities and Futures Ordinance), (ii) to professional investors as defined in the Securities and Futures Ordinance and any rules made thereunder or (iii) in other circumstances which do not result in the document being a prospectus as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares of common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors in Hong Kong as defined in the Securities and Futures Ordinance and any rules made thereunder.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares of common stock may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the SFA)) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the shares of common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for six months after that corporation has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation's securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore (Regulation 32)

Where the shares of common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for six months after that trust has acquired the

shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer

S-24

Table of Contents

arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than S\$200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended) (the FIEA). The securities may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for re-offering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations and ministerial guidelines of Japan.

S-25

Table of Contents

LEGAL MATTERS

Wyrick Robbins Yates & Ponton LLP, Raleigh, North Carolina, has passed upon the validity of the shares of common stock offered under this prospectus supplement. Certain legal matters in connection with the offering will be passed upon for the underwriters by Covington & Burling LLP, Washington, D.C.

EXPERTS

The consolidated financial statements of Live Oak Bancshares, Inc. appearing in our Annual Report on Form 10-K for the year ended December 31, 2016 have been audited by Dixon Hughes Goodman LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus supplement, which constitutes part of the registration statement, does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. For further information with respect to us and the shares of common stock offered hereby, you should refer to the registration statement and to the exhibits and schedules filed therewith. Statements contained in this prospectus supplement regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. We are also required to file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings, including our registration statement and the exhibits and schedules thereto, may be inspected without charge at the public reference room maintained by the SEC located at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Copies of all or any portion of the registration statements and the filings may be obtained from such offices upon payment of prescribed fees. The public may obtain information on the operation of the public reference room by calling the SEC at (800) SEC-0330 or (202) 551-8090. The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC.

You may obtain a copy of any of our filings, at no cost, by writing or telephoning us at:

Live Oak Bancshares, Inc.

1741 Tiburon Drive

Wilmington, North Carolina 28403

(910) 790-5867

Attn: Corporate Secretary

Table of Contents

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference information we file with it into our registration statement of which this prospectus supplement is a part, which means that we can disclose important information to you by referring you to other documents. The information incorporated by reference is considered to be part of this prospectus supplement. We incorporate by reference into this prospectus supplement the documents listed below, except for information furnished under Items 2.02 or 7.01 on Form 8-K or other information furnished to the SEC which is not deemed filed and not incorporated in this prospectus supplement.

We hereby incorporate by reference the following documents:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the SEC on March 9, 2017;

our Definitive Proxy Statement on Schedule 14A, filed on March 31, 2017;

our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2017, filed with the SEC on May 8, 2017;

our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017, filed with the SEC on August 7, 2017;

Current Reports on Form 8-K filed with the SEC on February 2, 2017, February 23, 2017, February 24, 2017, May 9, 2017, May 15, 2017 (two reports), and August 7, 2017; and

the description of our common stock contained in Amendment No. 1 to our registration statement on Form S-1 (File No. 333-205126) filed with the SEC on July 13, 2015, including any amendment or report filed for the purpose of updating such description.

We will provide to each person, including any beneficial owners, to whom a prospectus is delivered, upon written or oral request of any such person, a copy of the reports and documents that have been incorporated by reference into this prospectus supplement, at no cost. Any such request should be directed to: Live Oak Bancshares, Inc., 1741 Tiburon Drive Wilmington, North Carolina, 28403, Attention: Corporate Secretary (910) 790-5867. These documents are also available on the Investor Relations section of our website, which is located at www.liveoakbank.com, or as described under **Where You Can Find Additional Information** above. The reference to our website address does not constitute incorporation by reference of the information contained on our website.

Any statement in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this registration statement to the extent that a statement contained herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

You should rely only on the information incorporated by reference or provided in this prospectus supplement or the accompanying prospectus. We have not authorized anyone else to provide you with different information.

S-27

Table of Contents

Prospectus

\$200,000,000 of
Voting Common Stock,
Non-Voting Common Stock,
Preferred Stock,
Warrants,
Debt Securities,
Units,
Depositary Shares,
Purchase Contracts, and/or
Rights

We may offer and sell, from time to time, in one or more offerings, any combination of debt and equity securities that we describe in this prospectus. The aggregate amount of the securities offered by us under this prospectus will not exceed \$200,000,000. We will provide the specific terms of these securities in supplements to this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you invest in the securities described in the applicable prospectus supplement. This prospectus may not be used to consummate sales of securities unless accompanied by a prospectus supplement.

Each time we sell securities, we will provide specific terms of the securities offered in a supplement to this prospectus. The prospectus supplement may also add, update or change information contained in this prospectus. We will specify in any accompanying prospectus supplement the terms of any offering. You should read this prospectus and the applicable prospectus supplement, as well as any documents incorporated by reference in this prospectus and any prospectus supplement, carefully before you invest in any securities. **This prospectus may not be used by us to consummate a sale of securities unless accompanied by the applicable prospectus supplement.**

We will sell these securities directly to our shareholders or to other purchasers or through agents on our behalf or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions or discounts.

Our voting common stock trades on The NASDAQ Global Select Market under the trading symbol LOB. On July 11, 2017, the last reported sale price of our voting common stock was \$24.35 per share. We recommend that you obtain current market quotations for our voting common stock prior to making an investment decision.

We qualify as an emerging growth company, as that term is defined in the Jumpstart Our Business Startups Act.

You should carefully read this prospectus, the prospectus supplement relating to any specific offering of securities and all information incorporated by reference herein and therein.

Investing in our securities involves a high degree of risk. These risks are discussed in this prospectus under Risk Factors beginning on page 7 and in the documents incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is July 28, 2017.

Table of Contents

Table of Contents

	Page
<u>About This Prospectus</u>	1
<u>Prospectus Summary</u>	2
<u>Risk Factors</u>	7
<u>Special Note Regarding Forward-Looking Statements</u>	8
<u>Use of Proceeds</u>	10
<u>Plan of Distribution</u>	10
<u>Description of Voting and Non-Voting Common Stock</u>	12
<u>Description of Preferred Stock</u>	13
<u>Description of Depositary Shares</u>	15
<u>Description of Debt Securities</u>	18
<u>Description of Warrants</u>	20
<u>Description of Units</u>	22
<u>Description of Purchase Contracts</u>	22
<u>Description of Rights</u>	22
<u>Charter, Bylaw and Statutory Provisions Having Potential Anti-Takeover Effects</u>	24
<u>Legal Matters</u>	25
<u>Experts</u>	25
<u>Where You Can Find More Information</u>	25
<u>Incorporation of Certain Information by Reference</u>	26

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission (the SEC) using a shelf registration process. Under this shelf registration statement, we may issue and sell to the public, either separately or together, any part or all of the securities described in the registration statement, at any time and from time to time, in one or more public offerings, up to an aggregate amount of \$200,000,000 of our debt securities, preferred stock, depositary shares, voting common stock, non-voting common stock, purchase contracts, units, warrants, or rights consisting of two or more securities. We may also issue voting common stock, non-voting common stock or preferred stock upon conversion, exchange or exercise of any of the securities mentioned above. This prospectus only provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a supplement to this prospectus that contains specific information about the terms of the securities and the offering. A prospectus supplement may include a discussion of any risk factors or other special considerations applicable to those securities or to us. The supplement also may add, update or change information contained in this prospectus. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement, you should rely on the information in the prospectus supplement. You should carefully read both this prospectus and any supplement, together with the additional information described under the heading **Where You Can Find More Information** below.

The registration statement containing this prospectus, including exhibits to the registration statement, provides additional information about us and the securities offered under this prospectus. That registration statement can be read at the SEC website or at the SEC office mentioned under the heading **Where You Can Find More Information** below.

We may sell the securities (a) through agents; (b) through underwriters or dealers; (c) directly to one or more purchasers; or (d) through a combination of any of these methods of sale. We and our agents reserve the sole right to accept and to reject in whole or in part any proposed purchase of securities. See **Plan of Distribution** below. A prospectus supplement (or pricing supplement), which we will provide to you each time we offer securities, will provide the names of any underwriters, dealers, or agents involved in the sale of the securities, and any applicable fee, commission, or discount arrangements with them.

You should rely only on the information contained in this prospectus, any prospectus supplement (or pricing supplement) and the documents we have incorporated by reference. We will disclose any material changes in our affairs in an amendment to this prospectus, a prospectus supplement (or pricing supplement) or a future filing with the SEC incorporated by reference in this prospectus. No person has been authorized to give any information or to make any representations other than those contained or incorporated in this prospectus and, if given or made, such information or representations must not be relied upon as having been authorized. This prospectus does not constitute an offer to sell or a solicitation of an offer to sell or to buy any securities other than those to which it relates, or an offer or solicitation with respect to those securities to which it relates to any persons in any jurisdiction where such offer or solicitation would be unlawful. The delivery of this prospectus at any time does not imply that the information contained or incorporated herein at its date is correct as of any time subsequent to its date.

Except where the context otherwise requires, the **Company** , **we** , **us** and **our** refer to Live Oak Bancshares, Inc. and its consolidated subsidiaries, and the **Bank** refers to our wholly owned subsidiary bank, Live Oak Banking Company.

Table of Contents

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. Because it is a summary, it might not contain all of the information that is important to you. Accordingly, you are urged to carefully review this prospectus in its entirety, including Risk Factors beginning on page 7 and our financial statements and related notes thereto incorporated by reference herein, before making an investment decision.

Our Company

The Company predominately originates loans partially guaranteed by the U.S. Small Business Administration (the SBA), to small businesses and professionals with what the Company believes are lower risk characteristics. Industries, or verticals, on which the Company focuses its lending efforts are carefully selected. Within each vertical, the Company retains individuals who possess extensive industry-specific experience. Additionally, the Company's domain experts are engaged and active in each of the industries served.

In addition to focusing on industry verticals, the Company emphasizes developing detailed knowledge of its customers' businesses. This knowledge is developed, in part, through regular visits to customers' operations, wherever they are located. These regular visits are designed to foster both for the Company and for the customer a deep and personalized experience throughout the lending relationship. The Company has developed and continues to refine a technology-based platform to facilitate providing financial services to the small business community on a national scale and has leveraged this technology to optimize the Company's loan origination process, customer experience, reporting metrics, and servicing activity. The Company services customers efficiently throughout the loan process and monitors their performance by means of the technology-based platform, which eliminates the need to maintain traditional branch locations.

Corporate Information

The Company, headquartered in Wilmington, North Carolina, is the bank holding company for Live Oak Banking Company (the Bank or Live Oak Bank). The Bank was incorporated in February 2008 as a North Carolina-chartered commercial bank and operates an established national online platform for small business lending. The Company completed its initial public offering in July 2015. The Company was incorporated under the laws of the State of North Carolina on December 18, 2008, for the purpose of serving as the bank holding company of the Bank.

In addition to the Bank, the Company held the following wholly owned subsidiaries as of the date of this prospectus:

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

Live Oak Ventures, Inc., formed in August 2016 for the purpose of investing in businesses that align with the Company's strategic initiative to be a leader in financial technology;

Live Oak Grove, LLC, opened in September 2015 for the purpose of providing Company employees and business visitors an on-site restaurant location;

Edgar Filing: Live Oak Bancshares, Inc. - Form 424B5

Government Loan Solutions, Inc., 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

Table of Contents

504 Fund Advisors, LLC, formed to serve as the investment advisor to the 504 Fund, a closed-end mutual fund organized to invest in SBA section 504 loans.

On February 1, 2017, the Company completed its acquisition of Reltco, Inc. and National Assurance Title, Inc., two companies under common control based in Tampa, Florida, that provide nationwide title agency and settlement services.

Until it was dissolved at the end of December 2015, the Company also owned Independence Aviation, LLC, which was formed for the purpose of purchasing and operating aircraft used for business purposes of the Company.

The Company's principal executive office is located at 1741 Tiburon Drive, Wilmington, North Carolina 28403, telephone number (910) 790-5867. The Company maintains a website at www.liveoakbank.com. The information contained in, or that can be access through, our website is not part of this prospectus.

Implications of Being an Emerging Growth Company

We qualify as an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include, among others:

inclusion of only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced Management's Discussion and Analysis of Financial Condition and Results of Operations disclosure;

reduced disclosure about our executive compensation arrangements;

no non-binding advisory votes on executive compensation or golden parachute arrangements; and

exemption from the auditor attestation requirement in the assessment of our internal controls over financial reporting.

We may take advantage of these exemptions for up to five years from our initial public offering or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than \$1 billion in annual revenue, if we have more than \$700 million in market value of our common stock held by non-affiliates, or we issue more than \$1 billion of non-convertible debt over a three-year period. We may choose to take advantage of some, but not all, of the available exemptions. We have taken advantage of certain reduced reporting burdens in this prospectus and in documents incorporated herein by reference. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

Offerings Under This Prospectus

We may issue and sell to the public, either separately or together, any part or all of the securities described in this prospectus, at any time and from time to time, in one or more public offerings, up to an aggregate amount of \$200,000,000 of our debt securities, preferred stock, depositary shares, voting common stock, non-voting common

stock, purchase contracts, units, warrants, or rights consisting of two or more securities at prices and on terms to be determined by market conditions at the time of any offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities.

Table of Contents

A prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference into this prospectus. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

This prospectus may not be used to consummate a sale of any securities unless it is accompanied by a prospectus supplement.

We may sell the securities directly to investors or to or through agents, underwriters or dealers. We, and our agents or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we offer securities through agents or underwriters, we will include in the applicable prospectus supplement:

the names of those agents or underwriters;

applicable fees, discounts and commissions to be paid to them;

details regarding over-allotment options, if any; and

the net proceeds to us.

Voting Common Stock

We may issue shares of our voting common stock from time to time. The holders of voting common stock are entitled to one vote per share on all matters to be voted upon by shareholders. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by our board of directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of voting common stock along with the holders of our non-voting common stock, together as one class, are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of any preferred stock then outstanding.

Non-Voting Common Stock

We may issue shares of our non-voting common stock from time to time. Shares of our non-voting common stock do not have voting rights, except to the extent required by law. Aside from voting rights, all rights of holders of non-voting common stock are identical to the rights of holders of voting common stock. Our non-voting common stock automatically converts to voting common stock if it is transferred to a subsequent holder in a permitted transfer, as that term is defined in our amended and restated articles of incorporation.

A permitted transfer is a transfer (i) to an affiliate of the holder or to the Company, (ii) in a widespread public distribution, (iii) in transfers in which no transferee (or group of associated transferees) would receive 2% or more of any class of the voting securities of the Company, or (iv) to a transferee that would control more than 50% of the voting securities of the Company without any transfer from the transferor.

Preferred Stock and Depositary Shares

We may offer preferred stock in one or more series. The applicable prospectus supplement will describe for each offer of preferred stock the specific designation of the series offered; the aggregate number of shares offered; the rate and periods, or manner of calculating the rate and periods, for dividends, if any; the stated value and liquidation preference amount, if any; the redemption, liquidation and voting rights, if any; and any other specific terms. We may also offer depositary shares, each of which would represent an interest in a fractional

Table of Contents

share of preferred stock. We will issue the depositary shares under one or more deposit agreements to be entered into between us and one or more depositaries.

Warrants

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities. We will evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We may enter into warrant agreements with a bank or trust company that we select to be our warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

In this prospectus, we have summarized certain general features of the warrants. We urge you, however, to read the applicable prospectus supplement related to the particular series of warrants being offered, as well as the warrant agreements and warrant certificates that contain the terms of the warrants. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement or warrant certificate containing the terms of the warrants we are offering before the issuance of the warrants.

Debt Securities

We may offer debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsecured and unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all of our senior indebtedness. Convertible debt securities will be convertible into or exchangeable for our common stock or our other securities. Conversion may be mandatory or at your option or both and would be at prescribed conversion rates.

Units

We may issue units consisting of common stock, preferred stock, debt securities and/or warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. In this prospectus, we have summarized certain general features of the units. We urge you, however, to read the applicable prospectus supplement related to the series of units being offered, as well as the unit agreements that contain the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference reports that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

Purchase Contracts

We also may issue purchase contracts, including contracts obligating holders to purchase from us, and obligating us to sell to holders, a fixed or varying number of shares of common stock, preferred stock, depositary shares or debt securities at a future date or dates. The consideration per share of common stock, preferred stock, depositary shares or debt securities may be fixed at the time that purchase contracts are issued or may be determined by reference to a specific formula set forth in the purchase contracts. Any purchase contract may include anti-dilution provisions to adjust the number of shares issuable pursuant to such purchase contract upon the occurrence of certain events.

The purchase contracts may be issued separately or as a part of units with one or more other securities. These contracts, and the holders' obligations to purchase shares of our common stock, preferred stock, depositary

Table of Contents

shares or debt securities under the purchase contracts may be secured by cash, certificates of deposit, U.S. government securities that will mature prior to or simultaneously with, the maturity of the purchase contract, standby letters of credit from an affiliated U.S. bank that is FDIC-insured or other collateral satisfactory to the Federal Reserve. The purchase contracts may require us to make periodic payments to holders of the purchase units, or vice versa, and such payments may be unsecured or prefunded and may be paid on a current or on a deferred basis.

Any one or more of the above securities, common stock or the purchase contracts or other collateral may be pledged as security for the holders' obligations to purchase or sell, as the case may be, the common stock, preferred stock, depositary shares or debt securities under the purchase contracts.

Rights

We may offer rights to our existing shareholders to purchase additional shares of our common stock or any series of our preferred stock. For any particular subscription rights, the applicable prospectus supplement will describe the terms of such rights, including the period during which such rights may be exercised, the manner of exercising such rights, the transferability of such rights and the number of shares of common stock or preferred stock that may be purchased in connection with each right and the subscription price for the purchase of such common stock or preferred stock. In connection with a rights offering, we may enter into a separate agreement with one or more underwriters or standby purchasers to purchase any shares of our common stock or preferred stock not subscribed for in the rights offering by existing stockholders, which will be described in the applicable prospectus supplement.

Listing

If any securities are to be listed or quoted on a securities exchange or quotation system, the applicable prospectus supplement will so indicate. Our voting common stock is listed on the NASDAQ Global Select Market and trades under the symbol LOB.

Table of Contents

RISK FACTORS

Investing in our securities involves risk. Please see the Risk Factors section in the Company's most recent annual report on Form 10-K, along with a disclosure related to the risk factors contained in any of the Company's subsequent quarterly reports on Form 10-Q, which are incorporated herein by reference in this prospectus, as updated by our future filings with the SEC. Before making an investment decision, you should carefully consider these risks as well as other information contained or incorporated by reference in this prospectus and any prospectus supplement. The risks and uncertainties not presently known to the Company or that the Company currently deems immaterial may also impair its business operations, its financial results and the value of the securities. The prospectus supplement applicable to each type or series of securities we offer may contain a discussion of additional risks applicable to an investment in the Company and the particular type of securities we are offering under that prospectus supplement.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Statements included in this prospectus, including information incorporated herein by reference, which are not historical in nature are intended to be, and are hereby identified as, forward looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995.

These statements generally relate to the financial condition, results of operations, plans, objectives, future performance or business of Live Oak Bancshares, Inc. (the Company). They usually can be identified by the use of forward-looking terminology, such as believes, expects, or are expected to, plans, projects, goals, estimates, should, could, would, continues, intends to, outlook or anticipates, or variations of these and similar words, 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 prospectus. 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 prospectus 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 losses and provisions for those losses and other adverse impacts to results of operations and financial condition;

changes in Small Business Administration (SBA) rules, regulations and loan products, including specifically the Section 7(a) program, changes in SBA standard operating procedures or changes to the status of Live Oak Banking Company (the Bank) as an SBA Preferred Lender;

changes in rules, regulations or procedures for other government loan programs, including those of the United States Department of Agriculture;

changes in interest rates that affect the level and composition of deposits, loan demand and the values of loan collateral, securities, and interest sensitive assets and liabilities;

the failure of assumptions underlying the establishment of reserves for possible loan 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;

Table of Contents

the effects of competition from other commercial banks, non-bank lenders, consumer finance companies, credit unions, securities brokerage firms, insurance companies, money market and mutual funds, and other financial institutions operating in the Company's market area and elsewhere, including institutions operating regionally, nationally and internationally, together with such competitors offering banking products and services by mail, telephone and the Internet;

the Company's ability to attract and retain key personnel;

changes in governmental monetary and fiscal policies as well as other legislative and regulatory changes, including with respect to SBA lending programs and investment tax credits;

changes in political and economic conditions;

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;

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.

Some of the factors that could cause actual results to differ from those expressed or implied in forward-looking statements are incorporated by reference under "Risk Factors" in this prospectus and may be described in any prospectus supplement and in the "Risk Factors" and other sections of the documents that we incorporate by reference into this prospectus, including our Annual Reports on Form 10-K and our Quarterly Reports on Form 10-Q and in our other reports filed with the SEC. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual outcomes may vary materially from those anticipated. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their

entirety by reference to these risks and uncertainties. You should not place undue reliance on our forward-looking statements. 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.

Table of Contents

USE OF PROCEEDS

Unless otherwise specified in a prospectus supplement accompanying this prospectus, we currently intend to use the net proceeds from the sale of securities offered under this prospectus for general corporate purposes. General corporate purposes may include repayment of debt or the interest payments thereon, capital expenditures, possible acquisitions, investments and any other purposes that we may specify in any prospectus supplement. We may invest the net proceeds temporarily until we use them for their stated purpose. We cannot predict whether the proceeds invested will yield a favorable return.

PLAN OF DISTRIBUTION

We may sell securities offered under this prospectus:

through underwriters or dealers;

through agents;

directly to one or more purchasers; or

through a combination of any of these methods for sale.

The distribution of the securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed from time to time, or at negotiated prices. For each type and series of securities offered, the applicable prospectus supplement will set forth the terms of the offering, including, without limitation:

the names of any underwriters, dealers or agents;

the purchase price of the securities;

the use of proceeds to us from the sale of the securities;

any underwriting discounts, agency fees, or other compensation payable to underwriters or agents;

any discounts or concessions allowed or re-allowed or repaid to dealers; and

the securities exchanges on which the securities will be listed, if any.

If underwriters are used in an offering, we will execute an underwriting agreement with such underwriters and will specify the name of each underwriter and the terms of the transaction (including any underwriting discounts and other terms constituting compensation of the underwriters and any dealers) in a prospectus supplement. If we use underwriters in any sale of securities offered under this prospectus, the underwriters will buy the securities for their own account. The underwriters may then resell the securities in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale or thereafter. The underwriters may sell the securities directly or through underwriting syndicates managed by managing underwriters. The obligations of the underwriters to purchase the securities will be subject to certain conditions. The underwriters will be obligated to purchase all the securities offered if they purchase any securities. The offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time. In connection with an offering, underwriters and their affiliates may engage in transactions to stabilize, maintain or otherwise affect the market price of the securities in accordance with applicable law.

Underwriters or agents may make sales in privately negotiated transactions and/or any other method permitted by law, including sales deemed to be an at-the-market offering as defined in Rule 415 promulgated under the Securities Act, which includes sales made directly on the NASDAQ Global Select Market, the existing trading market for our voting common stock, or sales made to or through a market maker other than on an exchange.

Table of Contents

If we use dealers in any sale of securities offered under this prospectus, the securities will be sold to such dealers as principals. The dealers may then resell the securities to the public at varying prices to be determined by such dealers at the time of resale. If agents are used in any sale of securities offered under this prospectus, they will generally use their reasonable best efforts to solicit purchases for the period of their appointment. If securities offered under this prospectus are sold directly, no underwriters, dealers or agents would be involved. We are not making an offer of securities in any state that does not permit such an offer.

Underwriters, dealers and agents that participate in any distribution of securities may be deemed to be underwriters as defined in the Securities Act. Any discounts, commissions or profit they receive when they resell the securities may be treated as underwriting discounts and commissions under the Securities Act. We expect that any agreements we may enter into with underwriters, dealers and agents will include provisions indemnifying them against certain civil liabilities, including certain liabilities under the Securities Act, or providing for contributions with respect to payments that they may be required to make.

We may authorize underwriters, dealers or agents to solicit offers from certain institutions whereby the institution contractually agrees to purchase the securities offered under this prospectus from us on a future date at a specific price. This type of contract may be made only with institutions that we specifically approve. Such institutions could include banks, insurance companies, pension funds, investment companies and educational and charitable institutions. The underwriters, dealers or agents will not be responsible for the validity or performance of these contracts.

Sales of securities offered under this prospectus also may be effected by us from time to time in one or more types of transactions (which may, without limitation, include block transactions, special offerings, exchange distributions, secondary distributions, purchases by a broker or dealer, or other direct sales by us to one or more purchasers) on the NASDAQ Global Select Market or any other national securities exchange or automated trading and quotation system on which our common stock or other securities are listed, in the over-the-counter market, in transactions otherwise than on such exchanges and systems or the over-the-counter market, including negotiated transactions, through options transactions relating to the shares, or a combination of such methods of sale, at market prices prevailing at the time of sale, at negotiated prices or at fixed prices. Such transactions may or may not involve brokers or dealers. Any shares of our voting common stock offered under this prospectus will be listed on the NASDAQ Global Select Market, subject to notice of issuance.

Each issue of a new series of debt securities, preferred stock, depositary shares, purchase contracts, units, warrants and rights will be a new issue of securities with no established trading market, except as indicated in the applicable prospectus supplement. In addition, there is no established trading market for our non-voting common stock. It has not been established whether the underwriters, if any, of the securities offered under this prospectus will make a market in these securities. If a market in our non-voting common stock or any series of debt securities, preferred stock, depositary shares, purchase contracts, units, warrants and rights is made by any such underwriters, such market-making may be discontinued at any time without notice. We can give no assurance as to the liquidity of the trading market of these securities.

In order to facilitate the offering of any of the securities offered under this prospectus, the underwriters with respect to any such offering may, as described in the prospectus supplement, engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on these securities. Specifically, the underwriters may over-allot in connection with the offering, creating a short position in these securities for their own accounts. In addition, to cover over-allotments or to stabilize the price of these securities or of any other securities, the underwriters may bid for, and purchase, these securities or any other securities in the open market. Finally, in any offering of the securities offered under this prospectus through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a

dealer for distributing these securities in the offering, if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of these securities above

Table of Contents

independent market levels. The underwriters are not required to engage in these activities, and may end any of these activities at any time, all as described in the applicable prospectus supplement.

If so indicated in the applicable prospectus supplement, one or more firms, which we refer to as remarketing firms, acting as principals for their own accounts or as agents for us, may offer and sell the securities offered under this prospectus as part of a remarketing upon their purchase, in accordance with their terms. We will identify any remarketing firm, the terms of its agreement, if any, with us and its compensation in the applicable prospectus supplement.

Remarketing firms, agents, underwriters and dealers may be entitled under agreements with us to indemnification by or contribution from us against some civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

Any person participating in the distribution of securities will be subject to applicable provisions of the Exchange Act and the rules and regulations under the Exchange Act, including without limitation, Regulation M, which may limit the timing of transactions involving the securities offered under this prospectus. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of such securities to engage in market-making activities with respect to the particular securities being distributed. All of the above may affect the marketability of the securities offered under this prospectus and the ability of any person or entity to engage in market-making activities with respect to such securities.

Under the securities laws of various states, the securities offered under this prospectus may be sold in those states only through registered or licensed brokers or dealers. In addition, in various states the securities offered under this prospectus may not be offered and sold unless such securities have been registered or qualified for sale in the state or an exemption from such registration or qualification is available and is complied with.

DESCRIPTION OF VOTING AND NON-VOTING COMMON STOCK, NO PAR VALUE PER SHARE

Voting Rights. Each share of our voting common stock entitles the holder thereof to one vote on all matters upon which shareholders have the right to vote. Our shareholders are not entitled to cumulate their votes for the election of directors. Shares of our non-voting common stock do not have voting rights, except to the extent otherwise required by law.

Dividends. Subject to preferences to which holders of any shares of our preferred stock may be entitled, holders of our common stock are entitled to receive ratably any dividends that may be declared from time to time by the board of directors out of funds legally available for that purpose. Under North Carolina law, we are authorized to pay dividends as declared by our board of directors, provided that no such distribution results in our insolvency on a going concern or balance sheet basis. However, although we are a legal entity separate and distinct from the Bank, our principal source of funds with which we can pay dividends to our shareholders is dividends we receive from the Bank. For that reason, our ability to pay dividends is effectively subject to the same limitations that apply to the Bank. The Bank's ability to pay dividends to us is subject to regulatory restrictions that apply to North Carolina chartered commercial banks.

No Preemptive Rights. With the exception of contractual preemptive rights granted to certain of our institutional shareholders, holders of our common stock do not have preemptive, conversion or subscription rights to acquire other or additional shares of any class of stock or other securities we may issue in the future.

Liquidation. In the event of any liquidation, dissolution or winding up of our affairs, the holders of shares of our common stock are entitled to receive, after payment of all debts and liabilities, all of our remaining assets available for distribution in cash or in kind. In the event of any liquidation, dissolution or winding up of the

Table of Contents

Bank, we, as the sole shareholder of the Bank's common stock, would be entitled to receive all remaining assets of the Bank available for distribution in cash or in kind after payment of all debts and liabilities of the Bank including all deposits and accrued interest on deposits.

Miscellaneous. Holders of our common stock do not have any redemption, sinking fund or conversion rights. Broadridge Corporate Issuer Solutions, Inc., Edgewood, New York, acts as registrar and transfer agent for our common stock. The rights of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any other series of preferred stock that we may establish in the future. See Charter, Bylaw, and Statutory Provisions Having Potential Anti-Takeover Effects.

NASDAQ Global Select Market. Our voting common stock is listed for quotation on the NASDAQ Global Select Market under the symbol LOB. On July 11, 2017, the last reported sale price of our voting common stock was \$24.35 per share.

DESCRIPTION OF PREFERRED STOCK

The following outlines the general provisions of the shares of preferred stock, no par value per share, which we may offer from time to time. The specific terms of a series of preferred stock will be described in the applicable prospectus supplement relating to that series of preferred stock. The following description of the preferred stock and any description of preferred stock in a prospectus supplement is only a summary and is subject to and qualified in its entirety by reference to the articles of amendment to our articles of incorporation relating to the particular series of preferred stock, a copy of which we will file with the SEC in connection with the sale of any series of preferred stock.

General. Under our articles of incorporation, our board of directors is authorized, without shareholder approval, to adopt resolutions providing for the issuance of up to 1,000,000 shares of preferred stock, no par value per share, in one or more series. As of the date of this prospectus, no shares of our preferred stock are issued and outstanding.

Our board of directors may fix the voting powers, designations, preferences, rights, qualifications, limitations and restrictions of each series of preferred stock that we may offer.

In addition, as described under Description of Depositary Shares, we may, instead of offering full shares of any series of preferred stock, offer depositary shares evidenced by depositary receipts, each representing a fraction of a share of the particular series of preferred stock issued and deposited with a depositary. The fraction of a share of preferred stock which each depositary share represents will be set forth in the prospectus supplement relating to such depositary shares.

The prospectus supplement relating to a particular series of preferred stock will contain a description of the specific terms of that series, including, as applicable:

the title, designation, number of shares and stated or liquidation value of the preferred stock;

the dividend amount or rate or method of calculation, the payment dates for dividends and the place or places where the dividends will be paid, whether dividends will be cumulative or noncumulative, and, if cumulative, the dates from which dividends will begin to accrue;

any conversion or exchange rights;

whether the preferred stock will be subject to redemption and the redemption price and other terms and conditions relative to the redemption rights;

any liquidation rights;

Table of Contents

any sinking fund provisions;

any voting rights;

the exchange or market, if any, where the preferred stock will be listed or traded; and

any other rights, preferences, privileges, limitations and restrictions that are not inconsistent with the terms of the our articles of incorporation.

Upon the issuance and payment for shares of preferred stock, the shares will be fully paid and nonassessable. Except as otherwise may be specified in the prospectus supplement relating to a particular series of preferred stock, holders of preferred stock will not have any preemptive or subscription rights to acquire any class or series of our capital stock and each series of preferred stock will rank on a parity in all respects with each other series of our preferred stock and prior to our common stock as to dividends and any distribution of our assets.

The authorization of the preferred stock could have the effect of making it more difficult or time consuming for a third party to acquire a majority of our outstanding voting stock or otherwise effect a change of control. Shares of the preferred stock may also be sold to third parties that indicate that they would support the board of directors in opposing a hostile takeover bid. The availability of the preferred stock could have the effect of delaying a change of control and of increasing the consideration ultimately paid to our stockholders. The board of directors may authorize the issuance of preferred stock for capital-raising activities, acquisitions, joint ventures or other corporate purposes that have the effect of making an acquisition of the Company more difficult or costly, as could also be the case if the board of directors were to issue additional common stock for such purposes. See Charter, Bylaw and Statutory Provisions Having Potential Anti-Takeover Effects.

Redemption. If so specified in the applicable prospectus supplement, a series of preferred stock may be redeemable at any time, in whole or in part, at our option, and may be mandatorily redeemable or convertible. Restrictions, if any, on the repurchase or redemption by us of any series of our preferred stock will be described in the applicable prospectus supplement relating to that series. Generally, any redemption of our preferred stock will be subject to prior Federal Reserve approval. Any partial redemption of a series of preferred stock would be made in the manner described in the applicable prospectus supplement relating to that series.

Upon the redemption date of shares of preferred stock called for redemption or upon our earlier call and deposit of the redemption price, all rights of holders of the preferred stock called for redemption will terminate, except for the right to receive the redemption price.

Dividends. Holders of each series of preferred stock will be entitled to receive cash dividends only when, as and if declared by our board of directors out of funds legally available for dividends. The rates or amounts and dates of payment of dividends will be described in the applicable prospectus supplement relating to each series of preferred stock. Dividends will be payable to holders of record of preferred stock on the record dates fixed by our board of directors. Dividends on any series of preferred stock may be cumulative or noncumulative, as described in the applicable prospectus supplement.

Our board of directors may not declare, pay or set apart funds for payment of dividends on a particular series of preferred stock unless full dividends on any other series of preferred stock that ranks equally with or senior to such series of preferred stock with respect to the payments of dividends have been paid or sufficient funds have been set

apart for payment for either of the following:

all prior dividend periods of each such series of preferred stock that pay dividends on a cumulative basis; or

the immediately preceding dividend period of each such series of preferred stock that pays dividends on a noncumulative basis.

Table of Contents

Partial dividends declared on shares of any series of preferred stock and other series of preferred stock ranking on an equal basis as to dividends will be declared pro rata. A pro rata declaration means that the ratio of dividends declared per share to accrued dividends per share will be the same for all series of preferred stock of equal priority.

Liquidation Preference. In the event of the liquidation, dissolution or winding-up of the Company, holders of each series of preferred stock will have the right to receive distributions upon liquidation in the amount described in the applicable prospectus supplement relating to each series of preferred stock, plus an amount equal to any accrued but unpaid dividends. These distributions will be made before any distribution is made on our common stock or on any securities ranking junior to such preferred stock upon liquidation, dissolution or winding-up.

However, holders of the shares of preferred stock will not be entitled to receive the liquidation price of their shares until we have paid or set aside an amount sufficient to pay in full the liquidation preference of any class or series of our capital stock ranking senior as to rights upon liquidation, dissolution or winding up. Unless otherwise provided in the applicable prospectus supplement, neither a consolidation or merger of the Company with or into another corporation nor a merger of another corporation with or into the Company nor a sale or transfer of all or part of the Company's assets for cash or securities will be considered a liquidation, dissolution or winding up of the Company.

If the liquidation amounts payable to holders of preferred stock of all series ranking on a parity regarding liquidation are not paid in full, the holders of the preferred stock of these series will have the right to a ratable portion of our available assets up to the full liquidation preference. Holders of these series of preferred stock or such other securities will not be entitled to any other amounts from us after they have received their full liquidation preference.

Conversion and Exchange. The prospectus supplement will indicate whether and on what terms the shares of any future series of preferred stock will be convertible into or exchangeable for shares of any other class, series or security of the Company or any other corporation or any other property (including whether the conversion or exchange is mandatory, at the option of the holder or our option, the period during which conversion or exchange may occur, the initial conversion or exchange price or rate and the circumstances or manner in which the amount of common or preferred stock or other securities issuable upon conversion or exchange may be adjusted). It will also indicate for preferred stock convertible into common stock, the number of shares of common stock to be reserved in connection with, and issued upon conversion of, the preferred stock (including whether the conversion or exchange is mandatory, the initial conversion or exchange price or rate and the circumstances or manner in which the amount of common stock issuable upon conversion or exchange may be adjusted) at the option of the holder or our option and the period during which conversion or exchange may occur.

Voting Rights. The holders of shares of preferred stock will have no voting rights, except:

as otherwise stated in the applicable prospectus supplement;

as otherwise stated in the articles of amendment to our articles of incorporation establishing the series of such preferred stock; and

as otherwise required by applicable law.

Transfer Agent and Registrar. The transfer agent, registrar, dividend paying agent and depositary, if any, for any preferred stock offering will be stated in the applicable prospectus supplement.

DESCRIPTION OF DEPOSITARY SHARES

The following briefly summarizes the general provisions of the depositary shares representing a fraction of a share of preferred stock of a specific series, or depositary shares, and depositary receipts (as defined below) that we may issue from time to time and which would be important to holders of depositary receipts. The specific

Table of Contents

terms of any depositary shares or depositary receipts, including pricing and related terms, will be disclosed in the applicable prospectus supplement. The prospectus supplement will also state whether any of the general provisions summarized below apply or not to the depositary shares or depositary receipts being offered. The following description and any description in a prospectus supplement is a summary only and is subject to, and qualified in its entirety by reference to the terms and provisions of the deposit agreement(s), which we will file with the SEC in connection with an issuance of depositary shares.

Description of Depositary Shares. We may offer depositary shares evidenced by receipts for such depositary shares, which we sometimes refer to as depositary receipts. Each depositary receipt represents a fraction of a share of the particular series of preferred stock issued and deposited with a depositary. The fraction of a share of preferred stock which each depositary share represents will be set forth in the applicable prospectus supplement.

We will deposit the shares of any series of preferred stock represented by depositary shares according to the provisions of a deposit agreement to be entered into between us and a bank or trust company, which we will select as our preferred stock depositary, and which may be the same institution that serves as an indenture trustee. The depositary must have its principal office in the United States and have combined capital and surplus of at least \$100,000,000. We will name the depositary in the applicable prospectus supplement. Each owner of a depositary share will be entitled to all the rights and preferences of the underlying preferred stock in proportion to the applicable fraction of a share of preferred stock represented by the depositary share. These rights include dividend, voting, redemption, conversion and liquidation rights. The depositary will send the holders of depositary shares all reports and communications that we deliver to the depositary and which we are required to furnish to the holders of depositary shares. We may issue depositary receipts in temporary, definitive or book-entry form.

Withdrawal of Preferred Stock. A holder of depositary shares may receive the number of whole shares of the series of preferred stock and any money or other property represented by the holder's depositary receipts after surrendering the depositary receipts at the corporate trust office of the depositary. Partial shares of preferred stock will not be issued. If the surrendered depositary shares exceed the number of depositary shares that represent the number of whole shares of preferred stock the holder wishes to withdraw, then the depositary will deliver to the holder at the same time a new depositary receipt evidencing the excess number of depositary shares. Once the holder has withdrawn the preferred stock, the holder will not be entitled to re-deposit such preferred stock under the deposit agreement or to receive depositary shares in exchange for such preferred stock.

Dividends and Other Distributions. Holders of depositary shares of any series will receive their pro rata share of cash dividends or other cash distributions received by the depositary on the preferred stock of that series held by it. Each holder will receive these distributions in proportion to the number of depositary shares owned by the holder. The depositary will distribute only whole United States dollars and cents. The depositary will add any fractional cents not distributed to the next sum received for distribution to record holders of depositary shares. In the event of a non-cash distribution, the depositary will distribute property to the record holders of depositary shares, unless the depositary determines that it is not feasible to make such a distribution. If this occurs, the depositary, with our approval, may sell the property and distribute the net proceeds from the sale to the holders.

Redemption of Depositary Shares. If a series of preferred stock represented by depositary shares is subject to redemption, then we will give the necessary proceeds to the depositary. The depositary will then redeem the depositary shares using the funds they received from us for the preferred stock. The depositary will notify the record holders of the depositary shares to be redeemed not less than 30 days nor more than 60 days before the date fixed for redemption at the holders' addresses appearing in the depositary's books. The redemption price per depositary share will be equal to the redemption price payable per share for the applicable series of the preferred stock and any other amounts per share payable with respect to that series of preferred stock multiplied by the fraction of a share of

preferred stock represented by one depositary share. Whenever we redeem shares of a series of preferred stock held by the depositary, the depositary will redeem the depositary shares representing the shares

Table of Contents

of preferred stock on the same day. If fewer than all the depositary shares of a series are to be redeemed, the depositary shares will be selected by lot, ratably or by such other equitable method as we and the depositary may determine.

Upon and after the redemption of shares of the underlying series of preferred stock, the depositary shares called for redemption will no longer be considered outstanding. Therefore, all rights of holders of the depositary shares will then cease, except that the holders will still be entitled to receive any cash payable upon the redemption and any money or other property to which the holder was entitled at the time of redemption.

Voting Rights. Upon receipt of notice of any meeting at which the holders of preferred stock of the related series are entitled to vote, the depositary will notify holders of depositary shares of the upcoming vote and arrange to deliver our voting materials to the holders. The record date for determining holders of depositary shares that are entitled to vote will be the same as the record date for the related series of preferred stock. The materials the holders will receive will (1) describe the matters to be voted on and (2) explain how the holders, on a certain date, may instruct the depositary to vote the shares of preferred stock underlying the depositary shares. For instructions to be valid, the depositary must receive them on or before the date specified. The depositary will attempt, as far as practical, to vote the shares as instructed by the holder. We will cooperate with the depositary to enable it to vote as instructed by holders of depositary shares. If any holder does not instruct the depositary how to vote the holder's shares, the depositary will abstain from voting those shares.

Conversion or Exchange. The depositary will convert or exchange all depositary shares on the same day that the preferred stock underlying the depositary shares is converted or exchanged. In order for the depositary to do so, we will deposit with the depositary any other preferred stock, common stock or other securities into which the preferred stock is to be converted or for which it will be exchanged.

The exchange or conversion rate per depositary share will be equal to the exchange or conversion rate per share of preferred stock, multiplied by the fraction of a share of preferred stock represented by one depositary share. All amounts per depositary share payable by us for dividends that have accrued on the preferred stock to the exchange or conversion date that have not yet been paid shall be paid in appropriate amounts on the depositary shares.

The depositary shares, as such, cannot be converted or exchanged into other preferred stock, common stock, securities of another issuer or any other of our securities or property. Nevertheless, if so specified in the applicable prospectus supplement, a holder of depositary shares may be able to surrender the depositary receipts to the depositary with written instructions asking the depositary to instruct us to convert or exchange the preferred stock represented by the depositary shares into other shares of preferred stock or common stock or to exchange the preferred stock for securities of another issuer. If the depositary shares carry this right, we would agree that, upon the payment of applicable fees and taxes, if any, we will cause the conversion or exchange of the preferred stock using the same procedures as we use for the delivery of preferred stock. If a holder is only converting part of the depositary shares represented by a depositary receipt, new depositary receipts will be issued for any depositary shares that are not converted or exchanged.

Amendment and Termination of the Deposit Agreement. We may agree with the depositary to amend the deposit agreement and the form of depositary receipt without consent of the holder at any time. However, if the amendment adds or increases fees or charges payable by holders of the depositary shares or prejudices an important right of holders, it will only become effective with the approval of holders of at least a majority of the affected depositary shares then outstanding. If an amendment becomes effective, holders are deemed to agree to the amendment and to be bound by the amended deposit agreement if they continue to hold their depositary receipts.

The deposit agreement will automatically terminate if:

all outstanding depositary shares have been redeemed and all amounts payable upon redemption have been paid;

Table of Contents

each share of preferred stock held by the depositary has been converted into or exchanged for common stock, other preferred stock or other securities; or

a final distribution in respect of the preferred stock held by the depositary has been made to the holders of depositary receipts in connection with our liquidation, dissolution or winding-up.

We may also terminate the deposit agreement at any time. Upon such event, the depositary will give notice of termination to the holders not less than 30 days before the termination date. Once depositary receipts are surrendered to the depositary, it will send to each holder the number of whole and fractional shares of the series of preferred stock underlying that holder's depositary receipts, provided that, at our election we may pay cash in lieu of fractional shares of preferred stock that may be issuable.

Charges of Depositary and Expenses. We will pay all transfer and other taxes and governmental charges in connection with the establishment of the depositary arrangements. We will pay all charges and fees of the depositary for the initial deposit of the preferred stock, the depositary's services and redemption of the preferred stock. Holders of depositary shares will pay transfer and other taxes and governmental charges and the charges that are provided in the deposit agreement to be for the holder's account.

Limitations on Our Obligations and Liability to Holders of Depositary Receipts. The deposit agreement will limit our obligations and the obligations of the depositary. It will also limit our liability and the liability of the depositary as follows:

We and the depositary will only be obligated to take the actions specifically set forth in the deposit agreement in good faith;

We and the depositary will not be liable if either is prevented or delayed by law or circumstances beyond our or its control from performing our or its obligations under the deposit agreement;

We and the depositary will not be liable if either exercises discretion permitted under the deposit agreement;

We and the depositary will have no obligation to become involved in any legal or other proceeding related to the depositary receipts or the deposit agreement on behalf of the holders of depositary receipts or any other party, unless we and the depositary are provided with satisfactory indemnity; and

We and the depositary will be permitted to rely upon any written advice of counsel or accountants and on any documents we believe in good faith to be genuine and to have been signed or presented by the proper party.

In the deposit agreement, we will agree to indemnify the depositary under certain circumstances.

Resignation and Removal of Depositary. The depositary may resign at any time by notifying us of its election to do so. In addition, we may remove the depositary at any time. Such resignation or removal will take effect when we appoint a successor depositary and it accepts the appointment. We must appoint the successor depositary within 60

days after delivery of the notice of resignation or removal and the new depository must be a bank or trust company having its principal office in the United States and having a combined capital and surplus of at least \$100,000,000.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provisions of any debt securities that we may offer under this prospectus. While the terms we have summarized below will apply generally to any future debt securities we may offer, we will describe the particular terms of any debt securities that we may offer in more detail in the

Table of Contents

applicable prospectus supplement. The terms of any debt securities we may offer under a prospectus supplement may differ from the terms described below. For any debt securities that we may offer, an indenture (and any relevant supplemental indenture) will contain additional important terms and provisions, the form of which we filed as an exhibit to the registration statement of which this prospectus is a part and is incorporated therein by reference. We will file any definitive indenture as an exhibit to reports that we file with the SEC and incorporate by reference in this prospectus and the applicable prospectus supplement. Any indenture would be qualified under the Trust Indenture Act of 1939.

Terms of Debt Securities. With respect to any debt securities that we issue, we will describe in each prospectus supplement the following terms relating to a series of debt securities:

the title;

the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;

any limit on the amount that may be issued;

whether or not we will issue the series of debt securities in global form, and if so, the terms and who the depository will be;

the maturity date;

the principal amount due at maturity;

whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;

the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

whether or not the debt securities will be convertible into shares of our common stock or our preferred stock and, if so, the terms of such conversion;

whether or not the debt securities will be secured or unsecured by some or all of our assets, and the terms of any secured debt;

the terms of the subordination of any series of subordinated debt;

the place where payments will be payable;

restrictions on transfer, sale or other assignment, if any;

our right, if any, to defer payment or interest and the maximum length of any such deferral period;

the date, if any, after which and the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemptions provisions;

the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;

whether the indenture will restrict our ability to pay dividends, or will require us to maintain any asset ratios or reserves;

whether we will be restricted from incurring any additional indebtedness, issuing additional securities, or entering into a merger, consolidation or sale of our business;

Table of Contents

a discussion of any material or special United States federal income tax considerations applicable to the debt securities;

information describing any book-entry features;

any provisions for payment of additional amounts for taxes;

whether the debt securities are to be offered at a price such that they will be deemed to be offered at an original issue discount as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;

the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;

events of default;

whether we and/or the indenture trustee may change an indenture without the consent of any holders;

the form of debt security and how it may be exchanged and transferred;

description of the indenture trustee and paying agent, and the method of payments; and

any other specified terms, preferences, rights or limitations of, or restrictions on, the debt securities and any terms that may be required by us or advisable under applicable laws or regulations.

Terms of Indenture. We summarize below the material terms of the form of indenture or indicate which material terms will be described in the applicable prospectus supplement. The indenture:

does not limit the amount of debt securities that we may issue;

allows us to issue debt securities in one or more series;

does not require us to issue all of the debt securities of a series at the same time;

allows us to reopen a series to issue additional debt securities without the consent of the holders of the debt securities of such series; and

provides that the debt securities will be unsecured, except as may be set forth in the applicable prospectus supplement.

DESCRIPTION OF WARRANTS

For purposes of this section, the terms we, our and us refer only to Live Oak Bancshares, Inc., and not to its subsidiaries.

General. We may issue warrants in one or more series to purchase senior debt securities, subordinated debt securities, preferred stock, depositary shares, common stock or any combination of these securities. Warrants may be issued independently or together with any underlying securities and may be attached to or separate from the underlying securities. We will issue each series of warrants under a separate warrant agreement to be entered into between us and a warrant agent. The warrant agent will act solely as our agent in connection with the warrants of such series and will not assume any obligation or relationship of agency for or on behalf of holders or beneficial owners of warrants. The following outlines some of the general terms and provisions of the warrants. Further terms of the warrants and the applicable warrant agreement will be stated in the applicable prospectus supplement. The following description and any description of the warrants in a prospectus supplement are not complete and are subject to and qualified in their entirety by reference to the terms and provisions of the warrant agreement, which we will file with the SEC in connection with the issuance of any warrants.

Table of Contents

The applicable prospectus supplement will describe the terms of any warrants, including the following, as may be applicable:

the title of the warrants;

the total number of warrants to be issued and the amount of warrants outstanding;

the consideration for which we will issue the warrants, including the applicable currency or currencies;

anti-dilution provisions to adjust the number of shares of our common stock or other securities to be delivered upon exercise of the warrants;

the designation and terms of the underlying securities purchasable upon exercise of the warrants;

the price at which and the currency or currencies in which investors may purchase the underlying securities purchasable upon exercise of the warrants and provisions for changes to or adjustments in the exercise price;

the dates on which the right to exercise the warrants will commence and expire;

the procedures and conditions relating to the exercise of the warrants;

whether the warrants will be in registered or bearer form;

information with respect to book-entry registration and transfer procedures, if any;

the minimum or maximum amount of warrants which may be exercised at any one time;

the designation and terms of the underlying securities with which the warrants are issued and the number of warrants issued with each underlying security;

the date on and after which the warrants and securities issued with the warrants will be separately transferable;

a discussion of material United States federal income tax considerations;

the identity of the warrant agent; and

any other terms of the warrants, including terms, procedures and limitations relating to the exchange, transfer and exercise of the warrants.

Warrant certificates may be exchanged for new warrant certificates of different denominations, and warrants may be exercised at the warrant agent's corporate trust office or any other office indicated in the applicable prospectus supplement. Prior to the exercise of their warrants, holders of warrants exercisable for debt securities will not have any of the rights of holders of the debt securities purchasable upon such exercise and will not be entitled to payments of principal (or premium, if any) or interest, if any, on the debt securities purchasable upon such exercise. Prior to the exercise of their warrants, holders of warrants exercisable for shares of common stock, preferred stock or depositary shares will not have any rights of holders of the common stock, preferred stock or depositary shares purchasable upon such exercise, including any rights to vote such shares or to receive any distributions or dividends thereon.

Exercise of Warrants. A warrant will entitle the holder to purchase for cash an amount of securities at an exercise price that will be stated in, or that will be determinable as described in, the applicable prospectus supplement. Warrants may be exercised at any time prior to the close of business on the expiration date and in accordance with the procedures set forth in the applicable prospectus supplement. Upon and after the close of business on the expiration date, unexercised warrants will be void and have no further force, effect or value.

Enforceability of Rights. The holders of warrants, without the consent of the warrant agent, may, on their own behalf and for their own benefit, enforce, and may institute and maintain any suit, action or proceeding against us to enforce their rights to exercise and receive the securities purchasable upon exercise of their warrants.

Table of Contents

DESCRIPTION OF UNITS

We also may offer two or more of the securities described in this prospectus in the form of a unit, including pursuant to a unit agreement. The unit may be transferable only as a whole, or the securities that make up a unit may, as described in the prospectus supplement, be separated and transferred by the holder separately. There may or may not be an active market for units or the underlying securities, and not all the securities comprising a unit may be listed or traded on a securities exchange or market.

DESCRIPTION OF PURCHASE CONTRACTS

We also may issue purchase contracts, including contracts obligating holders to purchase from us, and obligating us to sell to holders, a fixed or varying number of shares of common stock, preferred stock, depositary shares or debt securities at a future date or dates. The consideration per share of common stock, preferred stock, depositary shares or debt securities may be fixed at the time that the purchase contracts are issued or may be determined by reference to a specific formula set forth in the purchase contracts. Any purchase contract may include anti-dilution provisions to adjust the number of shares issuable pursuant to such purchase contract upon the occurrence of certain events.

The purchase contracts may be issued separately or as a part of units consisting of a purchase contract, debt securities and preferred securities. These contracts, and the holders' obligations to purchase shares of our common stock, preferred stock, depositary shares or debt securities under the purchase contracts may be secured by cash, certificates of deposit, U.S. government securities that will mature prior to or simultaneously with, the maturity of the purchase contract, standby letters of credit from an affiliated U.S. bank that is FDIC-insured or other collateral satisfactory to the Federal Reserve. The purchase contracts may require us to make periodic payments to holders of the purchase units, or vice versa, and such payments may be unsecured or prefunded and may be paid on a current or on a deferred basis.

Any one or more of the above securities, common stock or the purchase contracts or other collateral may be pledged as security for the holders' obligations to purchase or sell, as the case may be, the common stock or preferred stock under the purchase contracts.

DESCRIPTION OF RIGHTS

For purpose of this section, the terms *we*, *our*, *our* and *us* refer only to Live Oak Bancshares, Inc., and not to its subsidiaries.

The following briefly summarizes the general provisions of rights that we may offer to purchase additional shares of our common stock or any series of preferred stock, which we may issue. The following description and any description in a prospectus supplement is a summary only and is subject to, and qualified in its entirety by reference to the terms and provisions of the rights, which we will file with the SEC in connection with an issuance of rights to holders of our common stock or any series of our preferred stock. The specific terms of any rights, including the period during which the rights may be exercised, the manner of exercising such rights, and the transferability of rights, will be disclosed in the applicable prospectus supplement. Although we may issue rights, in our sole discretion, we have no obligation to do so.

General. We may distribute rights, which may or may not be transferable, to the holders of our common stock or any series of our preferred stock as of a record date set by our board of directors, at no cost to such holders. Each holder will be given the right to purchase a specified number of whole shares of our common stock or preferred stock for every share of our common stock or a series of preferred stock that the holder thereof owned on such record date, as

set forth in the applicable prospectus supplement. Unless otherwise provided in an

Table of Contents

applicable prospectus supplement, no fractional rights or rights to purchase fractional shares will be distributed in any rights offering. The rights will be evidenced by rights certificates, which may be in definitive or book-entry form. Each right will entitle the holder to purchase shares of our common stock or a series of preferred stock at a rate and price per share to be established by our board of directors, as set forth in the applicable prospectus supplement. If holders of rights wish to exercise their rights, they must do so before the expiration date of the rights offering, as set forth in the applicable prospectus supplement. Upon the expiration date, the rights will expire and will no longer be exercisable, unless, in our sole discretion prior to the expiration date, we extend the rights offering.

Exercise Price. Our board of directors will determine the exercise price or prices for the rights based upon a number of factors, including, without limitation, our business prospects; our capital requirements; the price or prices at which an underwriter or standby purchasers may be willing to purchase shares that remain unsold in the rights offering; and general conditions in the securities markets, especially for securities of financial institutions. The subscription price may or may not reflect the actual or long-term fair value of the common stock or preferred stock offered in the rights offering. We provide no assurances as to the market values or liquidity of any rights issued, or as to whether or not the market prices of the common stock or preferred stock subject to the rights will be more or less than the rights exercise price during the term of the rights or after the rights expire.

Exercising Rights; Fees and Expenses. The manner of exercising rights will be set forth in the applicable prospectus supplement. Any subscription agent or escrow agent will be set forth in the applicable prospectus supplement. We will pay all fees charged by any subscription agent and escrow agent in connection with the distribution and exercise of rights. Rights holders will be responsible for paying all other commissions, fees, taxes or other expenses incurred in connection with their transfer of rights that are transferable. Neither we nor the subscription agent will pay such expenses.

The applicable prospectus supplement will set forth the expiration date and time (*Expiration Date*) for exercising rights. If holders of rights do not exercise their rights prior to such time, their rights will expire and will no longer be exercisable and will have no value.

We will extend the *Expiration Date* as required by applicable law and may, in our sole discretion, extend the *Expiration Date*. If we elect to extend the *Expiration Date*, we will issue a press release announcing such extension prior to the scheduled *Expiration Date*.

Withdrawal and Termination. We may withdraw the rights offering at any time prior to the *Expiration Date* for any reason. We may terminate the rights offering, in whole or in part, at any time before completion of the rights offering if there is any judgment, order, decree, injunction, statute, law or regulation entered, enacted, amended or held to be applicable to the rights offering that in the sole judgment of our board of directors would or might make the rights offering or its completion, whether in whole or in part, illegal or otherwise restrict or prohibit completion of the rights offering. We may waive any of these conditions and choose to proceed with the rights offering even if one or more of these events occur. If we terminate the rights offering, in whole or in part, all affected rights will expire without value, and all subscription payments received by the subscription agent will be returned promptly without interest.

Rights of Subscribers. Holders of rights will have no rights as stockholders with respect to the shares of common stock or preferred stock for which the rights may be exercised until they have exercised their rights by payment in full of the exercise price and in the manner provided in the prospectus supplement, and such shares of common stock or preferred stock, as applicable, have been issued to such persons. Holders of rights will have no right to revoke their subscriptions or receive their monies back after they have completed and delivered the materials required to exercise their rights and have paid the exercise price to the subscription agent. All exercises of rights are final and cannot be revoked by the holder of rights.

Regulatory Limitations. We will not be required to issue any person or group of persons shares of our common stock or preferred stock pursuant to the rights offering if, in our sole opinion, such person would be

Table of Contents

required to give prior notice to or obtain prior approval from, any state or federal governmental authority to own or control such shares if, at the time the rights offering is scheduled to expire, such person has not obtained such clearance or approval in form and substance reasonably satisfactory to us.

Standby Agreements. We may enter into one or more separate agreements with one or more standby underwriters or other persons to purchase, for their own account or on our behalf, any shares of our common stock or preferred stock not subscribed for in the rights offering. The terms of any such agreements will be described in the applicable prospectus supplement.

CHARTER, BYLAW AND STATUTORY PROVISIONS HAVING POTENTIAL ANTI-TAKEOVER EFFECTS

The following paragraphs summarize certain provisions of our articles of incorporation, bylaws and North Carolina law that may have the effect, or be used as a means, of delaying or preventing attempts to acquire or take control of the Company, or to remove or replace incumbent directors, that are not first approved by our board of directors, even if those proposed actions are favored by our shareholders.

Authorized Shares. Our amended and restated articles of incorporation currently authorize the issuance of 110,000,000 shares of common stock and 1,000,000 shares of preferred stock. Our board of directors is authorized to approve the issuance of shares of our common stock or preferred stock from time to time and, in the case of preferred stock, to create separate series of preferred stock within the class, and to determine the number of shares, designations, terms, relative rights, preferences and limitations of the preferred stock, or of shares within each series of preferred stock, at the time of issuance, all by its resolution. Those provisions give our board of directors considerable flexibility to effect, among other transactions, financings, acquisitions, stock dividends, stock splits and grants of stock options. However, the board's authority also could be used, consistent with the board's fiduciary duty, to deter future attempts to gain control of the Company by issuing additional common stock, or by issuing a series of preferred stock, to persons friendly to management in order to attempt to block a tender offer, merger or other transaction by which a third party seeks to gain control.

Advance Notice of Director Nominations. Our bylaws provide that in order to be eligible for consideration at a meeting of shareholders, all nominations for election to the board of directors, other than those made by the board of directors or a duly appointed committee thereof, must be in writing and must be delivered to the Corporate Secretary of the Company not less than 120 days prior to the meeting of shareholders at which nominees for director will be considered for election to the board of directors. Only shareholders may make recommendations for nominations and any shareholder making such a nomination must submit a detailed resume of the nominee, stating the reasons why such person would be qualified to serve on the board of directors and the written consent of the nominee to serve as a member of the board of directors if elected.

Special Meetings of Shareholders. Our bylaws provide that special meetings of our shareholders may be called only by or at the direction of (a) the Chairman of our board of directors, (b) the President of the Company, or (c) the Corporate Secretary of the Company at the request of the board of directors of the Company or shareholders holding fifteen (15%) or more of our outstanding shares of voting common stock.

Amendment of Bylaws. Subject to certain limitations under North Carolina law, our bylaws may be amended or repealed by either our board of directors or our shareholders. Therefore, our Board is authorized to amend or repeal bylaws without the approval of our shareholders. However, a bylaw adopted, amended or repealed by our shareholders may not be readopted, amended or repealed by the board alone unless our articles of incorporation or a bylaw adopted by our shareholders authorizes the board to adopt, amend or repeal that particular bylaw or the bylaws generally.

Certain Provisions of Federal Law. The acquisition of more than 10% of our outstanding common stock may, in certain circumstances, be subject to the provisions of the Change in Bank Control Act of 1978. The FDIC

Table of Contents

has also adopted a regulation pursuant to the Change in Bank Control Act which generally requires persons who at any time intend to acquire control of an FDIC-insured state-chartered non-member bank, either directly or indirectly through an acquisition of control of its holding company, to provide 60 days prior written notice and certain financial and other information to the FDIC. Control for the purpose of this Act exists in situations in which the acquiring party has voting control of at least 25% of any class of voting stock or the power to direct the management or policies of the bank or the holding company. However, under FDIC regulations, control is presumed to exist where the acquiring party has voting control of at least 10% of any class of voting securities if (a) the bank or holding company has a class of voting securities which is registered under section 12 of the Exchange Act, or (b) the acquiring party would be the largest holder of a class of voting shares of the bank or the holding company. The statute and underlying regulations authorize the FDIC to disapprove a proposed acquisition on certain specified grounds.

Prior approval of the Federal Reserve Board would be required for any acquisition of control of the Company or the Bank by any bank holding company under the Bank Holding Company Act. Control for purposes of the Bank Holding Company Act would be based on, among other factors, a 25% voting stock test or on the ability of the holding company otherwise to control the election of a majority of our Board of Directors. As part of such acquisition, the acquiring company (unless already so registered) would be required to register as a bank holding company under the Bank Holding Company Act.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities being offered hereby will be passed upon by Wyrick Robbins Yates & Ponton, LLP, Raleigh, North Carolina. A partner in Wyrick Robbins Yates & Ponton LLP owns 8,000 shares of the Company's voting common stock. Any underwriters will be represented by their own legal counsel.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control Over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2016 and 2015, have been so incorporated in reliance on the report of Dixon Hughes Goodman LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy these reports, proxy statements and other information at the SEC's public reference facilities at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference facilities. SEC filings are also available at the SEC's web site at <http://www.sec.gov> and on our website at www.liveoakbank.com under Investors. Information on, or that can be accessible through, our website does not constitute a part of, and is not incorporated by reference in, this prospectus.

This prospectus, which is a part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act, omits certain information set forth in the registration statement. Accordingly, for further information, you should refer to the registration statement and its exhibits on file with the SEC. Furthermore, statements contained in this prospectus concerning any document filed as an exhibit are not necessarily complete and, in each instance, we

refer you to the copy of such document filed as an exhibit to the registration statement.

Table of Contents

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference information that we file with them. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act of 1933, as amended, with the SEC with respect to the securities being offered pursuant to this prospectus. This prospectus omits certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits, for further information about us and the securities being offered pursuant to this prospectus. Statements in this prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained upon payment of the prescribed rates at the offices of the SEC listed above in **Where You Can Find More Information**. The documents we are incorporating by reference are:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the SEC on March 9, 2017;

our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2017, filed with the SEC on May 8, 2017;

Current Reports on Form 8-K filed with the SEC on February 2, 2017; February 23, 2017; February 24, 2017; May 9, 2017; and May 15, 2017 (two reports);

the description of our common stock contained in our registration statement on Form S-1 (File No. 333-205126) filed with the SEC on June 19, 2015, including any amendment or report filed for the purpose of updating such description; and

all of the filings pursuant to the Securities Exchange Act of 1934, as amended, after the date of the filing of the original registration statement and prior to the effectiveness of the registration statement.

In addition, all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed in such forms that are related to such items unless such Form 8-K expressly provides to the contrary) subsequently filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, before the date our offering is terminated or completed are deemed to be incorporated by reference into, and to be a part of, this prospectus.

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to Live Oak Bancshares, Inc., Attn: General Counsel, 1741 Tiburon Drive, Wilmington, North Carolina 28403.

You should rely only on information contained in, or incorporated by reference into, this prospectus and any prospectus supplement. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.

Table of Contents

4,500,000 Shares

Common Stock

PROSPECTUS SUPPLEMENT

Goldman Sachs & Co. LLC

Sandler O Neill + Partners, L.P.

SunTrust Robinson Humphrey, Inc.