

Live Oak Bancshares

2023 ANNUAL REPORT

DEDICATED TO THE DOERS.®

LETTER FROM THE CHAIRMAN

To Our Shareholders,

Two years ago, in this letter, we interviewed some of our folks to give you an idea of our culture and what we are trying to build. Last year we did the same with our customers. This year we contemplate both the future of our bank and the industry in general by asking and answering three questions:

- Where is our industry today and where is it going?
- What makes Live Oak different than other \$10 billion asset banks?
- Does Live Oak have a sustainable competitive advantage?

Let's start with the state of the banking business.

Over the last couple of years two significant events occurred that dramatically affected how investors assess banks. First, the fastest rate hike cycle in U.S. history. Second, "March Madness" last spring, which led to some of the largest U.S. bank failures ever.

Technology has allowed customers to shift their money quickly in a flight to quality and to take advantage of higher rates. As a result, deposit betas at traditional banks are at an all-time high. It never ceases to amaze me that our industry celebrates taking advantage of the deposit customer in an effort not to reprice their entire book of lower cost deposits. These customers must be supported by an antiquated, ridiculously expensive deposit gathering system — otherwise known as branches. In the future, I believe non-interest deposits will gradually disappear. Customers will pay a fair fee for services provided or allow non-interest bearing balances to accumulate

but require an earnings allowance to offset fees for services. As a result, net interest margins will continue to suffer. In essence, it is a tough time for traditional banks and will continue to be.

Most \$10 billion community banks are a blind pool of credit risk leveraged 10:1. Most are concentrated real estate plays in a geographic region. Once crossing the \$10 billion mark, these banks are held hostage to regulatory burdens and ancient technology from the oligopoly of antiquated core providers. The gradual acceptance of cloud native, API-first solutions has given fledgling fintechs a competitive advantage to attract traditional bank customers. At Canapi Ventures, we have seen almost limitless capital from investors flow into this segment.

How is Live Oak differentiated?

First and foremost, our people and our culture — that is our distinct advantage, enabled by technology.

Our next-generation technology allows us flexibility others are unwilling to tackle. Most banks consider a core conversion the combination of brain surgery and an open-heart transplant at the same time. We believe the work to convert is worth it and we are seeing the benefits as we create industry specific products. The stickiness of becoming the nation's preeminent small business bank, as well as the lending company we have always been, is most exciting.

Our winning hand will continue as we perfect both our full-service and self-service channels.

Our 160+ lending officers typically initiate interactions through direct calling efforts, attending over 200 trade shows, gathering leads on our digital

platform and through multiple referral sources. The barrier to entry to becoming a Small Business Administration (SBA) lender is substantial as the architecture of a loan must reflect all aspects of the SBA standard underwriting procedures. We will continue to aggressively hire experienced SBA lenders nationally as we solidify our ranking as the #1 SBA lender in America. Our Specialty Finance lending and Energy & Infrastructure groups have grown 29% over the last three years, and we see that growth continuing. These groups provide a mix of conventional and USDA-guaranteed loan options for customers. The combination of lender expertise and industry-leading self-service technology is essential to our future. Best-in-class technology and our extraordinary people give us a proprietary advantage throughout the loan closing process.

On the full-service side, if a customer has a question our teams are at the ready. For deposit customers, the call center will answer the phone in 22 seconds or less. For loan customers, our Business Analyst Group is available for same day calls and emails.

On the self-service side, the customer user interface must be clean, easy to use and intuitive. Both yield a competitive advantage.

From loans to deposits, these systems and interactions get better every day. The cost of our deposit gathering systems is 11 basis points compared to traditional banks at ~15x that. Last year, we grew business deposits 56% year-over-year and total deposits 16% year-over-year while the rest of the industry remained flat. Our operating account fully launched in 2023, and we will continue to invest in next-gen, proprietary technologies that separate us from the competition.

As we mentioned in our Q4 2023 earnings call, the SBA has made substantial changes to the

requirements for loans under \$1 million. These changes will allow us to go down market in a way never contemplated before. As the nation's #1 SBA lender, our loans have averaged around \$1.5 million over the past several years. SBA paperwork requirements create a loan with more than 100 documents. It made sense for us to focus on the larger loans. Now that many of those requirements have been reduced, we can profitably put dollars in the hands of those smaller companies seeking access to capital and ultimately the American Dream.

When we started the company 15 years ago, we made a loan and sold a loan. Our return on average assets was close to 4% and return on average equity was over 35%. Over time our servicing asset grew and our quarterly servicing asset revaluation wreaked havoc with quarterly earnings as prepayment speeds and other market factors jumped up and down. Five years ago, we shifted our model to retain more loans on book to reduce volatility and maximize long-term profitability.

In the future we plan to sell most loans under \$1 million and have the best of both worlds. We will continue to add staff to our SBA teams, as well as the Specialty Finance and Energy & Infrastructure teams, and hold most of these loans on book.

Is this a sustainable competitive advantage?

Let me close with a retrospective of our growth story.

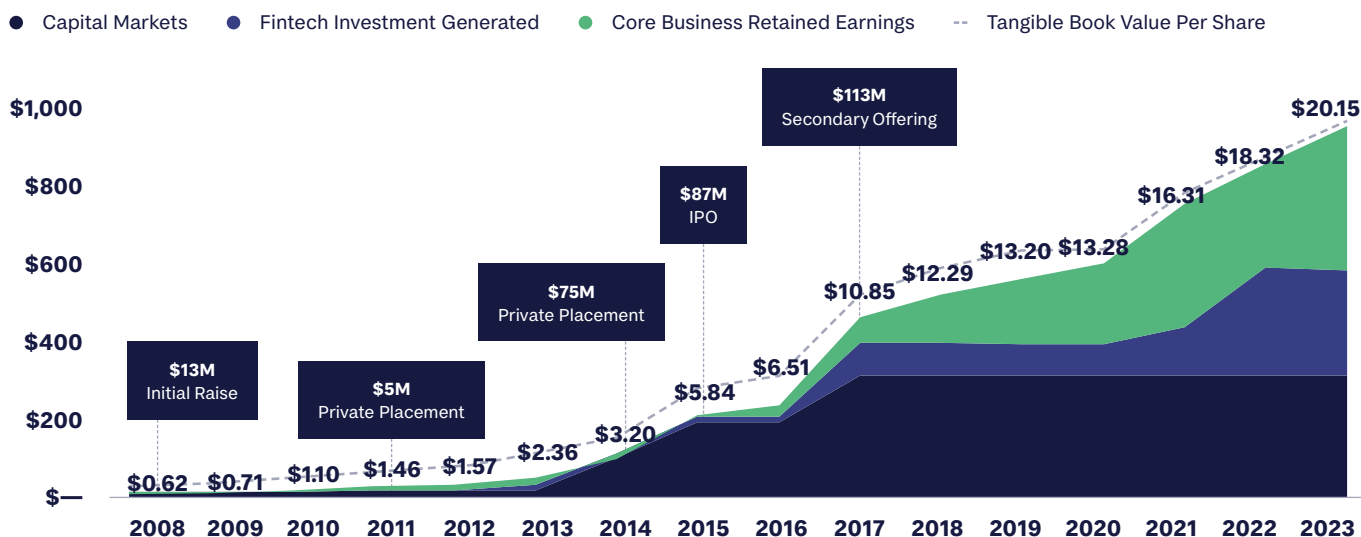
In the last 10 years, our year-over-year loan origination engine has grown total assets ~25x from \$430 million as of December 31, 2013, to \$11.3 billion as of December 31, 2023 — a cumulative annual growth rate of 39%, and that's despite having an originate and sell model until 2018.

In addition to our growth, we have continued to diversify our business model, adding 32 verticals to our three lending business units: Small Business Banking, Specialty Finance, and Energy & Infrastructure.

The bottom line is this.

We grew our capital base ~18x in 10 years ending December 31, 2023, with two-thirds of that growth coming organically through retained earnings and monetization of fintech investments. As a result, our tangible book value per share increased ~7x in that same period — quite a win for shareholders.

Equity Growth Momentum Since Inception (\$ in millions)



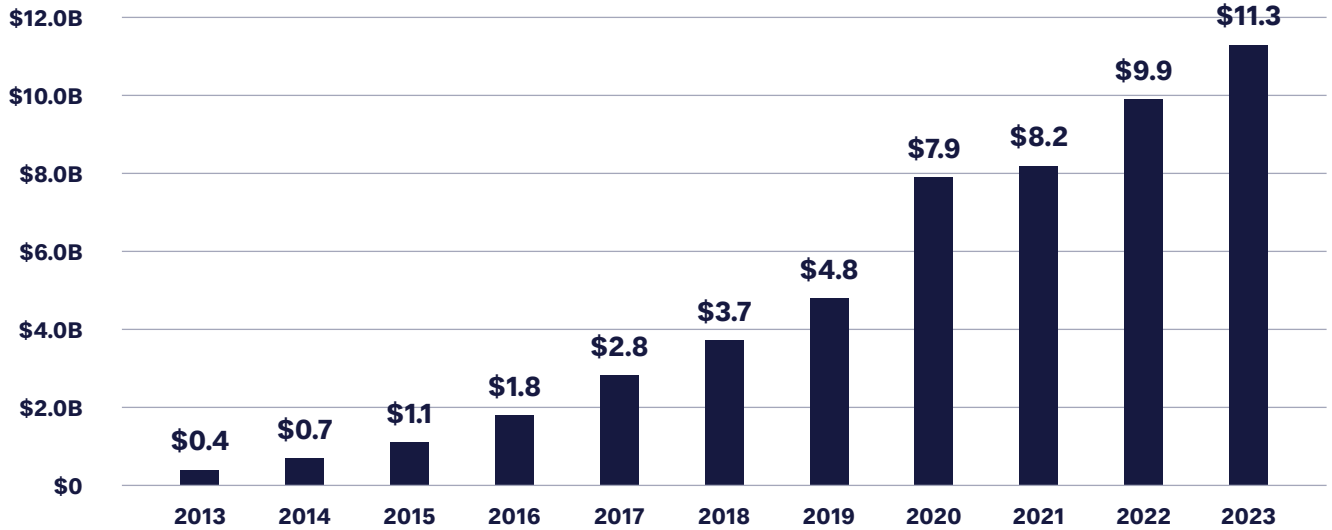
I like the hand we have been dealt. Organic growth in the banking business is difficult. Not being a serial diluter is difficult. We have accomplished both over the last 10 years.

Our plan is to continue the journey, and we are glad to have you on it with us.

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

10-YEAR GROWTH

Total Assets (\$ in billions)



Vertical Growth (2013-2023)



2013

2023

Dental
 Family Entertainment Center
 Funeral Home and Cemetery
 Investment Advisory
 Medical
 Pharmacy
 Veterinary

Accounting and Tax
 Agriculture
 Asset-Based Lending
 Auto Dealerships
 Automotive Care
 Bioenergy
 Broadband
 Community Facilities
 Dental
 Education Services
 Fitness Centers
 Franchises
 Franchise Restaurants
 Funeral Home and Cemetery
 Government Contracting
 Hardware Stores
 Healthcare
 Home Care
 HVAC and Plumbing Services
 Inclusive Small Businesses

Insurance
 Investment Advisory
 Law Firms
 Managed Service Providers
 Pharmacy
 Professional Services Firms
 Property Management
 Restoration, Remediation
 and Cleaning
 RV Parks
 SBA General Lending
 Self-Storage
 Seniors Housing
 Solar
 Specialty Healthcare
 Sponsor Finance
 Venture Banking
 Veterinary
 Water and Wastewater Programs
 Wine and Craft Beverage



2023 ADVERTISING CAMPAIGN

At Live Oak, we remain committed to providing exceptional service to our deposit and loan customers. In 2023, we launched a campaign around this idea which was created and filmed by our in-house Marketing team in downtown Wilmington, NC with a local cast and crew.

View the full 60-second advertisement by scanning the QR code, or visit liveoakbank.com/annualreport2023



BEGGING FOR YOUR BANK'S ATTENTION?

Get the personalized
service you deserve.

Business Loans | Business Checking | Business Savings



LiveOakBank®

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

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2023

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____.

Commission file number: 001-37497



LIVE OAK BANCSHARES, INC.

(Exact name of registrant as specified in its charter)

North Carolina

26-4596286

(State or other jurisdiction of incorporation or organization)

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

1741 Tiburon Drive, Wilmington, NC

28403

(Address of principal executive offices)

(Zip Code)

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

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Voting Common Stock, no par value per share	LOB	New York Stock Exchange LLC

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

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

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

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

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

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

Large Accelerated Filer

Accelerated Filer

Non-accelerated Filer

Smaller Reporting Company

Emerging growth company

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

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

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant as of June 30, 2023, was approximately \$876,352,160. Shares of common stock held by each officer and director have been excluded in that such persons may be deemed to be affiliates. There is no public market for the registrant's non-voting common stock. For purposes of this calculation, the registrant has assumed that the market value of each share of non-voting common stock is equal to a share of voting common stock.

APPLICABLE ONLY TO CORPORATE REGISTRANTS:

As of February 21, 2024, there were 44,769,239 shares of the registrant's voting common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for the 2024 Annual Meeting of Shareholders, which the registrant plans to file subsequent to the date hereof, are incorporated by reference into Part III. Portions of the registrant's annual report to shareholders for the year ended December 31, 2023, which will be posted on the registrant's website and furnished to the SEC subsequent to the date hereof, are incorporated by reference into Part II.

Live Oak Bancshares, Inc.
Annual Report on Form 10-K
December 31, 2023
TABLE OF CONTENTS

	Page
PART I	
Item 1. Business	1
Item 1A. Risk Factors	16
Item 1B. Unresolved Staff Comments	35
Item 1C. Cybersecurity	35
Item 2. Properties	38
Item 3. Legal Proceedings	38
Item 4. Mine Safety Disclosures	38
PART II	
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	39
Item 6. [Reserved]	40
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	41
Item 7A. Quantitative and Qualitative Disclosures about Market Risk	71
Item 8. Financial Statements and Supplementary Data	73
Report of Independent Registered Public Accounting Firm	74
Consolidated Balance Sheets as of December 31, 2023 and 2022	79
Consolidated Statements of Income for the Years Ended December 31, 2023, 2022 and 2021	80
Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2023, 2022 and 2021	81
Consolidated Statements of Changes in Shareholders' Equity for the Years Ended December 31, 2023, 2022 and 2021	82
Consolidated Statements of Cash Flows for the Years Ended December 31, 2023, 2022, and 2021	83
Notes to Consolidated Financial Statements	85
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	141
Item 9A. Controls and Procedures	141
Item 9B. Other Information	142
Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	142
PART III	
Item 10. Directors, Executive Officers and Corporate Governance	143
Item 11. Executive Compensation	143
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	143
Item 13. Certain Relationships and Related Transactions, and Director Independence	143
Item 14. Principal Accountant Fees and Services	143
PART IV	
Item 15. Exhibits and Financial Statement Schedules	144
Item 16. Form 10-K Summary	147
Signatures	148

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Important Note Regarding Forward-Looking Statements

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

- deterioration in the financial condition of borrowers resulting in significant increases in the Company’s provision for credit 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” or “Live Oak Bank”) as an SBA Preferred Lender;
- changes in rules, regulations or procedures for other government loan programs, including those of the United States Department of Agriculture (“USDA”);
- changes in interest rates that affect the level and composition of deposits, loan demand and the values of loan collateral, securities, and interest-sensitive assets and liabilities;
- the failure of assumptions underlying the establishment of reserves for possible credit losses;
- changes in loan underwriting, credit review or loss reserve policies associated with economic conditions, examination conclusions, or regulatory developments;
- adverse developments in the banking industry highlighted by high-profile bank failures and the potential impact of such developments on customer confidence, liquidity, and regulatory responses to these developments;
- the impacts of global health crises and pandemics, such as the Coronavirus Disease 2019 (“COVID-19”) pandemic, on trade (including supply chains and export levels), travel, employee productivity and other economic activities that may have a destabilizing and negative effect on financial markets, economic activity and customer behavior;
- a reduction in or the termination of the Company’s ability to use the technology-based platform that is critical to the success of the Company’s business model or to develop a next-generation banking platform, including a failure in or a breach of the Company’s operational or security systems or those of its third-party service providers;
- technological risks and developments, including cyber threats, attacks, or events;
- changes in financial market conditions, either internationally, nationally or locally in areas in which the Company conducts operations, including reductions in rates of business formation and growth, demand for the Company’s products and services, commercial and residential real estate development and prices, premiums paid in the secondary market for the sale of loans, and valuation of servicing rights;

- changes in accounting principles, policies, and guidelines applicable to bank holding companies and banking;
- fluctuations in markets for equity, fixed-income, commercial paper and other securities, which could affect availability, market liquidity levels, and pricing;
- the effects of competition from other commercial banks, non-bank lenders, consumer finance companies, credit unions, securities brokerage firms, insurance companies, money market and mutual funds, and other financial institutions operating in the Company's market area and elsewhere, including institutions operating regionally, nationally and internationally, together with such competitors offering banking products and services by mail, telephone and the Internet;
- the Company's ability to attract and retain key personnel;
- changes in governmental monetary and fiscal policies as well as other legislative and regulatory changes, including with respect to SBA or USDA lending programs and investment tax credits;
- a deterioration of the credit rating for U.S. long-term sovereign debt, actions that the U.S. government may take to avoid exceeding the debt ceiling, and uncertainties surrounding the debt ceiling and the federal budget;
- changes in political and economic conditions, including any prolonged U.S. government shutdown;
- the impact of heightened regulatory scrutiny of financial products and services, primarily led by the Consumer Financial Protection Bureau and various state agencies;
- the Company's ability to comply with any requirements imposed on it by regulators, and the potential negative consequences that may result;
- operational, compliance and other factors, including conditions in local areas in which the Company conducts business such as inclement weather or a reduction in the availability of services or products for which loan proceeds will be used, that could prevent or delay closing and funding loans before they can be sold in the secondary market;
- the effect of any mergers, acquisitions or other transactions, to which the Company or the Bank may from time to time be a party, including management's ability to successfully integrate any businesses acquired;
- adverse results, including related fees and expenses, from pending or future lawsuits, government investigations or private actions;
- other risk factors listed from time to time in reports that the Company files with the SEC, including those described under "Risk Factors" in this Report; and
- the Company's success at managing the risks involved in the foregoing.

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

PART I

Item 1. BUSINESS

General

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

The Company

The Company predominantly originates loans partially guaranteed by the U.S. Small Business Administration (the “SBA”) and to a lesser extent by the United States Department of Agriculture (“USDA”) Rural Energy for America Program (“REAP”), Water and Environmental Program (“WEP”), Business & Industry (“B&I”) and Community Facilities loan programs. These loans are to small businesses and professionals with what the Company believes are lower risk characteristics. Industries, or “verticals,” on which the Company focuses its lending efforts are carefully selected. The Company also lends more broadly to select borrowers outside of those verticals.

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

For additional information on the Company’s business, financial performance and results of operations, see “Overview” and “Executive Summary” in Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations of this Report. For a discussion of the Company’s reportable segments see Note 15. Segments in Part II, Item 8. Financial Statements and Supplementary Data of this report.

The Company’s voting common stock trades on the New York Stock Exchange LLC (the “NYSE”) under the symbol “LOB.” As of January 31, 2024, there were 210 holders of record of the Company’s voting common stock. The Company’s principal executive office is located at 1741 Tiburon Drive, Wilmington, North Carolina 28403, telephone number (910) 790-5867. The Company maintains a website at www.liveoakbank.com. Documents available on the website include: (i) the Company’s Code of Ethics and Conflict of Interest Policy; (ii) charters for the Audit, Risk, Compensation, and Nominating and Corporate Governance Committees of the Board of Directors, and (iii) the Company’s Corporate Governance Guidelines. These documents also are available in print to any shareholder who requests a copy.

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

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

Employees and Human Capital Resource Management

The Company operates on the fundamental philosophy that people are our most valuable asset, because every person who works for us has the potential to impact our success as well as the success of our customers. The Company's employees are the source of our deep industry and product expertise and the embodiment of our culture. It is this industry vertical expertise, product knowledge and our culture that differentiate the Company and allow us to provide an unprecedented customer experience and live our mission to fuel the growth of small business across the country and be America's Small Business Bank.

As a financial institution, our ability to attract, develop and retain highly qualified employees is critical to our success. The Company's core values of innovation, dedication, ownership, respect and teamwork are pillars of our culture and represent the expectations we have of each and every one of our employees. We believe our people provide significant value to our Company and its shareholders.

Demographics

As of December 31, 2023, the Company had 943 full-time employees, 18 part-time employees and 37 independent contractors. None of the Company's employees are covered by a collective bargaining agreement, and management considers relations with employees to be good.

Diversity and Inclusion

The Company strives to foster a welcoming, supportive, and equitable environment for diverse employees. To accomplish this, the Company focuses on engagement, awareness, training, accountability, education, and communication. During 2023, the Company supported programming through its six Employee Resource Groups ("ERG") and saw the number of interest groups grow from nine to eleven. These employee-led networks provide community and connection through shared interests and experiences. In addition, hiring managers across the Company participated in interview and bias trainings. The Company's diversity, equity and inclusion initiatives are both internally and externally focused. The Company and ERG leadership, membership, and allies remain committed to celebrating and supporting local, diversity-owned small business through on-campus events that showcase diverse entrepreneurs in the surrounding communities. Its commitment to providing and enhancing a support infrastructure for people with underrepresented backgrounds remains a strategic initiative. The Company intends to continue to identify, monitor and measure meaningful diversity and inclusion goals, to foster a welcoming environment through education, communication and recruiting efforts, and to provide support so that diverse employees have the resources and relationships they need to be successful and thrive.

Compensation

We believe that creating an unprecedented banking experience for small business owners nationwide through service and technology will build long-term shareholder value. To accomplish this, we endeavor to identify, recruit, retain and incentivize exceptional employees. Our compensation program is based on the premise that employees should receive fair and equitable treatment based on their individual contributions to the Company's profitability and success. We use a combination of fixed and incentive pay, including base salary, cash bonus, and equity compensation. We also offer a 401(k) savings plan to qualifying employees.

Our compensation program is intended to motivate employees to successfully execute our mission. The Company believes that the most effective incentive compensation programs strive to achieve the following objectives:

- align compensation with responsibilities and performance;
- align employees' interests with those of our shareholders;
- motivate performance toward the achievement of business objectives;
- clearly communicate compensation policies and structures to employees;
- motivate behaviors to increase long-term profitability while maintaining the Company's primary commitment to safety and soundness; and
- attract and retain talent and build leadership succession within business units.

Benefits and Wellness

As the success of our business is fundamentally connected to the well-being of our people, we offer benefits that support their physical, financial, and emotional well-being. We provide our employees with access to flexible and convenient insurance programs intended to meet their needs and the needs of their families. In addition to robust medical, dental and vision coverage, we offer eligible employees dependent care flexible spending accounts, paid time off, employee assistance programs, short-term and long-term disability insurance, and term life insurance.

Our focus on employee wellness extends beyond just insurance benefits. The Company provides access to an intranet site focused on physical, mental, emotional, and financial wellness, and at its Wilmington headquarters facility, provides an on-site health clinic for employees, on-site physical therapy appointments, and an on-site wellness facility staffed with certified physical trainers and regularly scheduled live and virtual wellness classes. The Company's main campus in Wilmington also offers two on-site dining locations that provide healthy options and which can cater to specific dietary needs.

Flexibility is an important contributor to employee engagement and job satisfaction. While 2023 brought a return-to-campus initiative for our Wilmington headquarters, our 100% cloud-based operations allow our people to transition nimbly between remote working and in-person as personal circumstances require with no material effect on our operations or customer experience.

Commitment to Values and Ethics

Along with our core values, we have adopted a Code of Ethics and Conflict of Interest Policy, which sets forth expectations and guidance for employees to make appropriate decisions. Our Code of Ethics and Conflict of Interest Policy covers topics such as conflicts of interest, compliance with laws, appropriate use of company assets, protecting confidential information, and reporting of violations. Our Code of Ethics and Conflict of Interest Policy reflects our commitment to operating in a fair, honest, responsible, and ethical manner and also provides direction for reporting complaints in the event of alleged violations of our policies.

Professional Development and Training

We believe training and professional development for our employees has a positive impact on employee retention, customer experience and, ultimately, shareholder value. The Company has certain training programs and resources in place to meet the needs of various roles, skill sets and departments across the Company, including:

- Internally and externally led manager training and professional development;
- Internally led "lunch and learn" meetings for role-specific skills;
- Web-based learning modules and training for personal and professional development, skill-based learning, leadership development and management functions;
- Formal cross-department teams tasked with technology, initiative roll-outs and change management; and
- Tuition reimbursement for job-specific certifications and required continuing education.

Communication and Engagement

We believe that the Company's success and the ultimate creation of long-term value for shareholders begins with employees understanding how their work contributes to the Company's overall strategy. To this end, we communicate with our workforce through a variety of channels and encourage open and direct communication, including:

- A biennial company-wide "all hands" meeting;
- Regularly scheduled town hall-style meetings that are led by our key executives and held quarterly, or more often as needed, with a focus on our people, culture, strategy, and performance;
- Periodic posts from Company leadership via our internal enterprise social media network and intranet; and
- An open-door environment that encourages communication, collaboration and the free-flow of information and ideas.

Collaboration, both within and between business units, is a hallmark of our approach to service delivery and value creation for our customers and stakeholders.

Competition

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

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

Subsidiaries

In addition to the Bank, Bancshares directly or indirectly held the following wholly owned material subsidiaries as of December 31, 2023:

- Canapi Advisors, LLC (“Canapi Advisors”), formed in September 2018 for the purpose of providing investment advisory services to a series of funds focused on investing venture capital in new and emerging financial technology companies;
- Live Oak Ventures, Inc., formed in August 2016 for the purpose of investing in businesses that align with the Company's strategic initiative to be a leader in financial technology;
- Live Oak Grove, LLC, formed in February 2015 for the purpose of providing Company employees and business visitors with on-site dining at the Company's Wilmington, North Carolina headquarters; and
- Government Loan Solutions, Inc. (“GLS”), a management and technology consulting firm that specializes in the settlement, accounting, and securitization processes for government guaranteed loans, including loans originated under the SBA 7(a) loan program and USDA-guaranteed loans.

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

In 2018, the Bank formed Live Oak Private Wealth, LLC (“LOPW”), a registered investment advisor that provides high-net-worth individuals and families with strategic wealth and investment management services.

In 2019, Live Oak Clean Energy Financing LLC (“LOCEF”) became a subsidiary of the Bank. LOCEF was formed in November 2016 as a subsidiary of Bancshares for the purpose of providing financing to entities for renewable energy applications.

Tiburon Land Holdings, LLC was formed in the third quarter of 2022 as a subsidiary of the Bank to hold land adjacent to the Bank's headquarters consisting of wetlands and other protected property for the use and enjoyment of the Bank's employees and customers.

Operating Segments

The Company's operations are managed along two reportable operating segments consisting of Banking and Fintech. See the sections captioned “Results of Segment Operations” in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Note 15. Segments in the notes to consolidated financial statements included in Item 8. Financial Statements and Supplementary Data elsewhere in this report.

SUPERVISION AND REGULATION

General

The Company is subject to extensive regulation in connection with its respective activities and operations. The framework under which the Company is supervised and examined is complex. This framework includes federal and state laws, regulations, policy statements, guidance, and other interpretative materials that define the obligations and requirements for financial institutions.

Regulations of banks and their holding companies is subject to continual revision, through legislative changes, regulatory revisions, and the evolving supervisory objectives of federal and state banking agency examiners and supervisory staff. It is not possible to predict the content or timing of changes to the laws and regulations that may impact the business of the Company. Any changes to the regulatory framework applicable to the Company could have a material adverse impact on its operations.

In addition to the regulation and supervision summarized below, Bancshares is a reporting company under the Securities Exchange Act of 1934 (the “Exchange Act”) and is required to file reports with the SEC and otherwise comply with federal securities laws. Bancshares’ voting common stock is listed on the NYSE. Consequently, in addition to the rules promulgated by the SEC, Bancshares must also comply with the listing standards applicable to NYSE-listed companies. The NYSE listing standards applicable to Bancshares include corporate governance standards related to director independence; requirements for audit, nominating and compensation committee charters, membership qualifications and procedures; incentive compensation recovery policy requirements; and shareholder approval of equity compensation arrangements, among others.

The following discussion is not intended to be a complete description of all the activities regulated by U.S. banking laws and regulations or of the impact of such laws and regulations on the Company. Rather, it is intended to briefly summarize the legal and regulatory framework in which the Company operates and describes certain legal requirements that impact its businesses and operations. The information set forth below is subject to change.

Federal Bank Holding Company Regulation and Structure

As a registered bank holding company, Bancshares is subject to regulation under the Bank Holding Company Act of 1956, as amended (“BHCA”), and to the supervision, examination and reporting requirements of the Board of Governors of the Federal Reserve System (the “Federal Reserve”). The Bank is a North Carolina-chartered commercial bank and is subject to regulation, supervision and examination by the Federal Deposit Insurance Corporation (“FDIC”) and the North Carolina Commissioner of Banks (“NCCOB”).

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

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

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

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

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

Bancshares’ voting common stock is registered under Section 12 of the Exchange Act. The regulations provide a procedure for challenging rebuttable presumptions of control.

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

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

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

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

Bank Merger Act

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

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

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

State Law

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

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

Bancshares is also required to maintain registration as a bank holding company with the NCCOB. Subject to certain exceptions, Bancshares may not acquire control over another bank or bank holding company or consummate a merger or other combination transaction with another company without the prior approval of the NCCOB. The NCCOB also has authority to assert civil money penalties against a holding company if the NCCOB determines such holding company to be in violation of any banking laws and the holding company fails to comply with an NCCOB order to cease and desist from such violations of law.

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

Payment of Dividends and Other Restrictions

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

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

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

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

Under the Inflation Reduction Act of 2022, there is a 1% excise tax on the fair market value of stock repurchased after December 31, 2022, by publicly traded U.S. corporations. With certain exceptions, the value of stock repurchased is determined net of stock issued in the year, including shares issued pursuant to compensatory arrangements.

Capital Adequacy

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

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

Assets and off-balance-sheet items are assigned to broad risk categories, each with appropriate weights. The resulting capital ratios represent capital as a percentage of total risk-weighted assets and off-balance-sheet items. Under applicable capital standards, the minimum risk-based capital ratios are a common equity Tier 1 capital to risk-weighted assets ratio of 4.5%, a Tier 1 capital to risk-weighted assets ratio of 6%, and a total capital to risk-weighted assets ratio of 8%. In addition, to avoid restrictions on capital distributions and discretionary bonus payments, Bancshares and the Bank are required to meet a capital conservation buffer of common equity Tier 1 capital in addition to the minimum common equity Tier 1 capital ratio. The capital conservation buffer is set at a ratio of 2.5% common equity Tier 1 capital to risk-weighted assets, which sits "on top" of the 4.5% minimum common equity Tier 1 to risk-weighted assets ratio. Common equity Tier 1 capital is predominantly composed of retained earnings and common stock instruments (that meet strict delineated criteria), net of treasury stock, and after making necessary capital deductions and adjustments. Tier 1 capital is composed of common equity Tier 1 capital plus Additional Tier 1 capital, which consists of noncumulative perpetual preferred stock and similar instruments meeting specified eligibility criteria. Total capital is composed of Tier 1 capital plus Tier 2 capital, which consists of subordinated debt with a minimum original maturity of at least five years and a limited amount of loan loss reserves.

At December 31, 2023, the Company's risk-based capital ratios, as calculated under applicable capital standards were 11.73% common equity Tier 1 capital to risk weighted assets, 11.73% Tier 1 capital to risk weighted assets, and 12.98% total capital to risk weighted assets.

In addition, the Federal Reserve has established minimum leverage ratio guidelines for bank holding companies. These guidelines provide for a minimum ratio of Tier 1 capital to average total on-balance sheet assets, less goodwill and certain other intangible assets, of 4% for bank holding companies. Bancshares' ratio at December 31, 2023 was 8.58% compared to 9.26% at December 31, 2022. The guidelines also provide that bank holding companies experiencing internal growth or making acquisitions will be expected to maintain strong capital positions substantially above the minimum supervisory levels without significant reliance on intangible assets. Furthermore, the Federal Reserve has indicated that it will consider a "tangible Tier 1 Capital leverage ratio" and other indications of capital strength in evaluating proposals for expansion or new activities.

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

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

An institution may be downgraded to, or deemed to be in, a capital category that is lower than is indicated by its capital ratios if it is determined to be in an unsafe or unsound condition or if it receives an unsatisfactory examination rating with respect to certain matters. As of December 31, 2023, Live Oak Bank had capital levels that qualify as “well capitalized” under the applicable regulations.

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

“Significantly undercapitalized” insured banks may be subject to a number of requirements and restrictions, including orders to sell sufficient voting stock to become “adequately capitalized,” requirements to reduce total assets, cease receipt of deposits from correspondent banks, or dismiss directors or officers, and restrictions on interest rates paid on deposits, compensation of executive officers, and capital distributions by the parent holding company. “Critically undercapitalized” institutions are subject to the appointment of a receiver or conservator, may not make any payment of principal or interest on certain subordinated debt, extend credit for a highly leveraged transaction, or enter into any material transaction outside the ordinary course of business.

A bank that is not “well capitalized” is also subject to certain limitations relating to brokered deposits. If a bank is not well-capitalized, it cannot accept brokered deposits without prior FDIC approval. Even if approved, rate restrictions will govern the rate the institution may pay on the brokered deposits. At December 31, 2023, Live Oak Bank was “well capitalized” and therefore not subject to any limitations with respect to its brokered deposits.

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

The Federal Reserve, FDIC and Office of the Comptroller of the Currency approved final rules that established an integrated regulatory capital framework that implements the Basel III regulatory capital requirements and certain provisions of the Dodd-Frank Act. Compliance by Bancshares and the Bank with these capital requirements affects their respective operations by increasing the amount of capital required to conduct operations.

The FDIC has set the minimum required Community Bank Leverage Ratio (“CBLR”) at 9 percent. A qualifying community banking organization may elect to use the CBLR framework if its CBLR is greater than 9 percent. A qualifying community banking organization that has chosen the proposed framework is not required to calculate the existing risk-based and leverage capital requirements. A bank is also considered to have met the capital ratio requirements to be well capitalized for the agencies’ prompt corrective action rules provided it has a CBLR greater than 9 percent. The Company has not elected to implement the CBLR framework at this time.

Acquisitions

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

Restrictions on Affiliate Transactions

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

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

FDIC Insurance Assessments

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

The FDIC imposes a risk-based deposit insurance premium assessment on member institutions in order to maintain the DIF. Assessments are based on the average consolidated total assets less tangible equity of a financial institution. The assessment rates for an insured depository institution vary according to the level of risk incurred in its activities. The assessment rate schedule can change from time to time, at the discretion of the FDIC, subject to certain limits.

Live Oak Bank’s insurance assessments during 2023 and 2022 were \$16.7 million and \$9.8 million, respectively. In conjunction with the Amended Restoration Plan, the FDIC Board increased deposit insurance assessment rates by two basis points for all insured depository institutions, effective in 2023. The FDIC may terminate insurance of deposits upon a finding that an institution has engaged in unsafe and unsound practices, is in an unsafe or unsound condition to continue operations, or has violated any applicable law, regulation, rule, order or condition imposed by the FDIC.

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

Privacy and Data Security

We are subject to complex and evolving laws and regulations governing the privacy and security of personal information associated with consumers, prospective, current and former customers, employees and contractors, and other individuals. For example, financial institutions are required by the Gramm-Leach-Bliley Financial Services Modernization Act of 1999 (the “GLBA”) to disclose their policies for collecting and protecting consumer information. The Bank has established a privacy policy that it believes promotes compliance with these federal requirements. The GLBA also imposes restrictions on when and to which entities financial institutions may disclose personal information and how personal information can be used, as well as data security requirements.

In addition, we are subject to federal requirements related to unauthorized access to and/or acquisition of personal information, cybersecurity incidents, and similar matters. When unauthorized access to and/or acquisition of personal information occurs, the Interagency Guidance on Response Programs for Unauthorized Access to Customer Information and Customer Notice may require us to notify affected individuals and regulator

The U.S. federal bank regulatory agencies have established computer-security incident notification requirements for banking organizations and bank service providers. A bank holding company, such as Bancshares, and an FDIC-supervised depository institution, such as the Bank, are required to notify the Federal Reserve or FDIC, respectively, as soon as possible and no later than 36 hours after a determination that a computer-security incident that rises to the level of a notification incident has occurred. A computer-security incident is an occurrence that results in actual harm to the confidentiality, integrity, or availability of an information system or the information that the system processes, stores, or transmits. A notification incident is defined as a computer-security incident that has materially disrupted or degraded, or is reasonably likely to materially disrupt or degrade, a banking organization’s: (i) ability to carry out banking operations, activities, or processes, or deliver banking products and services to a material portion of its customer base, in the ordinary course of business; (ii) business line(s), including associated operations, services, functions, and support, that upon failure would result in a material loss of revenue, profit, or franchise value; or (iii) operations, including associated services, functions and support, as applicable, the failure or discontinuance of which would pose a threat to the financial stability of the United States. For example, a notification incident may include a major computer-system failure; a cyber-related interruption, such as a distributed denial of service or ransomware attack; or another type of significant operational interruption.

SEC rules also require disclosure of material cybersecurity incidents, as well as cybersecurity risk management, strategy, and governance. See Item 1C. Cybersecurity.

In addition to federal privacy laws and regulations, numerous state laws and regulations govern the collection, retention, use, and disclosure of personal information, and state legislatures have been actively considering and enacting new laws addressing data security, data breach notification, and privacy. For example, some states have enacted financial privacy laws and regulations that are similar to the GLBA’s privacy requirements. All fifty states have enacted data breach notification laws, and many states have enacted or are considering comprehensive privacy laws. To the extent applicable, many of these laws and regulations impose additional and/or different requirements than federal law, may present implementation challenges, could be an enforcement priority for the state regulators, and could generate increased lawsuits by consumers and other individuals.

The application, interpretation and enforcement of these laws and regulations are often uncertain, particularly in light of new and rapidly evolving data-driven technologies and significant increases in computing power. These laws and regulations are constantly evolving, remain a focus of regulators, and will continue to have a significant impact on our businesses and operations. Violations of these laws and regulations can give rise to enforcement actions by governmental agencies and to private lawsuits for damages and other forms of relief.

Federal Home Loan Bank System

The Federal Home Loan Bank (the “FHLB”) System consists of 12 district FHLBs subject to supervision and regulation by the Federal Housing Finance Agency (the “FHFA”). The FHLBs provide a central credit facility primarily for member institutions. As a member of the FHLB of Atlanta, the Bank is required to acquire and hold shares of capital stock in the FHLB of Atlanta. The Bank was in compliance with this requirement with investment in FHLB of Atlanta stock of \$6.8 million at December 31, 2023. The FHLB of Atlanta serves as a reserve or central bank for its member institutions within its assigned district. It is funded primarily from proceeds derived from the sale of consolidated obligations of the FHLB System. It offers advances to members in accordance with policies and procedures established by the FHFA and the Board of Directors of the FHLB of Atlanta. Long-term advances may only be made for the purpose of providing funds for residential housing finance, small businesses, small farms and small agribusinesses.

Community Reinvestment Act

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

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

The Community Reinvestment Act agreements with private parties must be disclosed and annual Community Reinvestment Act reports relating to such agreements must be made available to a bank’s primary federal regulator. A bank holding company will not be permitted to become a financial holding company and no new activities authorized under the Gramm-Leach-Bliley Act may be commenced by a holding company or by a bank financial subsidiary if any of its bank subsidiaries received less than a satisfactory Community Reinvestment Act rating in its latest Community Reinvestment Act examination. The Bank received an “Outstanding” rating in its last Community Reinvestment Act examination, which was conducted as of June 1, 2022.

The Volcker Rule

Under provisions of the Dodd-Frank Act referred to as the “Volcker Rule,” certain limitations are placed on the ability of insured depository institutions and their affiliates to engage in sponsoring, investing in and transacting with certain investment funds, including hedge funds and private equity funds. The Volcker Rule also places restrictions on proprietary trading, which could impact certain hedging activities.

USA PATRIOT Act

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

Sarbanes-Oxley Act of 2002

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

Fiscal and Monetary Policy

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

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

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

Real Estate Lending Evaluations

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

Commercial Real Estate Concentrations

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

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

As of December 31, 2023, the Bank’s C&D concentration as a percentage of bank capital totaled 61.5% and the Bank’s CRE concentration, excluding owner-occupied loans, as a percentage of capital totaled 164.0%.

Limitations on Incentive Compensation

The Federal Reserve reviews incentive compensation arrangements of bank holding companies such as Bancshares as part of its regular, risk-focused supervisory process.

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

Pursuant to SEC rules, the national securities exchanges and associations, including the NYSE, have implemented listing standards that require listed companies to adopt policies mandating the recovery or "clawback" of excess incentive-based compensation earned by a current or former executive officer during the three fiscal years preceding the date the listed company is required to prepare an accounting restatement, including to correct an error that would result in a material restatement if the error were corrected in the current period or left uncorrected in the current period. The Company has adopted a clawback policy, a copy of which is included as an exhibit to this Report.

Registered Investment Adviser Regulation

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

Economic Environment

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

Dodd-Frank Act

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

The Dodd-Frank Act and its implementing regulations impose various additional requirements on bank holding companies and banks with \$10 billion or more in total consolidated assets. As of December 31, 2023, the Company and the Bank each had total assets of \$11.27 billion and \$11.21 billion, respectively. See Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations - Regulatory Impact of Asset Growth.

Federal and State Taxation

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

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

Among other things, the Tax Act (i) established a new, flat corporate federal statutory income tax rate of 21%, (ii) eliminates the corporate alternative minimum tax and allowed the use of any such carryforwards to offset regular tax liability for any taxable year, (iii) limited the deduction for net interest expense incurred by U.S. corporations, (iv) allowed businesses to immediately expense, for tax purposes, the cost of new investments in certain qualified depreciable assets, (v) eliminated or reduced certain deductions related to meals and entertainment expenses, (vi) modified the limitation on excessive employee remuneration to eliminate the exception for performance-based compensation and clarified the definition of a covered employee and (vii) limited the deductibility of deposit insurance premiums. The Tax Act also significantly changed U.S. tax law related to foreign operations, however, such changes do not currently impact the Company. Management continues to explore investments which generate investment tax credits and as a result there can be no assurance as to the actual effective rate because it will be dependent upon the nature and amount of future income and expenses as well as actual investments generating investment tax credits and transactions with discrete tax effects.

The Coronavirus Aid, Relief, and Economic Security Act

In response to the COVID-19 pandemic, the Coronavirus Aid, Relief, and Economic Security Act (the “CARES Act”) was signed into law in March 2020, to provide national emergency economic relief measures. Many of the CARES Act’s programs were dependent upon the direct involvement of U.S. financial institutions, such as the Company and the Bank, and were implemented through rules and guidance adopted by federal departments and agencies, including the U.S. Department of Treasury, the Federal Reserve and other federal banking agencies, including those with direct supervisory jurisdiction over the Company and the Bank.

Paycheck Protection Program. The CARES Act amended the SBA’s loan program, in which the Bank participates, to create a guaranteed, unsecured loan program, the Paycheck Protection Program (“PPP”), to fund operational costs of eligible businesses, organizations and self-employed persons during the COVID-19 pandemic. As a participating lender in the PPP, the Bank continues to monitor legislative, regulatory, and supervisory developments related thereto.

Troubled Debt Restructuring and Loan Modifications for Affected Borrowers. The CARES Act, as amended, permits banks to suspend requirements under U.S. generally accepted accounting principles (“GAAP”) for loan modifications to borrowers affected by COVID-19 that would otherwise be characterized as troubled debt restructurings and suspend any determination related thereto if certain conditions are met. In order to be eligible for this treatment, the applicable loan must have been no more than 30 days past due as of December 31, 2019 and the loan modification must be made between March 1, 2020 and the earlier of (i) 60 days after the date of termination of the national emergency related to COVID-19 declared by the president of the United States, or (ii) January 11, 2022. The federal banking agencies also issued guidance to encourage banks to make loan modifications for borrowers affected by COVID-19 and to assure banks that they will not be criticized by examiners for doing so.

Evolving Legislation and Regulatory Action

New laws or regulations or changes to existing laws and regulations, including changes in interpretation or enforcement, could materially adversely affect the Company’s financial condition or results of operations.

Item 1A. RISK FACTORS

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

Summary of Risk Factors

The following is a summary of the most significant risks and uncertainties that we believe could adversely affect our business, financial condition or results of operations. In addition to the following summary, you should consider the other information set forth in this “Risk Factors” section and the other information contained in this Report before investing in our securities.

Risks Related to Our Business

- Increased delinquencies and credit losses could have a material adverse effect on our business, financial condition or results of operations.
- Changes to the SBA or other government-guaranteed lending programs by the federal government, or the loss of our status as an SBA Preferred Lender, could have a material adverse effect on our business.
- A prolonged U.S. government shutdown or default by the U.S. on government obligations would harm our results of operations.
- Pandemics, natural disasters, global climate change, acts of terrorism and global conflicts may have a negative impact on our business operations.
- We face risks, including credit risk and litigation risk, in connection with our participation in government programs enacted in response to the COVID-19 pandemic.
- Changes in our ability to use, or the terms of our use of, intellectual property owned by other third parties could have a material adverse effect on our business.

- We must effectively manage risks in connection with our information systems and those of our third-party service providers, which may experience disruption, failure, or security breaches, including those caused by cyber-attacks.
- The valuation of our investment securities, loans, and servicing rights is subject to change based on market conditions and various factors that are beyond our control.
- We must maintain an appropriate allowance for credit losses.
- Errors in the assumptions used to compute gains on sale of loans could result in material revenue misstatements.
- We must effectively manage our liquidity risk.
- We must effectively manage our interest rate risks.
- Increases in the amount of other real estate owned could result in additional losses, costs and expenses.
- We are subject to environmental liability risk associated with our lending activities.
- Real property appraisals may not accurately reflect the net value of the collateral that we can realize.
- We must effectively manage our counterparty risk.
- Our expansion strategy, including new lines of business, new products, acquisitions, and investments, exposes us to risks.
- Our investments in tax-advantaged projects may not generate returns as anticipated and may have an adverse effect on our financial results.
- Our investments in other companies may be illiquid and may subject us to material financial, reputational and strategic risks.
- We are less able to diversify our lending risks than larger financial institutions.
- Our directors and executive officers own a significant amount of our outstanding common stock, which could limit other shareholders' ability to influence corporate matters and may hinder a third party from acquiring control of the Company.

Risks Related to Our Regulatory Environment

- We are subject to extensive government regulation and supervision.
- We must maintain adequate regulatory capital to support our business.
- We are subject to heightened regulatory requirements because our total assets exceed \$10 billion.
- Negative developments affecting the banking industry may result in additional regulations that could increase our expenses and affect our operations.
- We may incur increased costs to comply with privacy and data security laws.

Risks Related to Our Common Stock

- The trading volume in our common stock is less than that of larger financial institutions.
- There can be no assurance that we will continue to pay cash dividends.

- Federal laws and regulations impose restrictions on the ownership of our common stock.
- Anti-takeover provisions in our governing documents could adversely affect our shareholders.
- An investment in our common stock is not an insured deposit.

General Risk Factors

- We compete with larger financial institutions and other financial service providers.
- We must attract, retain, and develop key personnel.
- Our risk management framework may not effectively mitigate risks or losses to us.
- Hurricanes or other adverse weather events could disrupt our operations.
- Our failure to maintain an effective system of internal control over financial reporting could harm our business.
- Damage to our business reputation could adversely impact our business and results of operations.

Risks Related to Our Business

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

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

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

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

We anticipate that gains on the sale of loans will comprise a meaningful component of our revenue in 2024. We sell the guaranteed portion of some of our SBA 7(a) loans in the secondary market. These sales have resulted in premium income for us at the time of sale and created a stream of future servicing income. We may not be able to continue originating these loans or selling them in the secondary market. Furthermore, even if we are able to continue originating and selling SBA 7(a) loans in the secondary market, we might not continue to realize premiums upon the sale of the guaranteed portion of these loans. When we sell the guaranteed portion of our SBA 7(a) loans, we incur credit risk on the non-guaranteed portion of the loans, and if a customer defaults on a loan, we recognize a loss and/or recovery related to the non-guaranteed portion. However, if the SBA establishes that a loss on an SBA guaranteed loan is attributable to significant technical deficiencies in the manner in which the loan was originated, funded or serviced by us, the SBA may seek recovery of the principal loss related to the deficiency from us, which could materially adversely affect our business, results of operations and financial condition.

In addition, we make loans through various programs of the United States Department of Agriculture (“USDA”). A typical SBA 7(a) loan carries a 75% guarantee while USDA guarantees range from 60% to 80% depending on loan size and type. We expect to continue to sell a large proportion of the USDA loans that we originate in the secondary market as they become eligible for sale. The origination and sale of these loans are subject to similar risks associated with the origination and sale of SBA 7(a) loans as described above. The laws, regulations and standard operating procedures that are applicable to SBA and USDA loan products may change at any time. Because government regulation greatly affects the business and financial results of our organization, changes in the laws, regulations and procedures applicable to SBA and USDA loans could adversely affect our ability to operate profitably.

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

Our results of operations, including revenue, non-interest income, expenses and net interest income, would be adversely affected in the event of widespread financial and business disruption on account of a default by the United States on U.S. government obligations or a prolonged failure to maintain significant U.S. government operations, particularly those pertaining to the SBA, the USDA or the FDIC. Any such failure to maintain such U.S. government operations would impede our ability to originate SBA loans and our ability to sell such loans in the secondary market, which would materially adversely affect our business, results of operations and financial condition.

Pandemics, natural disasters, global climate change, acts of terrorism and global conflicts may have a negative impact on our business and operations.

Pandemics, natural disasters, global climate change, acts of terrorism, global conflicts or other similar events have in the past, and may in the future have, a negative impact on our business and operations. These events impact us negatively to the extent that they result in reduced capital markets activity, lower asset price levels, or disruptions in general economic activity in the United States or abroad, or in financial market settlement functions. In addition, these or similar events may impact economic growth negatively, which could have an adverse effect on our business and operations and may have other adverse effects on us in ways that we are unable to predict.

Our business operations could be disrupted if significant portions of our workforce were unable to work effectively, including because of illness, quarantines, government actions, or other restrictions in connection with a pandemic or similar event. Further, work-from-home and other modified business practices may introduce additional operational risks, including cybersecurity and execution risks, which may result in inefficiencies or delays, and may affect our ability to, or the manner in which we, conduct our business activities. Disruptions to our customers could result in increased risk of delinquencies, defaults, foreclosures and losses on our loans.

We face risks in connection with our participation in government programs in response to the COVID-19 pandemic.

Federal, state and local governmental authorities enacted legislation, regulations, and protocols in response to the COVID-19 pandemic. Our participation in and execution of any such programs may cause operational, compliance, reputational, and credit risks, which could result in litigation, governmental action or other forms of loss.

The CARES Act temporarily added a new program titled the Paycheck Protection Program (the “PPP”) to the SBA’s 7(a) loan program. We were an active participant in the program originating a substantial number and principal amount of PPP loans.

In addition, the CARES Act provided regulatory relief on deferrals offered to certain borrowers and provided six months of payment relief through the first quarter of 2021 from the SBA for certain loans guaranteed by that agency. We face the risk that payment deferrals and those subsidy payments made by the SBA for borrowers under its programs may skew actual indications of ability to repay.

Banks participating in the PPP have been subject to litigation regarding the process and procedures that such banks used in processing applications for the PPP and regarding claims for fees to be paid to purported agents and other third parties, and we are exposed to the risk of litigation regarding the PPP. If any such litigation is not resolved in a manner favorable to us, it may result in significant financial liability or adversely affect our reputation. In addition, litigation can be costly, regardless of outcome. We also face credit risk on PPP loans if a determination is made by the SBA that there is a deficiency in the manner in which the loan was originated, funded, or serviced by the Bank. In the event of a loss resulting from a default on a PPP loan and a determination by the SBA that there was a deficiency in the manner in which the PPP loan was originated, funded, or serviced by the Bank, the SBA may deny its liability under the guaranty, reduce the amount of the guaranty, or, if it has already paid under the guaranty, seek recovery of any loss related to the deficiency from the Bank.

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

The technology-based lending platform that is pivotal to our success is dependent on the use of the nCino Bank Operating System and Salesforce.com, Inc.'s Force.com cloud computing infrastructure platform. We rely on a non-exclusive license to use nCino's platform. Because our license is non-exclusive, the nCino Bank Operating System is available to other lenders and nothing would prevent our competitors from developing, licensing or using similar technology. Our license currently expires on November 14, 2024. Notwithstanding the term of our agreement, our license may be terminated if we are in material breach of the license and do not cure the breach within 30 days. In addition, nCino relies on a license to use the Salesforce.com platform, and if nCino were unable to maintain its rights under that license, our ability to rely on the nCino license could be adversely affected. We can offer no assurance that we will be able to renew or maintain our license to use the nCino Bank Operating System on terms that are acceptable. Termination of either of these licenses or the reduction or elimination of our licensed rights may result in our having to negotiate new licenses with less favorable terms, or the inability to obtain access to such licensed technology at all.

Similarly, Apiture, Inc. ("Apiture") has provided the Bank significant engineering, development, professional and other services under an agreement to deliver the products and services that comprise our next-generation banking platform that we believe will be important for our future strategy and success. This banking platform enables us to offer checking and other transactional accounts to our customers. Offering these types of banking products to our customers presents greater and more complex operational, compliance and other risks than the risks associated with the deposit products we have offered in the past. There can be no assurance that Apiture will be able to develop and support the implementation of our banking platform in a timely and cost-effective manner or that Apiture will continue to provide any services on which we rely at appropriate service levels or at prices that would be market competitive. We also rely on numerous other vendors and third parties to provide software and solutions comprising our banking platform. If this technology is not successfully developed and implemented at our Bank, if we were to lose access to any of this technology, or if we were only able to access the technology on less favorable terms, we would not be able to offer our customers the next-generation banking platform services that we intend to offer, and our business, financial condition, results of operations and prospects could be materially and adversely affected.

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

As a financial institution, our operations rely heavily on the secure data processing, storage and transmission of confidential and other information on our computer systems and networks, as well as those of third-party service providers. This may include sensitive business and personal information about our customers. Maintaining the confidentiality of this information is critical to our business. We also maintain important internal company data such as personal information about our employees and information regarding our operations. Our collection of such customer and company data is subject to extensive regulation and oversight.

Cloud technologies, including third-party cloud infrastructure, are also critical to the operation of our systems, and our reliance on cloud technologies continues to grow. Any failure, interruption or breach in security or operational integrity of these systems could result in failures or disruptions in our online banking system, customer relationship management, general ledger, deposit and loan servicing and other systems. The security and integrity of our systems and the technology we use, including services and solutions provided by third-party vendors, could be threatened by a variety of interruptions or information security breaches, including those caused by computer hacking, cyber-attacks, electronic fraudulent activity or attempted theft of financial assets or information. The increased use of mobile and cloud technologies, as well as the increase in remote work, can heighten these and other operational risks. We may fail to promptly identify or adequately address any such failures, interruptions or security breaches when they occur. While we have certain protective policies and procedures in place, the nature and sophistication of the threats continue to evolve. The increasing sophistication of cyber criminals and their evolving attempts to breach networks present increasing risk of a security breach and other data incidents. We may be required to expend significant additional resources in the future to modify and enhance our protective measures.

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

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

Additionally, we face the risk of operational disruption, failure, termination or capacity constraints of any of the third parties that facilitate our business activities, including exchanges, clearing agents, clearing houses or other financial intermediaries. Such parties could also be the source of an attack on, or breach of, our operational systems. Any failures, interruptions or security breaches, including with respect to our information systems or our vendors' information systems, or any perception that our security measures are inadequate, could negatively impact our operations, damage our reputation, result in a loss of customer business, result in a violation of privacy or other laws, and expose us to civil litigation, enforcement actions by governmental agencies, regulatory fines or other damages or losses, including those not covered by insurance.

Our business is dependent on the successful and uninterrupted functioning of our information technology and telecommunications systems and third-party providers. The failure of these systems, or the termination of a third-party software license or service agreement on which any of these systems is based, could interrupt our operations. Because our information technology and telecommunications systems interface with and depend on third-party systems, we could experience service denials if demand for such services exceeds capacity or such third-party systems fail or experience interruptions. If significant, sustained or repeated, a system failure or service denial could compromise our ability to operate effectively, damage our reputation, result in a loss of customer business, and/or subject us to additional regulatory scrutiny and possible financial liability, any of which could materially adversely affect our business, financial condition, results of operations and prospects, as well as the value of our common stock.

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

As of December 31, 2023, the fair value of our available for sale securities portfolio was approximately \$1.13 billion. Factors beyond our control can significantly influence the fair value of securities in our portfolio and can cause potential adverse changes to the fair value of these securities. These factors include, but are not limited to, rating agency actions in respect of the securities, defaults by the issuer or with respect to the underlying securities, monetary tapering actions by the Federal Reserve, and changes in market interest rates and potential instability in the capital markets. Any of these factors, among others, could cause impairments and realized or unrealized losses in future periods and declines in other comprehensive income, which could materially and adversely affect our business, results of operations, financial condition and prospects, as well as the value of our common stock. The process for determining whether a security is reported at the proper carrying amount usually requires complex, subjective judgments about the future financial performance and liquidity of the issuer and any collateral underlying the security in order to assess the probability of receiving all contractual principal and interest payments on the security. Our inability to accurately predict the future performance of an issuer or to efficiently respond to changing market conditions could result in a decline in the value of our investment securities portfolio, which could have a material and adverse effect on our business, results of operations and financial condition. In addition, adjustments to the ACL on available-for-sale investment securities would negatively affect the Company's earnings and regulatory capital ratios.

Our ACL may prove to be insufficient to absorb lifetime losses on loans, leases and off-balance sheet credit exposures.

We maintain allowances for credit losses on loans, leases, and off-balance sheet credit exposures. The ACL on loans and leases are contra-asset valuation accounts that are deducted from the amortized cost basis of these assets to present the net amount expected to be collected. In the case of off-balance-sheet credit exposures, such as committed, but as of yet unfunded loans, the ACL is a liability account reported as an other liability in our consolidated balance sheets. The amount of each allowance account represents management's best estimate of current expected credit losses on these financial instruments considering available information, from internal and external sources, relevant to assessing exposure to credit loss over the contractual term of the instrument. Relevant available information includes historical credit loss experience, current conditions and reasonable and supportable forecasts. As a result, the determination of the appropriate level of ACL inherently involves a high degree of subjectivity and requires us to make significant estimates related to current and expected future credit risks and trends, all of which may undergo material changes. Continuing deterioration in economic conditions affecting borrowers; new information regarding existing loans and loan commitments; and identification of additional problem loans, ratings down-grades and other factors, both within and outside of our control, may require an increase in the allowances for credit losses on loans and off-balance sheet credit exposures. In addition, bank regulatory agencies periodically review our ACL and may require an increase in credit loss expense or the recognition of further loan charge-offs, based on judgments different than those of management. Furthermore, if any charge-offs related to loans or off-balance sheet credit exposures in future periods exceed our allowances for credit losses on loans or off-balance sheet credit exposures, we will need to recognize additional credit loss expense to increase the applicable allowance. Any increase in the ACL on loans and/or off-balance sheet credit exposures will result in a decrease in net income and, possibly, capital, and may have a material adverse effect on our business, financial condition and results of operations. See Note 1. Organization and Summary of Significant Accounting Policies to the consolidated financial statements for further discussion related to our process for determining the appropriate level of the ACL.

The valuation of our loans measured at fair value is based on estimates and subject to fluctuation based on market conditions and other factors that are beyond our control.

We have a large portfolio of loans measured at fair value. We determine fair value based on applicable accounting guidance which requires an entity to base fair value on exit price and to maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The fair value of these loans includes adjustments for historical credit losses, market liquidity, and economic conditions at the measurement date. This is an inherently uncertain process, and the fair value of our loans may be adversely impacted by factors that are beyond our control, which may in turn have a material adverse effect on our business, results of operations and financial condition.

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

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

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

We anticipate that gains on the sale of loans will continue to comprise a meaningful component of our revenue in 2024. The determination of noncash gains is based on assumptions regarding the value of unguaranteed loans retained, servicing rights retained and deferred fees and costs. The value of retained unguaranteed loans and servicing rights is determined as described above. Deferred fees and costs are determined using internal analysis of the cost to originate loans. Significant errors in the assumptions used to compute gains on sale of loans could result in material revenue misstatements, which may have a material adverse effect on our business, results of operations and profitability.

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

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

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

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

We are subject to liquidity risk in our operations.

Liquidity risk refers to the risks arising from the inability to pay obligations when they come due without incurring unacceptable losses to earnings and/or capital, to capitalize on growth opportunities as they arise, or to pay regular dividends because of an inability to liquidate assets or obtain adequate funding on a timely basis. Liquidity is required to fund various obligations, including credit obligations to borrowers, loan originations, withdrawals by depositors, repayment of debt, dividends to shareholders, operating expenses, and capital expenditures. Our liquidity is derived primarily from retail deposit growth and retention, the sale of loans in the secondary market, principal and interest payments on loans and investment securities, net cash provided from operations, and access to other funding sources. A significant portion of our deposit base is gathered through our nationwide direct deposit platform, and we have historically also relied on brokered deposits. If our Bank were to become less than well capitalized, we would be subject to regulatory restrictions that could limit the effective yield we offer on deposits or disrupt our ability to accept brokered deposits. We also could not accept brokered deposits without FDIC approval. See “Capital Adequacy” under the heading “Supervision and Regulation” above for more details on these restrictions. If we became subject to these restrictions, they could have a material adverse effect on our liquidity, results of operations and financial condition.

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

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

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

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

In connection with our banking business, we take title to real estate collateral from time to time through foreclosure or otherwise in connection with efforts to collect debts previously contracted. Such real estate is referred to as other real estate owned (“OREO”). As the amount of OREO increases, our losses, and the costs and expenses to maintain the real estate, likewise increase. The amount of OREO we hold may increase due to various economic conditions or other factors. Any additional increase in losses and maintenance costs and other expenses due to OREO may have a material adverse effect on our business, results of operations and financial condition. Such effects may be particularly pronounced in a market of reduced real estate values and excess inventory, which may make the disposition of OREO properties more difficult, increase maintenance costs and other expenses, and reduce our ultimate realization from any OREO sales. In addition, at the time of acquisition of the OREO we are required to reflect its fair market value in our financial statements. If the OREO declines in value subsequent to its acquisition, we are required to recognize a loss. As a result, declines in the value of our OREO will have a negative effect on our business, results of operations and financial condition. As of December 31, 2023, we had three OREO properties with an aggregate carrying value of \$6.5 million.

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

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

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

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

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

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

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

We are focused on our long-term growth and have undertaken various new business initiatives, many of which involve activities that are new to us, or in some cases, are in the early stages of development. From time to time, we may develop, grow and/or acquire new lines of business or offer new products and services within existing lines of business. There are substantial risks and uncertainties associated with these efforts, particularly in instances where the markets for these products and services are not fully developed. Given our evolving business and product diversification, these and other new initiatives may subject us to, among other risks, increased business, reputational and operational risk, as well as more complex legal, third-party, regulatory and compliance costs and risks.

In developing and marketing new lines of business and/or new products and services, we may invest significant time and resources. Initial timetables for the introduction and development of new lines of business and/or new products or services may not be achieved, and price and profitability targets may not prove feasible. External factors, such as compliance with regulations, competitive alternatives and shifting market preferences, may also impact the successful implementation of a new line of business or a new product or service. Furthermore, any new line of business and/or new product or service could have a significant impact on the effectiveness of our system of internal controls. Failure to successfully manage these risks in the development and implementation of new lines of business or new products or services could have a material adverse effect on our business, results of operations and financial condition. All service offerings, including current offerings and those which may be provided in the future, may become more risky due to changes in economic, competitive and market conditions beyond our control.

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

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

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

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

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

Our investments in various financial technology companies have had a significant impact on our results of operations, and we anticipate they will continue to have a significant impact on our results of operations in the future. Investments where we have the ability to exercise significant influence but not control over the operating and financial policies of the investee are accounted for using the equity method of accounting. For investments accounted for under the equity method, we increase or decrease our investment by our proportionate share of the investee's net income or loss. Those investments where we are not able to exercise significant influence over the investee are accounted for under the equity security accounting method, where changes in fair value resulting from observable price changes arising from orderly transactions are recognized in net income. We also periodically evaluate our investments for impairment. The results of this testing of our investments for potential impairment may be adversely affected by a variety of factors, including market conditions, general economic conditions and unfavorable changes in the businesses underlying the investments. Impairments or write-downs of these assets may result in charges that adversely affect our results of operations. See Note 1. Organization and Summary of Significant Accounting Policies under the subheading entitled "Investments" for more information.

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

As of December 31, 2023, the carrying amount of our investment in Apiture was \$60.7 million. Apiture's future success will depend on its ability to develop, sell and deliver new or enhanced solutions to financial institution clients; however, these solutions and related services may not be attractive to existing or prospective clients. In addition, promoting, selling and delivering these new and enhanced solutions may require increasingly costly sales, marketing and implementation efforts. We also anticipate that Apiture will face challenges from its current competitors, which in many cases are more established and enjoy greater resources than it does, as well as by new entrants into the industry. If Apiture is not able to successfully execute its business plan, then the value of our investment in Apiture could decrease, which could have a material adverse effect on our business, financial condition and results of operations. Apiture's digital banking solution requires sophisticated software and computing systems that may encounter development delays or software defects. Defects in Apiture's software offerings or delays in the development of such software could result in unforeseen costs, diversion of technical and other resources, loss of credibility with existing and potential clients or reputational harm, any of which could materially adversely affect our business, results of operations and financial condition.

Our subsidiary Canapi Advisors is an investment advisor to Canapi Ventures, a series of funds focused on providing venture capital to new and emerging financial technology companies. Canapi Ventures invests in early to growth-stage companies that may include companies that utilize advanced science, technology, engineering and/or mathematics to innovate in the financial technology market. Investments in these companies involve a high degree of business and financial risk that can result in substantial losses. These companies may be unseasoned, unprofitable or have no established operating histories or earnings and may lack technical, marketing, financial and other resources. These companies often have the need for substantial additional capital to support expansion or to achieve or maintain a competitive position. Less established companies tend to have lower capitalization and fewer resources and, therefore, are often more vulnerable to financial failure. These companies may be dependent upon the success of one product or service, a unique distribution channel, or the effectiveness of a manager or management team. The failure of this one product, service or distribution channel, or the loss or ineffectiveness of a key executive or executives within the management team may have a materially adverse impact on such companies. Such companies may face intense competition, including competition from companies with greater financial resources, more extensive development, manufacturing, marketing and service capabilities and a larger number of qualified managerial and technical personnel. If Canapi Advisors is unable to successfully identify investment opportunities, it will likely lose the capital that it invests on behalf of the fund's investors, including the capital that we invest, which would have a materially adverse effect on our results of operations, our reputation and our ability to raise successive funds for similar purposes.

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

Our investments in other companies may be illiquid.

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

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

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

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

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

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

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

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

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

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

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

As of January 31, 2024, our directors and executive officers and their related entities own, in the aggregate, approximately 24.3% of our outstanding common stock. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors' perception that conflicts of interest may exist or arise. In addition, these shareholders will be able to exercise influence over all matters requiring shareholder approval, including the election of directors and approval of corporate transactions, such as a merger or other sale of the Company or its assets. This concentration of ownership could limit the ability of other shareholders to influence corporate matters and may have the effect of delaying or preventing a change in control, including a merger, consolidation or other business combination involving us, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control, even if that change in control would benefit our other shareholders. For information regarding the ownership of our outstanding stock by our executive officers and directors and related entities, see "Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters" in this Report.

Risks Related to Our Regulatory Environment

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

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

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

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

We are required to maintain capital to meet regulatory requirements, and, if we fail to maintain sufficient capital, whether due to growth opportunities, losses or an inability to raise additional capital or otherwise, our financial condition, liquidity and results of operations, as well as our compliance with regulatory requirements, would be adversely affected.

Both we and the Bank are required to meet regulatory capital requirements and otherwise need to maintain sufficient liquidity to support recent and future growth. We have continued to experience considerable growth recently. Asset growth, diversification of our business, expansion of our financial product offerings and other changes in our asset mix continue to require higher levels of capital. Our ability to raise additional capital, when and if needed in the future, to meet such regulatory capital requirements and liquidity needs will depend on conditions in the capital markets, general economic conditions, the performance and prospects of our business and a number of other factors, many of which are outside of our control. We cannot assure you that we will be able to raise additional capital if needed or raise additional capital on terms acceptable to us. If we fail to meet these capital and other regulatory requirements, our financial condition, liquidity and results of operations could be materially and adversely affected.

Although we comply with all current applicable capital requirements, we may be subject to more stringent regulatory capital requirements in the future, and we may need additional capital in order to meet those requirements. If we or the Bank fail to meet applicable minimum capital requirements or cease to be well capitalized, such failure would cause us and the Bank to be subject to regulatory restrictions and could adversely affect customer confidence, our ability to grow, our costs of funds and FDIC insurance costs, our ability to pay dividends on common stock and/or repurchase shares, our ability to make acquisitions, and our business, results of operations and financial condition, generally.

Because our total assets exceed \$10 billion, we are subject to heightened regulatory requirements, which could have an adverse effect on our financial condition or results of operations.

Various federal banking laws and regulations, including rules adopted by the Federal Reserve pursuant to the requirements of the Dodd-Frank Act, impose additional requirements on bank holding companies with total assets of at least \$10 billion. In addition, banks with total assets of at least \$10 billion are primarily examined by the CFPB with respect to federal consumer protection laws and regulations. In the first quarter of 2023, the Company and the Bank each first exceeded \$10 billion in total assets. As of December 31, 2023, the Company and the Bank had total assets of \$11.27 billion and \$11.21 billion, respectively, ending their first four consecutive quarters of reported assets in excess of \$10 billion. As a result, we are subject to additional requirements including, but not limited to, establishing a dedicated risk committee of our Board, calculating our FDIC deposit insurance assessment using the large bank pricing rule and more frequent regulatory examinations. In preparation for these additional compliance obligations, we have incurred significant expenses and expect to continue to incur expenses to address heightened regulatory requirements. These additional regulatory requirements and increased compliance expenses could have a material adverse effect on our business, financial condition and results of operations.

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

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

Our FDIC deposit insurance premiums and assessments may increase.

The deposits of our Bank are insured by the FDIC up to legal limits and, accordingly, subject our Bank to the payment of FDIC deposit insurance assessments. The Bank’s regular assessments are based on its ability to withstand asset- and funding-related stress, its regulatory ratings, and potential losses to the FDIC in the event of the Bank’s failure, subject to discretionary adjustments by the FDIC. In order to maintain a strong funding position and restore the reserve ratios of the DIF, the FDIC has, in the past, increased deposit insurance assessment rates and charged a special assessment to all FDIC-insured financial institutions. Further increases in assessment rates or special assessments may occur in the future, especially if there are significant financial institution failures. Any future special assessments, increases in assessment rates or required prepayments in FDIC insurance premiums could reduce our profitability or limit our ability to pursue certain business opportunities, which could have an adverse effect on our business, financial condition and results of operations.

Negative developments affecting the banking industry have eroded customer confidence in the banking system and may result in additional regulations that could increase the Company’s expenses and affect its operations.

High-profile bank failures in 2023 generated significant market volatility among publicly traded bank holding companies, such as the Company. These market developments negatively impacted customer confidence in the banking system. As a result, customers may choose to maintain deposits with larger financial institutions or invest in higher yielding short-term fixed income securities, all of which could materially adversely impact the Company’s liquidity, loan funding capacity, net interest margin, capital and results of operations. In connection with these high-profile bank failures, uncertainty and concern has been, and may be in the future, compounded by advances in technology that increase the speed at which deposits can be moved, as well as the speed and reach of media attention, including social media, and its ability to disseminate concerns or rumors, in each case potentially exacerbating liquidity concerns. While the Department of the Treasury, the Federal Reserve, and the FDIC have made statements ensuring that depositors of these failed banks would have access to their deposits, including uninsured deposit accounts, there is no guarantee that such actions will be successful in restoring customer confidence.

As a result of these events, the Company anticipates increased regulatory scrutiny—in the course of routine examinations and otherwise—and new regulations, all of which may increase the Company’s costs of doing business and reduce its profitability. Among other things, there may be an increased focus by both regulators and investors on deposit composition and the level of uninsured deposits.

We may incur increased costs to comply with privacy and data security laws and regulations and, to the extent we fail to comply, we could be subject to government enforcement actions, private claims and litigation, adverse publicity, loss of customers, and other negative outcomes.

We are subject to complex and evolving laws and regulations governing the privacy and security of personal information associated with consumers, prospective, current, and former customers, employees and contractors, and other individuals. For example, the Gramm-Leach-Bliley Financial Services Modernization Act of 1999 and state financial services laws and regulations impose restrictions on our collection, use, and disclosure of personal information, as well as requirements for protecting personal information. There are federal and state laws and regulations governing our obligations in the event of data security breaches, computer-security incidents, and similar occurrences. States legislatures have also been actively debating and passing new comprehensive privacy laws. We expect that the body of privacy and data security laws and regulations that may apply to us will continue to grow.

These laws and regulations are continually evolving and are subject to potentially differing interpretations, including as to their scope and applicability to our business. The interpretation of these laws and regulations can be uncertain, and they may be applied inconsistently from one jurisdiction to another or may conflict with other laws and regulations or our practices. As a result, our practices may not have complied or may not comply in the future with all such laws and regulations. Any failure, or perceived failure, by us to comply with these laws or regulations could have a materially adverse impact to our reputation and brand, and may result in government investigations and enforcement actions, as well as claims for damages and other forms of relief by affected individuals, business partners, and other parties. Any such investigations, enforcement actions, or claims could require us to change our operations, incur substantial costs and expenses in an effort to comply, force us to incur significant expenses in defense of such proceedings, distract our management, increase our costs of doing business, result in a loss of customers and vendors, result in the imposition of monetary penalties, and otherwise adversely affect our business, financial condition, and results of operations.

Efforts intended to ensure that our collection, use, disclosure, maintenance, and protection of personal information complies with all applicable laws and regulations in all relevant jurisdictions, including where the laws of different jurisdictions are in conflict, may pose a variety of challenges, including the following:

- Our compliance and operating costs may increase.
- The development of new products or services may be hindered, our ability to offer existing products or services may be curtailed, and the manner in which we offer products and services to customers may be impacted.
- Our efforts may require significant time, attention, and oversight of management, which may result in reduced focus on other operations.
- We may be required to structure our business, operations, and systems in less efficient ways.

Risks Related to Our Common Stock

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

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

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

Live Oak Bancshares, Inc. had 44,648,626 shares of common stock outstanding at January 31, 2024. In addition, as of January 31, 2024, there were outstanding options to purchase 646,161 shares of our common stock that, if exercised, will result in these additional shares becoming available for sale. Also, as of January 31, 2024, there were 2,214,346 outstanding restricted stock units that vest over time that, when vested, will result in additional shares becoming available for sale. A large portion of these shares, options and restricted stock units are held by a relatively small number of persons. Sales by these holders of a substantial number of shares could significantly reduce the market price of our common stock.

There can be no assurance that we will continue to pay cash dividends.

Although we have historically paid cash dividends, there is no assurance that we will continue to pay cash dividends. Future payment of cash dividends, if any, will be at the discretion of our board of directors and will be dependent upon our financial condition, results of operations, capital requirements, economic conditions, and such other factors as the board may deem relevant.

Live Oak Bancshares, Inc. is subject to extensive regulation, and ownership of our common stock may have regulatory implications for its holders.

The Company is subject to extensive federal and state banking laws, including the BHCA and federal and state banking regulations, that impact the rights and obligations of owners of our common stock, including, for example, its ability to declare and pay dividends on its common stock.

Shares of Live Oak Bancshares, Inc.'s common stock are voting securities for purposes of the BHCA. The BHCA generally requires regulatory approval before any individual or company may acquire 25% or more of any class of Live Oak Bancshares Inc.'s common stock, and such regulatory approval may be required under certain circumstances if a person, company or group acting in concert acquires 10% or more, but less than 25% of Live Oak Bancshares Inc.'s common stock. Holders of our common stock should consult their own counsel with regard to regulatory implications.

Anti-takeover provisions could adversely affect Live Oak Bancshares, Inc. shareholders.

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

Shares of Live Oak Bancshares, Inc.'s common stock are not insured deposits and may lose value.

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

General Risk Factors

We face strong competition from a diverse group of competitors.

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

We compete with these institutions both in attracting deposits and in making loans, primarily on the basis of the interest rates we pay and yield on these products. We also compete with these institutions in our other business lines, including wealth management. Many of our competitors are well-established, much larger financial institutions. While we believe we can successfully compete with these other lenders in our industry verticals, we may face a competitive disadvantage as a result of our smaller size. Furthermore, nothing would prevent our competitors from developing or licensing a technology-based platform similar to the technology-based platform we currently use in our business. In addition, many of our non-bank competitors have fewer regulatory constraints and may have lower cost structures. We expect competition to continue to intensify due to financial institution consolidation, legislative, regulatory and technological changes, and the emergence of alternative banking sources.

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

- our ability to build and maintain long-term customer relationships while ensuring high ethical standards and safe and sound banking practices;
- the scope, relevance and pricing of products and services that we offer;
- customer satisfaction with our products and services;

- industry and general economic trends; and
- our ability to keep pace with technological advances and to invest in new technology to provide products and services that will satisfy customer demands, as well as create additional efficiencies in our operations.

Our competitors may have greater resources to invest in technological improvements. We may not be able to effectively implement new technology-driven products and services or be successful in marketing these products and services to our customers. In addition, our implementation of certain new technologies, such as those related to artificial intelligence, automation and algorithms, in our business processes may have unintended consequences due to their limitations or our failure to use them effectively.

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

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

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

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

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

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

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

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

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

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

From time to time, the SEC and the Financial Accounting Standards Board (“FASB”) update accounting principles generally accepted in the United States (“GAAP”) that govern the preparation of our financial statements. In addition, the FASB, SEC, bank regulators and the outside independent auditors may revise their previous interpretations regarding existing accounting regulations and the application of these accounting standards. These changes can be hard to predict and can materially impact how we record and report our financial condition and results of operations. In some cases, we could be required to apply a new or revised standard retroactively, resulting in changes to previously reported financial results, or a cumulative charge to retained earnings. In addition, management is required to use certain assumptions and estimates in preparing our financial statements, including determining the fair value of certain assets and liabilities, among other items. If the assumptions or estimates are incorrect, we may experience unexpected material adverse consequences that could negatively affect our business, results of operations and financial condition.

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

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

Item 1B. UNRESOLVED STAFF COMMENTS

There were no unresolved comments received from the SEC regarding the Company’s periodic or current reports.

Item 1C. CYBERSECURITY

Risk Management and Strategy

The Company maintains a cybersecurity risk management program that is designed to enable us to assess, identify, and manage risk associated with cybersecurity threats (the “Cybersecurity Program”). Our Cybersecurity Program is based on the Cybersecurity Framework promulgated by the National Institute of Standards and Technology and other applicable industry standards. It includes the following elements:

- Identification and assessment of cybersecurity threats based on periodic internal and external assessments and monitoring, information from internal stakeholders, and external publications and resources.
- Technical and organizational safeguards designed to protect against identified threats, including documented policies and procedures, employee training and awareness, and technical controls.
- Processes to detect the occurrence of cybersecurity events and incidents, maintenance, and periodic testing of incident response and recovery and business continuity plans and processes.
- A third-party risk management program to manage cybersecurity risks associated with our service providers, suppliers, and vendors using a risk-based approach that focuses on cybersecurity risks associated with critical service providers, suppliers, and vendors.

Further, the Company’s internal controls, various threat landscapes, internal events and incidents, and emerging risks are periodically reviewed to make adjustments to the Cybersecurity Program as needed. Additionally, annual risk assessments and penetration tests are performed.

Management of Material Risks & Integrated Overall Risk Management

Assessing, identifying, and managing cybersecurity risks is integrated into our overall risk management framework. The Cybersecurity Program is integrated into the Company's Enterprise Risk Management ("ERM") program and framework. Together, these programs are designed to foster a company-wide culture of cybersecurity risk management. Our Information Security team works closely with stakeholders across technology, legal, risk, and business units to implement and monitor controls. See "Governance" below for additional information on processes used by management to monitor cybersecurity incidents.

Engagement of Third Parties in Connection With Risk Management

The Company leverages various third parties to conduct evaluations of our Cybersecurity Program, including security controls. The Company engages a third party to audit its information technology function, which includes an assessment of the Company's cybersecurity efforts. The Company also maintains cybersecurity insurance; however, the costs related to cybersecurity threats or disruptions may not be fully insured. Additionally, the Company engages third parties to perform penetration tests on an annual basis. The Company also periodically engages third parties for assessments of specific products, services, or applications. The Company leverages various software and service providers as part of its Cybersecurity Program, including a managed security service provider and a service provider that helps monitor third-party suppliers. The Company also receives periodic threat intelligence reports from vendors, peers, and industry information sharing and analysis centers. The Company maintains a relationship with a leading incident response firm to assist the Company in responding to cybersecurity incidents, if appropriate.

Oversight of Third-party Risks

Our third-party service providers, suppliers, vendors, and partners face cybersecurity risks that could impact us. Therefore, the Company has developed and implemented processes to oversee and manage these risks. These processes include performing third-party onboarding due diligence such as risk assessments and information security reviews for critical service providers, suppliers, and vendors, seeking to have third-parties agree to contractual requirements designed to ensure cybersecurity and related matters are addressed, and conducting ongoing monitoring and due diligence in accordance with our vendor management and information security policies and standards. As noted above, we use a third-party to aid us in monitoring third-parties' cybersecurity risk.

Risks from Cybersecurity Threats

As of the date of this report, we have not encountered any risks from cybersecurity threats that have materially affected or are reasonably likely to materially affect the Company, including its business strategy, results of operations, or financial condition.

Governance

Managing cybersecurity risk is a key focus for the Board of Directors. The Company seeks to ensure effective governance in managing risks associated with cybersecurity threats, as more thoroughly described below.

Board of Directors Oversight

The Risk Committee of the Board of Directors is responsible for the oversight of risks from cybersecurity threats. As described below, where appropriate, strategic risk management decisions are escalated to the Risk Committee, and the Risk Committee receives periodic reports on cybersecurity matters from management.

Management's Role in Cybersecurity Risk Management

The Chief Information Security Officer ("CISO") of the Bank and a standing management Information Security Committee monitor, measure, and report key indicators, risk assessments, and security measures to the management Corporate Risk Committee. The CISO, in conjunction with the Corporate Risk Committee, makes quarterly reports to, the Risk Committee of the Board of Directors. Such quarterly reporting may include, but is not limited to, key metrics and risk indicators, penetration test results, risk assessment results, status of ongoing initiatives, incident and notable event reports, compliance with regulatory standards, and operational issues.

In addition to quarterly reporting to the Board's Risk Committee, the Company's incident response processes include escalation to management when an incident is suspected.

Risk Management Personnel

Primary responsibility for assessing, monitoring, and managing our Cybersecurity Program rests with the CISO, Mr. Richard Friedberg. With over 25 years of experience in the field of cybersecurity, his background includes extensive experience across the financial sector, technology sector, and U.S. government. Mr. Friedberg is also an adjunct faculty member at Carnegie Mellon University, teaching risk and cyber practices. Mr. Friedberg holds a Bachelor of Science from Carnegie Mellon University, a Master of Business Administration from George Washington University, and maintains certification as a Certified Information Systems Security Professional and Certified Information Security Manager.

Monitoring Cybersecurity Incidents

The CISO is continually informed of and monitors cybersecurity risks and incidents through real-time updates, including a partnership with a managed security service provider. Periodic Information Security Committee meetings cover key metrics and risk indicators, penetration test results, risk assessment results, status of ongoing initiatives, incident and notable event reports, compliance with regulatory standards, and operational issues. In the event of a cybersecurity incident, we have an established incident response plan that requires prompt notification of the CISO or the CISO's designee, who in turn engages with the corporate Incident Response Team (IRT) to respond to the incident. The CISO is also responsible for informing the Information Security Committee of cybersecurity incidents, which in turn reviews the impact of incidents and monitors the Company's mitigation and remediation efforts. Depending on the nature of the incident, this process also provides for escalating notice to the Risk Committee of the Board of Directors. These processes assist management and the Risk Committee in staying informed of and monitoring the prevention, detection, mitigation, and remediation of cybersecurity incidents.

Reporting to Board of Directors

The CISO, in his capacity, periodically informs the Information Security Committee, Corporate Risk Committee and Board's Risk Committee of cybersecurity risks and incidents. This enables the highest levels of management to be kept abreast of the Company's cybersecurity posture and potential risks facing the Company. Furthermore, significant cybersecurity matters and strategic risk management decisions are escalated to the Risk Committee of the Board of Directors, where appropriate.

Item 2. PROPERTIES

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

Office	Address	Year Opened	Approximate Square Footage	Owned or Leased	Operating Segment
Wilmington, NC Main Offices	1741 Tiburon Dr	2013	36,000	Owned	Banking
	1757 Tiburon Dr	2015	55,000		Fintech
	1805 Tiburon Dr	2019	80,972		
	1811 Tiburon Dr	2019	24,329		
Santa Rosa, CA Office	100 B St Ste. 100	2015	2,386	Leased	Banking
Roseville, CA Office	1223 Pleasant Grove Blvd Ste. 120	2016	1,416	Leased	Banking
Wilmington Flight Operations	1890 Trask Dr	2017	25,500	Owned	Banking Fintech
Raleigh, NC Office	1017 Main Campus Dr, Ste. 3200	2019	3,889	Leased	Banking
Rocky Mount, NC Office	210 Bryant St, Ste. A	2020	1,698	Leased	Banking
Wilmington, NC Office	106 Market Street, Ste. 200	2021	5,110	Leased	Banking
Dallas, TX Office	14675 N. Dallas Parkway, Ste. 525	2022	5,241	Leased	Banking
Charlotte, NC Office	1018 Jay Street, Ste. 300	2023	7,645	Leased	Banking

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

Item 3. LEGAL PROCEEDINGS

In the ordinary course of operations, the Company is at times involved in legal proceedings. In the opinion of management, as of December 31, 2023, there are no material pending legal proceedings to which the Company or any of its subsidiaries is a party or of which any of their property is the subject. In addition, the Company is not aware of any threatened litigation, unasserted claims or assessments that could have a material adverse effect on its business, operating results or financial condition.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

Market Information

Bancshares' voting common stock is traded on the NYSE under the symbol "LOB." Quotations of the sales volume and the closing sales prices of the voting common stock of Bancshares are listed daily in the NYSE listings. Bancshares' non-voting common stock is not listed for trading on any exchange.

Holders

As of January 31, 2024, there were 44,648,626 voting shares outstanding and 210 holders of record for Bancshares' common stock.

Dividend Policy

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

Recent Sales of Unregistered Securities

None.

Securities Authorized for Issuance under Equity Compensation Plans

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

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

On May 17, 2022, the Board of Directors of the Company authorized the repurchase of up to \$50,000,000 in shares of the Company's voting common stock from time to time through December 31, 2023 (the "Repurchase Program"). The Repurchase Program enabled the Company to acquire shares through open market purchases or privately negotiated transactions, including through a Rule 10b5-1 plan, at the discretion of management and on terms (including quantity, timing, and price) that management determined to be advisable. Actions in connection with the repurchase program were subject to various factors, including the Company's capital and liquidity positions, regulatory and accounting considerations, the Company's financial and operational performance, alternative uses of capital, the trading price of the Company's common stock, and market conditions. The repurchase program did not obligate the Company to acquire a specific dollar amount or number of shares and was subject to extension, modification, or discontinuance at any time. As of December 31, 2023, the Company had not made any purchases of shares under the Repurchase Program.

Stock Performance Graph

The stock performance graph required by Item 201(e) of Regulation S-K is incorporated into this Report by reference from Bancshares annual report to shareholders for the year ended December 31, 2023, which will be posted on the Company's website and furnished to the SEC subsequent to the date of this Report. The stock performance graph shall not be deemed to be "filed" for purposes of Section 18 of the Exchange Act, nor shall it be deemed to be "soliciting material" subject to Regulation 14A or incorporated by reference in any filing under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Item 6. [RESERVED]

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

Overview

The following presents management’s discussion and analysis (“MD&A”) of the more significant factors that affected the Company’s financial condition and results of operations for the year ended December 31, 2023 as compared to December 31, 2022. For a comparison of 2022 results to 2021 and other 2021 information not included herein, refer to “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under Part II, Item 7 of the 2022 Form 10-K filed with the SEC on February 23, 2023. This discussion should be read in conjunction with the financial statements and related notes included elsewhere in this Report on Form 10-K. Results of operations for the periods included in this review are not necessarily indicative of results to be obtained during any future period.

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

Nature of Operations

Live Oak Bancshares, Inc. (collectively with its subsidiaries including Live Oak Banking Company, the “Company”) is a financial holding company and a bank holding company headquartered in Wilmington, North Carolina, incorporated under the laws of North Carolina in December 2008. The Company conducts business operations primarily through its commercial bank subsidiary, Live Oak Banking Company (the “Bank”). The Bank was incorporated in February 2008 as a North Carolina-chartered commercial bank. The Bank specializes in providing lending and deposit related services to small businesses nationwide. A significant portion of the loans originated by the Bank are partially guaranteed by the U.S. Small Business Administration (“SBA”) under the 7(a) Loan program and the U.S. Department of Agriculture (“USDA”) Rural Energy for America Program (“REAP”), Water and Environmental Program (“WEP”), Business & Industry (“B&I”) and Community Facilities loan programs. These loans are to small businesses and professionals with what the Bank believes are lower risk characteristics. Industries, or “verticals,” on which the Bank focuses its lending efforts are carefully selected. The Bank also lends more broadly to select borrowers outside of those verticals.

As of December 31, 2023, the Company’s wholly owned material subsidiaries were the Bank, Government Loan Solutions (“GLS”), Live Oak Grove, LLC (“Grove”), Live Oak Ventures, Inc. (“Live Oak Ventures”) and Canapi Advisors, LLC (“Canapi Advisors”). GLS is a management and technology consulting firm that advises and offers solutions and services to participants in the government guaranteed lending sector. GLS primarily provides services in connection with the settlement, accounting, and securitization processes for government guaranteed loans, including loans originated under the SBA 7(a) loan programs and USDA guaranteed loans. The Grove provides Company employees and business visitors with on-site dining. Live Oak Ventures’ purpose is investing in businesses that align with the Company’s strategic initiative to be a leader in financial technology. Canapi Advisors provides investment advisory services to a series of funds (the “Canapi Funds”) focused on providing venture capital to new and emerging financial technology companies.

As of December 31, 2023, the Bank’s wholly owned subsidiaries were Live Oak Number One, Inc., Live Oak Clean Energy Financing LLC (“LOCEF”), Live Oak Private Wealth, LLC (“Live Oak Private Wealth”) and Tiburon Land Holdings, LLC (“TLH”). Live Oak Number One, Inc. holds properties foreclosed on by the Bank. LOCEF provides financing to entities for renewable energy applications. Live Oak Private Wealth provides high-net-worth individuals and families with strategic wealth and investment management services. During the first quarter of 2022, Jolley Asset Management, LLC (“JAM”) was merged into Live Oak Private Wealth. JAM was previously a wholly owned subsidiary of Live Oak Private Wealth. TLH holds land adjacent to the Bank’s headquarters consisting of wetlands and other protected property for the use and enjoyment of the Bank’s employees and customers.

The Company generates revenue primarily from net interest income and secondarily through the origination and sale of government guaranteed loans. Income from the retention of loans is comprised principally of interest income. Income from the sale of loans is comprised of loan servicing revenue and revaluation of related servicing assets along with net gains on sales of loans. Offsetting these revenues are the cost of funding sources, provision for loan and lease credit losses, any costs related to foreclosed assets and other operating costs such as salaries and employee benefits, travel, professional services, advertising and marketing and tax expense. The Company also has less routinely generated gains and losses arising from its financial technology investments predominantly in its fintech segment, as discussed more fully later in this section under the caption “Results of Segment Operations.”

Executive Summary

The table below sets forth selected consolidated financial data as of the dates or for the periods indicated.

	As of and for the Year Ended December 31,		
	2023	2022	2021
Income Statement Data			
Net income	\$ 73,898	\$ 176,208	\$ 166,995
Per Common Share			
Net income, diluted	\$ 1.64	\$ 3.92	\$ 3.71
Dividends declared	0.12	0.12	0.12
Book value	20.23	18.41	16.39
Tangible book value ⁽¹⁾	20.15	18.32	16.31
Performance Ratios			
Return on average assets	0.69 %	1.96 %	2.03 %
Return on average equity	8.66	21.92	25.58
Net interest margin	3.35	3.87	3.86
Efficiency ratio ⁽¹⁾	70.65	55.57	50.55
Noninterest income to total revenue	24.45	42.09	35.06
Dividend payout ratio	7.20	2.99	3.10
Selected Loan Metrics			
Loans and leases originated	\$ 3,946,873	\$ 4,007,621	\$ 4,480,725
Outstanding balance of sold loans serviced	4,238,328	3,481,885	3,298,828
Asset Quality Ratios			
Allowance for credit losses to loans and leases held for investment ⁽²⁾	1.53 %	1.41 %	1.30 %
Net charge-offs ⁽²⁾	\$ 21,373	\$ 7,961	\$ 3,932
Net charge-offs to average loans and leases held for investment ⁽²⁾⁽³⁾	0.28 %	0.14 %	0.08 %
Nonperforming loans and leases at historical cost ⁽²⁾			
Unguaranteed	\$ 39,285	\$ 18,784	\$ 15,987
Guaranteed	95,678	54,608	26,546
Total	134,963	73,392	42,533
Unguaranteed nonperforming historical cost loans and leases, to loans and leases held for investment ⁽²⁾	0.48 %	0.27 %	0.33 %
Nonperforming loans at fair value ⁽⁴⁾			
Unguaranteed	\$ 7,230	\$ 6,678	\$ 4,791
Guaranteed	41,244	38,212	33,471
Total	48,474	44,890	38,262
Unguaranteed nonperforming fair value loans to loans held for investment ⁽⁴⁾	1.86 %	1.35 %	0.74 %
Consolidated Capital Ratios			
Common equity tier 1 capital (to risk-weighted assets)	11.73 %	12.47 %	12.38 %
Tier 1 leverage capital (to average assets)	8.58	9.26	8.87

(1) See "Non-GAAP Measures" presented at the conclusion of this Item 7 for more information and a reconciliation to the most closely related GAAP measure.

(2) Loans and leases at historical cost only (excludes loans measured at fair value).

(3) Annual net charge-offs as a percentage of annual average loans and leases held for investment, at amortized cost.

(4) Loans accounted for under the fair value option only (excludes loans and leases carried at historical cost).

The following is a summary of the Company's financial highlights and events for 2023:

- Loans and leases held for sale and investment increased by \$1.12 billion, or 14.2%. Total loan originations in 2023 were \$3.95 billion compared to \$4.01 billion in 2022, a decrease of 1.5%. Substantial loan production in 2023 was the primary driver of growth in total assets which increased to \$11.27 billion at December 31, 2023 as compared to \$9.86 billion at December 31, 2022, for an increase of \$1.42 billion, or 14.4%.
- Supporting loan growth, total deposits increased by \$1.39 billion, or 15.6%, to \$10.28 billion at the end of 2023.
- Net income decreased \$102.3 million, or 58.1%, from \$176.2 million, or \$3.92 per diluted share, to \$73.9 million, or \$1.64 per diluted share. This decrease was primarily the result of significant one-time gains in 2022 from the sale of two equity method investments. A detailed overview of key drivers of year over year changes in reported net income is outlined more fully in the opening to the section titled “Results of Operations.”
- The banking crisis in the spring of 2023 temporarily drove strategically higher levels of liquidity and affected the Company’s offering of products which provide depositors with FDIC insurance in excess of \$250 thousand, and heightened industry attention to uninsured deposit risk. At December 31, 2023 the Company’s uninsured deposits were \$1.46 billion, or 14.2%, of total deposits.
- In the second consecutive year of continued Federal Reserve rate increases, net interest margin declined to 3.35% for 2023 as compared to 3.87% for 2022. This decline in net interest margin was outpaced by 2023 loan growth which largely drove an increase in net interest income of \$17.8 million, or 5.4%.
- In the third quarter of 2023, the Company changed the valuation techniques used to estimate the fair value of its servicing rights and loans measured at fair value as a result of rising interest rates and their impacts on market conditions. These revisions were made to provide estimates which the Company believes are more representative of fair value. These estimate changes were implemented as of July 1, 2023 and resulted in one-time adjustments on that date to increase the estimated value of the servicing asset by \$13.7 million and loans measured at fair value by \$1.3 million, or a total impact to noninterest income of \$15.0 million.
- The provision for loan and lease credit losses increased \$10.4 million, largely the result of significant held for investment loan growth combined with charge-off experience impacts. Total nonperforming unguaranteed loans and leases as a percentage of total loans and leases held for investment, both excluding loans measured at fair value, increased from 0.27% at the end of 2022 to 0.48% at the end of 2023. Net charge-offs as a percentage of average held for investment loans and leases carried at historical cost, for the years ended December 31, 2023 and 2022, were 0.28% and 0.14%, respectively.

Business Outlook

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

The Company's results for 2023 demonstrated a continuation of solid growth momentum in building predictable long-term core earnings, proactive credit risk management and a resilient business model. Management continues to focus on building recurring revenue streams, promoting change within the financial technology industry, and building out selected existing verticals while adding new verticals to the Company's business model. Management anticipates that the Company's loan and lease portfolios will continue to grow as a result of its proven customer first focus combined with the continued pursuit of expanded small business lending within the SBA and other government programs as well as conventional lending.

Non-GAAP Financial Measures

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

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

Results of Operations

The Company reported net income of \$73.9 million, or \$1.64 per diluted share, for 2023 compared to \$176.2 million, or \$3.92 per diluted share, for 2022.

The decrease in net income was principally due to the decrease in equity method investment income of \$150.2 million, primarily a result of the aggregate \$149.2 million gains included in equity method investments income in 2022 related to the sales of the Company's investments in Finxact, Inc. ("Finxact") and Payrailz, LLC ("Payrailz"). To a lesser extent, the decrease was also influenced by a \$10.4 million increase in the provision for loan and lease credit losses, which was primarily the result of loan growth and charge-off related impacts.

Key factors partially offsetting the year-over-year decrease in net income were:

- Increase in net interest income of \$17.8 million, or 5.4%, driven by increases in loan volumes, partially mitigated by a decrease in net interest margin arising from an increase in interest-bearing liabilities combined with average cost of funds outpacing the average yield on interest-earning assets;
- Increase in the loan servicing asset revaluation income of \$21.5 million, principally due to the third quarter of 2023 change in valuation techniques used to estimate the fair value of servicing rights; and
- A decrease in income tax expense of \$25.2 million, or 73.8%, primarily related to decreased pretax income.

Net Interest Income and Margin

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

For 2023, net interest income increased \$17.8 million, or 5.4%, to \$345.3 million compared to \$327.5 million for 2022. This increase was principally due to the significant growth in the held for investment loan and lease portfolio outpacing growth in interest-bearing liabilities offset by an increase in average cost of funds which exceeded the increase in average yield on interest-earning assets. Excluding PPP loan impacts, comprised of amortization of net deferred fees combined with a 1% annualized interest rate less the related interest expense from funding activity, net interest income increased by \$24.3 million. Average interest-earning assets increased by \$1.84 billion, or 21.8%, to \$10.30 billion for 2023, compared to \$8.46 billion for 2022, while the yield on average interest-earning assets increased 143 basis points to 6.68%. The cost of funds on interest-bearing liabilities for 2023 increased 212 basis points to 3.59%, and the average balance of interest-bearing liabilities increased by \$1.57 billion, or 19.6%, over 2022.

The increase in average interest-bearing liabilities was largely driven by funding for significant loan originations and growth as well as maintenance of the Company's target liquidity profile. As indicated in the rate/volume table below, the overall increase discussed above is reflected in increased interest income of \$243.8 million outpacing growth in interest expense of \$226.0 million for 2023 compared to 2022. The net interest margin decreased from 3.87% for 2022 to 3.35% for 2023.

During 2023, the Federal Reserve increased the federal funds upper target rate by 100 basis points to 5.5%. In December 2023, the Federal Reserve released its most current federal funds target rate midpoint projections which implied a decrease of the median Federal Funds rate to 4.6% by the end of 2024 and a decrease of approximately 100 basis points to 3.6% by the end of 2025. There can be no assurance that any further increases or decreases in the Federal Funds rate will occur, and if they do, the amount and timing of actual adjustments are subject to change.

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

	2023			2022			2021		
	Average Balance	Interest	Average Yield/Rate	Average Balance	Interest	Average Yield/Rate	Average Balance	Interest	Average Yield/Rate
Interest-earning assets:									
Interest-earning balances in other banks	\$ 584,691	\$ 29,487	5.04 %	\$ 228,866	\$ 3,465	1.51 %	\$ 407,474	\$ 920	0.23 %
Federal funds sold	34,529	1,624	4.70	109,473	2,796	2.55	18,714	22	0.12
Investment securities	1,237,458	33,497	2.71	995,481	19,667	1.98	797,426	12,533	1.57
Loans held for sale	539,197	48,235	8.95	952,606	58,943	6.19	1,111,216	60,044	5.40
Loans and leases held for investment ⁽¹⁾	7,905,875	575,432	7.28	6,174,763	359,602	5.82	5,350,055	287,694	5.38
Total interest-earning assets	<u>10,301,750</u>	<u>688,275</u>	<u>6.68</u>	<u>8,461,189</u>	<u>444,473</u>	<u>5.25</u>	<u>7,684,885</u>	<u>361,213</u>	<u>4.70</u>
Less: Allowance for credit losses on loans and leases	(110,855)			(67,234)			(54,975)		
Noninterest-earning assets	<u>493,968</u>			<u>576,524</u>			<u>592,237</u>		
Total assets	<u>\$10,684,863</u>			<u>\$ 8,970,479</u>			<u>\$ 8,222,147</u>		
Interest-bearing liabilities:									
Interest-bearing checking	\$ 231,413	\$ 12,718	5.50 %	\$ —	\$ —	— %	\$ 76,714	\$ 442	0.58 %
Savings	4,428,306	171,151	3.86	3,903,151	57,740	1.48	3,077,933	16,667	0.54
Money market accounts	125,279	721	0.58	100,684	303	0.30	103,078	300	0.29
Certificates of deposit	4,695,161	155,617	3.31	3,849,203	56,992	1.48	3,181,591	42,331	1.33
Total deposits	<u>9,480,159</u>	<u>340,207</u>	<u>3.59</u>	<u>7,853,038</u>	<u>115,035</u>	<u>1.46</u>	<u>6,439,316</u>	<u>59,740</u>	<u>0.92</u>
Other borrowings	61,743	2,763	4.48	122,946	1,937	1.58	1,007,596	4,688	0.47
Total interest-bearing liabilities	<u>9,541,902</u>	<u>342,970</u>	<u>3.59</u>	<u>7,975,984</u>	<u>116,972</u>	<u>1.47</u>	<u>7,446,912</u>	<u>64,428</u>	<u>0.87</u>
Noninterest-bearing deposits	215,327			125,062			77,104		
Noninterest-bearing liabilities	74,046			65,619			45,424		
Shareholders' equity	<u>853,588</u>			<u>803,814</u>			<u>652,707</u>		
Total liabilities and shareholders' equity	<u>\$10,684,863</u>			<u>\$ 8,970,479</u>			<u>\$ 8,222,147</u>		
Net interest income and interest rate spread		<u>\$ 345,305</u>	<u>3.09 %</u>		<u>\$ 327,501</u>	<u>3.78 %</u>		<u>\$ 296,785</u>	<u>3.83 %</u>
Net interest margin			<u>3.35 %</u>			<u>3.87 %</u>			<u>3.86 %</u>
Ratio of average interest-earning assets to average interest-bearing liabilities			<u>107.96 %</u>			<u>106.08 %</u>			<u>103.20 %</u>

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

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

	2023 vs. 2022			2022 vs. 2021		
	Increase (Decrease) Due to			Increase (Decrease) Due to		
	Rate	Volume	Total	Rate	Volume	Total
Interest income:						
Interest-earning balances in other banks	\$ 14,356	\$ 11,666	\$ 26,022	\$ 4,099	\$ (1,554)	\$ 2,545
Federal funds sold	1,547	(2,719)	(1,172)	1,562	1,212	2,774
Investment securities	8,165	5,665	13,830	3,621	3,513	7,134
Loans held for sale	20,573	(31,281)	(10,708)	8,091	(9,192)	(1,101)
Loans and leases held for investment	102,422	113,408	215,830	25,720	46,188	71,908
Total interest income	147,063	96,739	243,802	43,093	40,167	83,260
Interest expense:						
Interest-bearing checking	—	12,718	12,718	—	(442)	(442)
Savings	99,378	14,033	113,411	32,735	8,338	41,073
Money market accounts	310	108	418	10	(7)	3
Certificates of deposit	78,343	20,282	98,625	5,277	9,384	14,661
Other borrowings	2,678	(1,852)	826	6,276	(9,027)	(2,751)
Total interest expense	180,709	45,289	225,998	44,298	8,246	52,544
Net interest income	<u>\$ (33,646)</u>	<u>\$ 51,450</u>	<u>\$ 17,804</u>	<u>\$ (1,205)</u>	<u>\$ 31,921</u>	<u>\$ 30,716</u>

Provision for Loan and Lease Credit Losses

The provision for loan and lease credit losses represents the amount necessary to be charged against the current period's earnings to maintain the allowance for credit losses ("ACL") on loans and leases at a level that the Company believes is appropriate in relation to the estimated losses inherent in the loan and lease portfolio.

Losses inherent in loan relationships are mitigated if a portion of the loan is guaranteed by the SBA or USDA. Typical SBA 7(a) and USDA guarantees range from 50% to 90% depending on loan size and type, which serve to reduce the risk profile of these loans. The Company believes that its focus on compliance with regulations and guidance from the SBA and USDA are key factors to managing this risk.

For 2023, the provision for loan and lease credit losses was \$51.3 million compared to \$40.9 million in 2022, an increase of \$10.4 million. The 2023 increase in provision was primarily the result of loan growth and charge-off related impacts.

Loans and leases held for investment at historical cost were \$8.25 billion as of December 31, 2023, an increase of \$1.40 billion, or 20.4%, compared to December 31, 2022.

Net charge-offs for loans and leases carried at historical cost were \$21.4 million, or 0.28% of average loans and leases held for investment at amortized cost, excluding loans measured at fair value, for 2023, compared to net charge-offs of \$8.0 million, or 0.14%, for 2022, an increase of \$13.4 million, or 168.5%. The increase in net charge-offs for 2023 was primarily isolated to six relationships. Net charge-offs are a key element of historical experience in the Company's estimation of the allowance for credit losses on loans and leases.

In addition, nonperforming loans and leases not guaranteed by the SBA or USDA, excluding \$7.2 million and \$6.7 million accounted for under the fair value option at December 31, 2023 and 2022, respectively, totaled \$39.3 million, which was 0.48% of the held for investment loan and lease portfolio carried at historical cost at December 31, 2023, compared to \$18.8 million, or 0.27% of loans and leases held for investment carried at historical cost at December 31, 2022.

Noninterest Income

Noninterest income is principally comprised of net gains from the sale of SBA and USDA-guaranteed loans along with servicing revenue and related revaluation of the servicing asset. Revenue from the sale of loans depends upon the volume, maturity structure and rates of underlying loans as well as the pricing and availability of funds in the secondary markets prevailing in the period between completed loan funding and closing of sale. In addition, the loan servicing asset revaluation is significantly impacted by changes in market rates and other underlying assumptions such as prepayment speeds and default rates. Net (loss) gain on loans accounted for under the fair value option is also significantly impacted by changes in market rates, prepayment speeds and inherent credit risk. Other less consistent elements of noninterest income include gains and losses on investments.

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

	Years Ended December 31,			2022/2023 Increase (Decrease)		2021/2022 Increase (Decrease)	
	2023	2022	2021	Amount	Percent	Amount	Percent
	Noninterest income						
Loan servicing revenue	\$ 27,399	\$ 25,359	\$ 25,219	\$ 2,040	8.0 %	\$ 140	0.6 %
Loan servicing asset revaluation	4,886	(16,577)	(11,726)	21,463	129.5	(4,851)	(41.4)
Net gains on sales of loans	46,545	43,244	67,280	3,301	7.6	(24,036)	(35.7)
Net (loss) gain on loans accounted for under the fair value option	(3,539)	1,046	4,257	(4,585)	(438.3)	(3,211)	(75.4)
Equity method investments (loss) income	(5,994)	144,250	(1,716)	(150,244)	(104.2)	145,966	8,506.2
Equity security investments (losses) gains, net	(969)	3,355	44,752	(4,324)	(128.9)	(41,397)	(92.5)
Lease income	10,007	10,084	10,263	(77)	(0.8)	(179)	(1.7)
Management fee income	13,324	10,090	6,378	3,234	32.1	3,712	58.2
Other noninterest income	20,074	17,141	15,493	2,933	17.1	1,648	10.6
Total noninterest income	\$ 111,733	\$ 237,992	\$ 160,200	\$ (126,259)	(53.1)%	\$ 77,792	48.6 %

Years ended December 31, 2023 vs. 2022

For 2023, noninterest income decreased by \$126.3 million, or 53.1%, compared to 2022. The decrease over the prior year is primarily a result of the aggregate \$149.2 million in Finxact and Payrailz gains included in equity method investments income in 2022. To a lesser extent, the decrease was also influenced by a \$4.6 million negative change in net losses on loans accounted for under the fair value option and decreased equity security investments gains of \$4.3 million. Partially offsetting the decrease over 2022 was an increased net gain of \$21.5 million related to the loan servicing asset revaluation combined with increased net gains on sales of loans of \$3.3 million and a \$3.2 million increase in management fee income generated by Canapi Advisors. Canapi Advisors is included in the Company's Fintech segment.

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

	Three months ended December 31,		Three months ended September 30,		Three months ended June 30,		Three months ended March 31,	
	2023	2022	2023	2022	2023	2022	2023	2022
Amount of loans and leases originated	\$ 981,703	\$ 1,177,688	\$ 1,073,255	\$ 1,005,235	\$ 861,033	\$ 959,635	\$ 1,030,882	\$ 865,063
Guaranteed portions of loans sold	239,066	144,258	225,585	148,110	245,074	68,818	167,826	219,703
Outstanding balance of guaranteed loans sold ⁽¹⁾	2,986,959	2,668,110	2,909,343	2,671,705	2,808,200	2,681,079	2,695,757	2,786,403

	Years ended December 31,				
	2023	2022	2021	2020	2019
Amount of loans and leases originated	\$ 3,946,873	\$ 4,007,621	\$ 4,480,725	\$ 4,450,198	\$ 2,001,886
Guaranteed portions of loans sold	877,551	580,889	668,462	542,596	340,374
Outstanding balance of guaranteed loans sold ⁽¹⁾	2,986,959	2,668,110	2,756,915	2,819,625	2,746,480

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

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

Loan Servicing Asset Revaluation: The Company revalues its serviced loan portfolio at least quarterly. The valuation model incorporates assumptions that market participants would use in estimating future net servicing income, such as adequate compensation for servicing, the discount rate, the custodial earnings rate, ancillary income, prepayment speeds and default rates and losses, with the prepayment speed and discount rate being the most sensitive assumptions. For 2023, there was a net gain on loan servicing asset revaluation of \$4.9 million compared to a net loss of \$16.6 million for 2022, resulting in a positive change of \$21.5 million, or 129.5%. The increase in the valuation of the servicing asset compared to 2022 was principally the result of the third quarter of 2023 change in valuation techniques used to estimate the fair value of servicing rights with a one-time positive adjustment of \$13.7 million as a result of rising interest rates and their impacts on market conditions.

Net Gains on Sales of Loans: For 2023, net gains on sales of loans increased \$3.3 million, or 7.6%, compared to 2022. The volume of guaranteed loans sold increased \$296.7 million, or 51.1%, over 2022 while the average net gain on loan sale premium decreased from 108% to 105% in 2022 and 2023, respectively. The increase in net gains on sales of loans over 2022 was principally the result of higher loan sale volume.

Net (Loss) Gain on Loans Accounted for Under the Fair Value Option: For 2023, the Company had a net loss on loans accounted for under the fair value option of \$3.5 million compared to a net gain of \$1.0 million for 2022, a negative change of \$4.6 million. The carrying amount of loans accounted for under the fair value option at December 31, 2023 and 2022 was \$388.0 million (all classified as held for investment) and \$494.5 million (all classified as held for investment), respectively, a decrease of \$106.4 million, or 21.5%. The incremental net loss on loans accounted for under the fair value option compared to both prior periods was largely the result of negative market trends between the comparative periods.

Noninterest Expense

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

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

	Years Ended December 31,			2022/2023 Increase (Decrease)		2021/2022 Increase (Decrease)	
	2023	2022	2021	Amount	Percent	Amount	Percent
Noninterest expense							
Salaries and employee benefits	\$ 175,052	\$ 170,822	\$ 124,932	\$ 4,230	2.5 %	\$ 45,890	36.7 %
Non-employee expenses:							
Travel expense	8,922	8,499	5,809	423	5.0	2,690	46.3
Professional services expense	7,737	11,737	15,135	(4,000)	(34.1)	(3,398)	(22.5)
Advertising and marketing expense	12,559	10,543	5,002	2,016	19.1	5,541	110.8
Occupancy expense	8,490	11,088	8,423	(2,598)	(23.4)	2,665	31.6
Technology expense	31,858	28,434	22,648	3,424	12.0	5,786	25.5
Equipment expense	14,997	15,120	14,869	(123)	(0.8)	251	1.7
Other loan origination and maintenance expense	14,804	13,168	13,529	1,636	12.4	(361)	(2.7)
Renewable energy tax credit investment impairment	14,644	16,217	3,187	(1,573)	(9.7)	13,030	408.8
FDIC insurance	16,670	9,756	7,070	6,914	70.9	2,686	38.0
Contributions and donations	—	6,462	2,331	(6,462)	(100.0)	4,131	177.2
Other expense	17,152	12,380	8,052	4,772	38.5	4,328	53.8
Total non-employee expenses	147,833	143,404	106,055	4,429	3.1	37,349	35.2
Total noninterest expense	\$ 322,885	\$ 314,226	\$ 230,987	\$ 8,659	2.8 %	\$ 83,239	36.0 %

Total noninterest expense for 2023 increased \$8.7 million, or 2.8%, compared to 2022. The increase in noninterest expense was predominately driven by the following items.

Salaries and employee benefits: Total personnel expense for 2023 increased by \$4.2 million, or 2.5%, compared to 2022. The increase in salaries and employee benefits was principally related to continued investment in human resources to support strategic and growth initiatives. Total full-time equivalent employees decreased from 970 at December 31, 2022 to 952 at December 31, 2023, however, average full-time equivalent employees for 2023 was 966 as compared to 887 for 2022. Salaries and employee benefits expense included \$17.9 million of stock-based compensation for 2023, compared to \$20.3 million for 2022. Expenses related to the employee stock purchase program, stock grants, stock option compensation and restricted stock expense are all considered stock-based compensation.

Professional services expense: Professional services expense decreased \$4.0 million, or 34.1%, compared to 2022. This decrease was due to lower levels of legal fees combined with an insurance recovery of \$1.3 million in 2023 related to previously expensed legal fees.

Technology expense: Technology expense increased \$3.4 million, or 12.0%, compared to 2022. This increase was primarily related to enhanced investments in the Company's technology resources.

FDIC insurance: FDIC insurance increased \$6.9 million, or 70.9%, compared to 2022. This is largely the result of a one-time increase in insurance assessment rates effective in 2023, combined with the ongoing growth in total consolidated assets at the Company.

Contributions and donations: For 2023, contributions and donations expense decreased \$6.5 million, or 100.0%, compared to 2022. This decrease is principally related to a special charitable donation during the second quarter of 2022 of \$5.0 million made in connection with the earlier discussed Finxact gain.

Other expense: Other expenses increased \$4.8 million, or 38.5%, compared to 2022. This increase is largely related to \$2.5 million in increased levels of provision for unfunded commitment reserves, principally a product of refinements in estimation assumptions in the first quarter of 2023.

Income Tax Expense

Income tax expense and related effective tax rate in 2023 was \$8.9 million and 10.8% compared to \$34.1 million and 16.2% in 2022. The Company's renewable energy investments generated federal investment tax credits of \$16.4 million in both 2023 and 2022, which reduced its effective tax rate for both years. The lower effective tax rate of 10.8% for 2023 was principally due lower pretax income in 2023 relative to consistent levels of renewable energy tax credits in both 2023 and 2022.

Results of Segment Operations

The Company's operations are managed along two primary operating segments: Banking and Fintech. A description of each segment and the methodologies used to measure financial performance is described in Note 15. Segments in the accompanying notes to the consolidated financial statements. Net income (loss) by operating segment is presented below:

	Years ended December 31,		
	2023	2022	2021
Banking	\$ 82,796	\$ 71,937	\$ 145,662
Fintech	(3,156)	109,692	27,667
Other	(5,742)	(5,421)	(6,334)
Consolidated net income	<u>\$ 73,898</u>	<u>\$ 176,208</u>	<u>\$ 166,995</u>

Banking

Net income increased \$10.9 million, or 15.1%, compared to 2022. Key factors influencing these changes are discussed below.

For 2023, net interest income increased \$16.9 million, or 5.1%, compared to 2022. See above section captioned "Net Interest Income and Margin" as it is principally related to the Banking segment.

The provision for loan and lease credit losses for 2023 increased \$10.4 million, or 25.4%, over 2022. See the analysis of provision for loan and lease credit losses included in the above section captioned "Provision for Loan and Lease Credit Losses" as it is entirely related to the Banking segment.

Noninterest income increased \$20.5 million, or 25.4%, over 2022. This increase was principally driven by an incremental net gain on the loan servicing asset revaluation. Also contributing to the increase was higher net gains on sales of loans. Partially offsetting the increased noninterest income was incremental net losses on loans accounted for under the fair value option. See the analysis of these categories of noninterest income included in the above section captioned "Noninterest Income" for additional discussion.

Noninterest expense increased \$6.8 million, or 2.3%, compared to 2022. See the analysis of these categories of noninterest expense included in the above section captioned "Noninterest Expense" for additional discussion.

Income tax expense increased \$9.3 million compared to 2022. This was primarily the result of a higher level of pretax income.

Fintech

Net income decreased by \$112.8 million over 2022. The decrease was principally due to equity method investment gains of \$28.4 million and \$120.8 million from the sale of Payrailz and Finxact, respectively.

Income tax expense decreased \$35.0 million, compared to 2022. This decrease is a product of the above discussed decrease in Fintech segment income.

Discussion and Analysis of Financial Condition

Total assets at December 31, 2023 were \$11.27 billion, an increase of \$1.42 billion, or 14.4%, compared to total assets of \$9.86 billion at December 31, 2022. The growth in total assets was principally driven by the following:

- Cash and cash equivalents, comprised of cash and due from banks and federal funds sold, combined with investment securities available-for-sale was \$1.71 billion at December 31, 2023, an increase of \$277.3 million, or 19.4%, compared to \$1.43 billion at December 31, 2022. This increase reflects growing deposit levels combined with maintenance of the Company's targeted liquidity profile.
- Growth in total loans and leases held for investment and held for sale of \$1.12 billion resulting from strong origination activity in 2023 of \$3.95 billion.

Total deposits were \$10.28 billion at December 31, 2023, an increase of \$1.39 billion, or 15.6%, from \$8.88 billion at December 31, 2022. The increase in total deposits from the prior period was to support growth in the loan and lease portfolio combined with strong deposit inflows.

Borrowings decreased to \$23.4 million at December 31, 2023 from \$83.2 million at December 31, 2022. This decrease was principally due to paying off the Company's Fed Funds line of credit in the first quarter of 2023. See Note 8. Borrowings in the accompanying notes to the consolidated financial statements for a discussion of current sources of available debt capacity.

Shareholders' equity at December 31, 2023 was \$902.7 million as compared to \$811.0 million at December 31, 2022. The book value per share was \$20.23 at December 31, 2023 compared to \$18.41 at December 31, 2022. Average equity to average assets was 8.0% for the year ended December 31, 2023 compared to 9.0% for the year ended December 31, 2022. The increase in shareholders' equity for 2023 was principally the result of \$73.9 million in net income and stock-based compensation expense of \$17.9 million and other comprehensive income associated with positive market impacts on the Company's available-for-sale investment portfolio of \$7.6 million.

Regulatory Impact of Asset Growth

General. In the first quarter of 2023, the Company and the Bank each first exceeded \$10 billion in total assets. As of December 31, 2023, the Company and the Bank each had total assets of \$11.27 billion and \$11.21 billion, respectively, ending their first four consecutive quarters of reported assets in excess of \$10 billion. The Dodd-Frank Act and its implementing regulations impose various additional requirements on bank holding companies and banks with \$10 billion or more in total consolidated assets.

Consumer Financial Laws. Under the Dodd-Frank Act, the Consumer Financial Protection Bureau (CFPB) has near-exclusive supervision authority, including examination authority, to assess compliance with federal consumer financial laws for a bank and its affiliates if the bank has total assets of more than \$10 billion. This provision becomes applicable to a bank following the fourth consecutive quarter where the total assets of the bank, as reported in its quarterly Call Report, exceed \$10 billion and afterwards remains applicable to the bank unless the bank has reported total assets of \$10 billion or less in its quarterly Call Report for four consecutive quarters. This provision is expected to be applicable to the Bank in the first quarter of 2024.

Deposit Insurance Assessments. Also under the Dodd-Frank Act, the DIF reserve ratio was increased from 1.15 percent to 1.35 percent and the FDIC is required, in setting deposit insurance assessments, to offset the effect of the increase on institutions with assets of less than \$10 billion, which results in institutions with assets greater than \$10 billion paying higher assessments. In addition, following the fourth consecutive quarter where the total assets of a bank exceeds \$10 billion, as reported in its quarterly Call Report, the FDIC utilizes a different method for determining deposit insurance assessments. This large bank method is based on a bank's ability to withstand asset- and funding-related stress, its regulatory ratings, and potential losses to the FDIC in the event of the bank's failure, subject to discretionary adjustments by the FDIC. The Bank expects to become subject to the large bank method for determining its deposit insurance assessments in 2024.

Volcker Rule. Under provisions of the Dodd-Frank Act referred to as the “Volcker Rule,” certain limitations are placed on the ability of insured depository institutions and their affiliates to engage in sponsoring, investing in and transacting with certain investment funds, known as “covered funds” under the rule. There are a number of exclusions from the definition of “covered funds,” including for investments in Small Business Investment Companies, or SBICs, and certain qualifying venture capital funds. The Volcker Rule also places restrictions on proprietary trading, which could impact certain hedging activities.

Limits on Interchange Fees. The Durbin Amendment to the Dodd-Frank Act gave the Federal Reserve Board the authority to establish rules regarding interchange fees charged for electronic debit transactions by a payment card issuer that, together with its affiliates, has assets of \$10 billion or more, as of December 31 of the preceding calendar year, and to enforce a new statutory requirement that such fees be reasonable and proportional to the actual cost of a transaction to the issuer. The Federal Reserve Board has adopted rules under this provision that limit the swipe fees that a debit card issuer can charge a merchant for a transaction to the sum of 21 cents and five basis points times the value of the transaction, plus up to one cent for fraud prevention costs. The Bank exceeded \$10 billion in assets at December 31, 2023. This will trigger a reduction of annual pre-tax income from debit card interchange fees beginning July 1, 2024. Additional information regarding the Durbin Amendment is presented in Item 1A. Risk Factors.

Loans Held for Sale & Serviced Portfolio

Any loan or portion of a loan that the Company has the intent and ability to sell is classified as held for sale. The average age of the held for sale portfolio as of December 31, 2023 was 10.9 months from origination date. Approximately 12.1% of the current held for sale portfolio is older than two years. The majority of held for sale loans over one year old are composed of construction loans or other loans that have yet to fully fund. Construction loans typically have extended build out periods that inherently result in longer lead times between origination and the ultimate sale date. Approximately 19.8% of the held for sale portfolio is aged between one and two years.

As of December 31, 2023 and 2022, the cumulative total outstanding balance of loans sold since May 2007 totaled \$4.24 billion and \$3.48 billion, respectively. The Company generally continues to service loans after the date of sale. As of December 31, 2023 and 2022, the total outstanding balance of loans and leases, including those serviced for others, was \$13.28 billion and \$11.38 billion, respectively.

Loan and Lease Maturity

As of December 31, 2023, \$10.60 billion, or 79.8%, of the total outstanding balance of loans and leases, including those at fair value and those serviced for others, were variable rate loans that adjust at specified dates based on the prime lending rate or other variable indices. As of December 31, 2023, \$5.97 billion, or 45.0%, of total outstanding balance of loans and leases, including those at fair value and those serviced for others, were variable rate loans that adjust on either a calendar monthly or calendar quarterly basis using the prime lending rate or other variable indices.

At December 31, 2023, 81.5%, or \$7.38 billion, of the combined held for sale and held for investment loan and lease portfolio, including those at fair value, were composed of variable rate loans.

At December 31, 2023, \$2.70 billion, or 31.2%, of loans held for investment, including those at fair value, matures in less than five years. Loans and leases maturing in greater than five years total \$5.96 billion of the total \$8.66 billion. The variable rate portion of the total held for investment loans and leases, excluding PPP loans, is 81.4%, which reflects the Company's strategy to minimize interest rate risk through the use of variable rate products.

At December 31, 2023					
Remaining Contractual Maturity of Total Held for Investment Loans and Leases					
	One Year or Less	After One Year and Through Five Years	After Five Years and Through Fifteen Years	After Fifteen Years	Total ⁽¹⁾
Fixed rate loans and leases:					
Commercial & Industrial					
Small Business Banking	\$ 2,213	\$ 154,221	\$ 217,652	\$ 2,925	\$ 377,011
Specialty Lending	11,377	321,002	5,213	3,783	341,375
Energy & Infrastructure	19,057	10,249	69,164	111,982	210,452
Paycheck Protection Program	—	4,853	742	—	5,595
Total	32,647	490,325	292,771	118,690	934,433
Construction & Development					
Small Business Banking	145	4,989	8	10,317	15,459
Specialty Lending	—	5,256	—	—	5,256
Total	145	10,245	8	10,317	20,715
Commercial Real Estate					
Small Business Banking	6,500	70,563	30,491	141,115	248,669
Specialty Lending	—	83,439	1,398	5,549	90,386
Energy & Infrastructure	—	14,742	—	116	14,858
Total	6,500	168,744	31,889	146,780	353,913
Commercial Land					
Small Business Banking	9,504	186,912	75,820	35,441	307,677
Total	9,504	186,912	75,820	35,441	307,677
Total fixed rate loans and leases	48,796	856,226	400,488	311,228	1,616,738
Variable rate loans and leases:					
Commercial & Industrial					
Small Business Banking	8,996	148,099	1,657,019	85,926	1,900,040
Specialty Lending	109,294	620,555	67,536	562	797,947
Energy & Infrastructure	186,128	30,222	156,533	312,608	685,491
Total	304,418	798,876	1,881,088	399,096	3,383,478
Construction & Development					
Small Business Banking	6,167	11,103	23,518	358,846	399,634
Specialty Lending	—	42,163	—	—	42,163
Energy & Infrastructure	—	7,541	—	—	7,541
Total	6,167	60,807	23,518	358,846	449,338
Commercial Real Estate					
Small Business Banking	30,437	77,903	342,783	1,893,143	2,344,266
Specialty Lending	88,019	340,231	5,109	—	433,359
Energy & Infrastructure	—	56,416	32,023	76,138	164,577
Total	118,456	474,550	379,915	1,969,281	2,942,202
Commercial Land					
Small Business Banking	4,172	27,165	99,278	133,494	264,109
Total	4,172	27,165	99,278	133,494	264,109
Total variable rate loans and leases	433,213	1,361,398	2,383,799	2,860,717	7,039,127
Total held for investment loans and leases	\$ 482,009	\$ 2,217,624	\$ 2,784,287	\$ 3,171,945	\$ 8,655,865

(1) Excludes retained loan discount and net deferred costs.

Commercial Real Estate

Commercial real estate loans as indicated by the FDIC include loans secured by the following: construction, land development, multifamily property and nonfarm, nonresidential real property. The following table provides information with respect to commercial real estate loans as of December 31, 2023.

	Guaranteed	Unguaranteed	Total ⁽¹⁾
Held for Investment Loans:			
Owner Occupied			
Small Business Banking	\$ 1,145,306	\$ 989,029	\$ 2,134,335
Specialty Lending	—	87,922	87,922
Energy & Infrastructure	9,517	20,584	30,101
Total	1,154,823	1,097,535	2,252,358
Non-Owner Occupied			
Small Business Banking	370,304	380,028	750,332
Specialty Lending	—	482,146	482,146
Energy & Infrastructure	35,416	122,899	158,315
Total	405,720	985,073	1,390,793
Total Held for Investment Commercial Real Estate	\$ 1,560,543	\$ 2,082,608	\$ 3,643,151
Held for Sale Loans:			
Owner Occupied			
Small Business Banking	\$ 62,242	\$ —	\$ 62,242
Total	62,242	—	62,242
Non-Owner Occupied			
Small Business Banking	121,399	—	121,399
Energy & Infrastructure	891	—	891
Total	122,290	—	122,290
Total Held for Sale Commercial Real Estate	\$ 184,532	\$ —	\$ 184,532
Total Commercial Real Estate Loans	\$ 1,745,075	\$ 2,082,608	\$ 3,827,683
% of Total Commercial Real Estate Loans	45.6 %	54.4 %	100.0 %

(1) Excludes retained loan discount and net deferred costs.

Asset Quality

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

Nonperforming Assets

The Bank places loans and leases on nonaccrual status when they become 90 days past due as to principal or interest payments, or prior to that if management has determined based upon current information available to them that the timely collection of principal or interest is not probable. When a loan or lease is placed on nonaccrual status, any interest previously accrued as income but not actually collected is reversed and recorded as a reduction of loan or lease interest and fee income. Typically, collections of interest and principal received on a nonaccrual loan or lease are applied to the outstanding principal as determined at the time of collection of the loan or lease. The Company adopted ASU 2022-02 on January 1, 2023. Accordingly, the prior period discussed below has been adjusted to exclude previously disclosed troubled debt restructurings for comparative purposes. See Note 1. Organization and Summary of Significant Accounting Policies in the accompanying notes to the consolidated financial statements for additional information about the adoption of ASU 2022-02.

Total nonperforming assets, including loans measured at fair value, at December 31, 2023 were \$192.2 million, which represented a \$71.8 million, or 59.6%, increase from December 31, 2022. These nonperforming assets, at December 31, 2023 were comprised of \$185.7 million in nonaccrual loans and leases and \$6.5 million in foreclosed assets. Of the \$192.2 million of nonperforming assets, \$141.0 million carried a government guarantee, leaving an unguaranteed exposure of \$51.2 million in total nonperforming assets at December 31, 2023. This represents an increase of \$25.1 million, or 96.6%, from an unguaranteed exposure of \$26.0 million at December 31, 2022.

The following table provides information with respect to nonperforming assets, excluding loans measured at fair value, at the dates indicated.

	2023 ⁽¹⁾	2022 ⁽¹⁾
Nonaccrual loans and leases:		
Total nonperforming loans and leases (all on nonaccrual)	\$ 134,963	\$ 73,392
Foreclosed assets	6,481	—
Total nonperforming assets	\$ 141,444	\$ 73,392
Allowance for credit losses on loans and leases	\$ 125,840	\$ 96,566
Total nonperforming loans and leases to total loans and leases held for investment	1.64 %	1.07 %
Total nonperforming loans and leases to total assets	1.24 %	0.78 %
Allowance for credit losses on loans and leases to loans and leases held for investment	1.53 %	1.41 %
Allowance for credit losses on loans and leases to total nonperforming loans and leases	93.24 %	131.58 %

(1) Excludes loans measured at fair value.

	2023 ⁽¹⁾	2022 ⁽¹⁾
Nonaccrual loans and leases guaranteed by U.S. government:		
Total nonperforming loans and leases guaranteed by the U.S. government (all on nonaccrual)	\$ 95,678	\$ 54,608
Foreclosed assets guaranteed by the U.S. government	3,670	—
Total nonperforming assets guaranteed by the U.S. government	\$ 99,348	\$ 54,608
Allowance for credit losses on loans and leases	\$ 125,840	\$ 96,566
Total nonperforming loans and leases not guaranteed by the U.S. government to total held for investment loans and leases	0.48 %	0.27 %
Total nonperforming loans and leases not guaranteed by the U.S. government to total assets	0.36 %	0.20 %
Allowance for credit losses on loans and leases to total nonperforming loans and leases not guaranteed by the U.S. government	320.33 %	514.09 %

(1) Excludes loans measured at fair value.

Nonperforming assets, excluding loans measured at fair value, at December 31, 2023 were \$141.4 million, which represented a \$68.1 million, or 92.7%, increase from December 31, 2022. These nonperforming assets, at December 31, 2023 were comprised of \$135.0 million in nonaccrual loans and leases and \$6.5 million in foreclosed assets. Of the \$141.4 million of nonperforming assets, \$99.3 million carried a government guarantee, leaving an unguaranteed exposure of \$42.1 million in total nonperforming assets at December 31, 2023. This represents an increase of \$23.3 million, or 124.1%, from an unguaranteed exposure of \$18.8 million at December 31, 2022.

See the below discussion related to the change in potential problem and impaired loans and leases for management's overall observations regarding the change in total nonperforming loans and leases.

As a percentage of the Bank's total capital, nonperforming loans and leases, excluding loans measured at fair value, represented 14.6% at December 31, 2023, compared to 9.0% at December 31, 2022. Adjusting the ratio to include only the unguaranteed portion of nonperforming loans and leases at historical cost to reflect management's belief that the greater magnitude of risk resides in this portion, the ratio at December 31, 2023 and 2022 was 4.3% and 2.3%, respectively.

As of December 31, 2023, and December 31, 2022, potential problem (also referred to as criticized) and classified loans and leases, excluding loans measured at fair value, totaled \$785.2 million and \$424.7 million, respectively. The following is a discussion of these loans and leases. Risk Grades 5 through 8 represent the spectrum of criticized and classified loans and leases. For a complete description of the risk grading system, see “Credit Quality Indicators” in Note 3 to the notes to consolidated financial statements. At December 31, 2023, the portion of criticized and classified loans and leases guaranteed by the SBA or USDA totaled \$344.8 million and total portfolio unguaranteed exposure risk was \$440.3 million, or 8.3% of total held for investment unguaranteed exposure carried at historical cost. This compares to the December 31, 2022 portion of criticized and classified loans and leases guaranteed by the SBA or USDA which totaled \$195.8 million and total portfolio unguaranteed exposure risk was \$228.9 million, or 5.5% of total held for investment unguaranteed exposure carried at historical cost.

As of December 31, 2023 and December 31, 2022, loans and leases carried at historical cost within the following verticals comprise the largest portion of the total potential problem and classified loans and leases:

As of December 31, 2023		As of December 31, 2022	
Vertical	% of Criticized and Classified Loans and Leases	Vertical	% of Criticized and Classified Loans and Leases
Senior Housing	16.5%	Wine & Craft Beverage	11.5%
Bioenergy	14.4%	General Lending	10.3%
General Lending	12.2%	Senior Housing	10.2%
Search Fund Lending	8.6%	Search Fund Lending	7.8%
Wine & Craft Beverage	5.6%	Healthcare	6.4%
Healthcare	3.9%	Hotels	5.9%
Hotels	3.3%	Fitness Centers	5.1%
Self Storage	3.3%	Agriculture	4.5%
Senior Care	3.2%	Senior Care	4.0%
% of Total Criticized and Classified Loans	71.0%	% of Total Criticized and Classified Loans	65.7%

Of the above listed verticals, Senior Housing is within the Company’s Specialty Lending division while Hotels and Bioenergy are within the Energy & Infrastructure division, the remainder of the above listed verticals are within the Small Business Banking division. The majority of the \$360.5 million increase in potential problem and classified loans and leases in 2023 was comprised of increased levels of Risk Grade 5 loans and leases, as discussed below. The Company believes that its underwriting and credit quality standards have remained high and continues to consider changing economic conditions in a rising interest rate environment.

Loans and leases that experience insignificant payment delays and payment shortfalls are generally not individually evaluated for the purpose of estimating the allowance for credit losses. The Bank generally considers an “insignificant period of time” from payment delays to be a period of 90 days or less. The Bank would consider a modification for a customer experiencing what is expected to be a short-term event that has temporarily impacted cash flow. This could be due, among other reasons, to illness, weather, impact from a one-time expense, slower than expected start-up, construction issues or other short-term issues. Credit personnel will review the request to determine if the customer is stressed and how the event has impacted the ability of the customer to repay the loan or lease long term. At December 31, 2023, the Company had a total of \$37.2 million in loans modified in 2023 to borrowers experiencing financial difficulty, all of which remained current with \$14.6 million on principal payment deferral.

Management endeavors to be proactive in its approach to identify and resolve problem loans and leases and is focused on working with the borrowers and guarantors of these loans and leases to provide loan and lease modifications when warranted. Management implements a proactive approach to identifying and classifying loans and leases as special mention (also referred to as criticized), Risk Grade 5. At December 31, 2023, and December 31, 2022, Risk Grade 5 loans and leases, excluding loans measured at fair value, totaled \$599.2 million and \$286.5 million, respectively, for a year-over-year increase of \$312.7 million. Relative to total held for investment unguaranteed exposure carried at historical cost at December 31, 2022 and 2023, unguaranteed Risk Grade 5 loans and leases increased from 4.1% to 6.9%, respectively.

The largest year-over-year changes in Risk Grade 5 loans and leases carried at historical cost were within the following verticals:

December 31, 2023 vs. 2022 Increase (Decrease)		
Vertical	\$	%
Bioenergy	\$ 113,065	37.9 %
Senior Housing	73,722	24.7
General Lending	25,852	8.7
Search Fund Lending	25,004	8.4
Self Storage	16,045	5.4
Government Contracting	15,301	5.1
Asset Based Lending	14,677	4.9
Hotels	9,709	3.3
Senior Care	9,527	3.2
Health Care	8,153	2.7
Broadband	(12,352)	(4.1)
Wine Craft Beverage	(11,927)	(4.0)
Entertainment Centers	(11,435)	(3.8)
Total of largest changes in RG 5 loans and leases	<u>\$ 275,341</u>	<u>92.4%</u>

The increase in Risk Grade 5 loans and leases, exclusive of loans measured at fair value, during 2023 was principally confined to ten verticals, as reflected above. The increase in Risk Grade 5 loans in 2023 was largely a result of softer than expected starts for new projects in certain verticals due to delays in both construction completion and ramp up time, stemming from downstream effects of pandemic-related impacts. Of the above listed verticals, Senior Housing, Asset-Based Lending and Government Contracting are within the Company's Specialty Lending division while Hotels and Bioenergy are within the Energy & Infrastructure division, the remainder of the above listed verticals are within the Small Business Banking division.

At December 31, 2023, approximately 99.3% of loans and leases classified as Risk Grade 5 are performing with no relationships having payments past due more than 30 days. While the level of nonperforming assets fluctuates in response to changing economic and market conditions, in light of the relative size and composition of the loan and lease portfolio and management's degree of success in resolving problem assets, management believes that a proactive approach to early identification and intervention is critical to successfully managing a small business loan portfolio. As government payment assistance began to expire toward the end of 2020, borrowers with continuing difficulties arising from the pandemic were provided additional relief through payment deferrals. At December 31, 2023, the Company had \$11.0 million in unguaranteed loans on SBA payment assistance.

Allowance for Credit Losses on Loans and Leases

The ACL of \$96.6 million at December 31, 2022, increased by \$29.3 million, or 30.3%, to \$125.8 million at December 31, 2023. The ACL as a percentage of loans and leases held for investment at historical cost amounted to 1.5% and 1.4% at December 31, 2023 and 2022, respectively. The increase in the ACL during 2023 was primarily due to significant loan growth combined with charge-off related impacts, as addressed more fully in the above section captioned "Provision for Loan and Lease Credit Losses" in "Results of Operations."

Actual past due held for investment loans and leases, inclusive of loans measured at fair value, have increased by \$65.7 million since December 31, 2022. Total loans and leases 90 or more days past due increased \$68.2 million, or 120.6%, compared to December 31, 2022. This increase was comprised of a \$24.0 million increase in unguaranteed exposure combined with a \$44.2 million increase in the guaranteed portion of past due loans compared to December 31, 2022. At December 31, 2023 and December 31, 2022, total held for investment unguaranteed loans and leases past due as a percentage of total held for investment unguaranteed loans and leases, inclusive of loans measured at fair value, was 0.8% and 0.7%, respectively. Total unguaranteed loans and leases past due were comprised of \$37.6 million carried at historical cost, an increase of \$16.4 million, and \$9.8 million measured at fair value, an increase of \$237 thousand, as of December 31, 2023 compared to December 31, 2022. Management continues to actively monitor and work to improve asset quality. Management believes the ACL of \$125.8 million at December 31, 2023 is appropriate in light of the risk inherent in the loan and lease portfolio. Management's judgments are based on numerous assumptions about current and expected events that it believes to be reasonable, but which may or may not prove to be accurate. Accordingly, no assurance can be given that management's ongoing evaluation of the loan and lease portfolio in light of changing economic conditions and other relevant circumstances will not require significant future additions to the ACL, thus adversely affecting the Company's operating results. Additional information on the ACL is presented in Note 3. Loans and Leases Held for Investment and Credit Quality of the consolidated financial statements in this report.

The following table sets forth the breakdown of the allowance for credit losses on loans and leases carried at historical cost by category at the dates indicated.

	2023				2022			
	Allowance	Total Loans and Leases ⁽¹⁾	% of Total Allowance	% of Total Loans and Leases ⁽¹⁾	Allowance	Total Loans and Leases ⁽¹⁾	% of Total Allowance	% of Total Loans and Leases ⁽¹⁾
Commercial & Industrial								
Small Business Banking	\$ 49,120	\$ 2,125,163	39.0 %	25.7 %	\$ 41,481	\$ 2,025,983	43.0 %	29.6 %
Specialty Lending	25,807	1,131,493	20.5	13.7	17,216	754,271	17.8	11.0
Energy & Infrastructure	12,646	849,757	10.0	10.3	6,278	423,529	6.5	6.2
Paycheck Protection Program	8	5,595	—	0.1	20	13,134	—	0.2
Total	87,581	4,112,008	69.6	49.7	64,995	3,216,917	67.3	47.0
Construction & Development								
Small Business Banking	3,320	415,094	2.6	5.0	2,860	472,743	3.0	6.9
Specialty Lending	1,207	47,419	1.0	0.6	2,038	104,069	2.1	1.5
Energy & Infrastructure	190	7,541	0.2	0.1	203	13,753	0.2	0.2
Total	4,717	470,054	3.7	5.7	5,101	590,565	5.3	8.6
Commercial Real Estate								
Small Business Banking	14,743	2,465,576	11.7	29.8	14,608	2,167,515	15.1	31.6
Specialty Lending	10,754	523,744	8.5	6.3	4,233	306,785	4.4	4.5
Energy & Infrastructure	3,367	161,685	2.7	2.0	4,060	139,778	4.2	2.0
Total	28,864	3,151,005	22.9	38.1	22,901	2,614,078	23.7	38.1
Commercial Land								
Small Business Banking	4,678	534,762	3.7	6.5	3,569	432,594	3.7	6.3
Total	4,678	534,762	3.7	6.5	3,569	432,594	3.7	6.3
Total	\$ 125,840	\$ 8,267,829	100.0 %	100.0 %	\$ 96,566	\$ 6,854,154	100.0 %	100.0 %

(1) Excludes loans measured at fair value.

Analysis of Loan and Lease Loss Experience. The following table sets forth an analysis of net charge-offs for loans and leases carried at historical cost to average total loans and leases, carried at historical cost, by category for the years indicated.

	2023			2022			2021		
	Net Charge-offs ⁽¹⁾	Average Total Loans & Leases ⁽¹⁾⁽²⁾	% of Average Total Loans & Leases ⁽¹⁾⁽²⁾	Net Charge-offs ⁽¹⁾	Average Total Loans & Leases ⁽¹⁾⁽²⁾	% of Average Total Loans & Leases ⁽¹⁾⁽²⁾	Net Charge-offs ⁽¹⁾	Average Total Loans & Leases ⁽¹⁾⁽²⁾	% of Average Total Loans & Leases ⁽¹⁾⁽²⁾
Commercial & Industrial									
Small Business Banking	\$ 13,705	\$2,086,469	0.7 %	\$ 5,423	\$1,634,074	0.3 %	\$ 2,740	\$1,073,328	0.3 %
Specialty Lending	7,966	1,002,418	0.8	1,383	580,940	0.2	—	247,856	—
Energy & Infrastructure	—	564,070	—	411	350,910	0.1	—	167,521	—
Paycheck Protection Program	—	8,283	—	5	81,250	—	—	939,205	—
Total	21,671	3,661,240	0.6	7,222	2,647,174	0.3	2,740	2,427,910	0.1
Construction & Development									
Small Business Banking	—	274,777	—	(3)	271,596	—	262	169,530	0.2
Specialty Lending	—	41,230	—	—	72,996	—	—	19,120	—
Energy & Infrastructure	—	6,914	—	—	12,751	—	—	45,639	—
Total	—	322,921	—	(3)	357,343	—	262	234,289	0.1
Commercial Real Estate									
Small Business Banking	1,416	2,463,238	0.1	489	1,904,876	—	664	1,403,403	—
Specialty Lending	—	448,958	—	—	214,760	—	254	92,888	0.3
Energy & Infrastructure	(1,714)	134,959	(1.3)	(388)	120,783	(0.3)	—	127,456	—
Total	(298)	3,047,155	—	101	2,240,419	—	918	1,623,747	0.1
Commercial Land									
Small Business Banking	—	505,692	—	641	422,886	0.2	12	377,967	—
Total	—	505,692	—	641	422,886	0.2	12	377,967	—
Total	\$ 21,373	\$7,537,008	0.3 %	\$ 7,961	\$5,667,822	0.1 %	\$ 3,932	\$4,663,913	0.1 %

(1) Excludes loans measured at fair value.

(2) Average loans and leases held for investment, at amortized cost.

Investment Securities

Investment securities totaled \$1.13 billion at December 31, 2023, an increase of \$111.4 million, or 11.0%, compared to \$1.01 billion at December 31, 2022. The increase in the investment portfolio for 2023 was to support earnings through additional yield compared to cash alternatives, continue to provide a contingent funding source and act as a mechanism to manage the Company's interest rate risk. This also included purchases of \$206.9 million in mortgage-backed securities, including \$14.7 million for purposes of complying with the Community Reinvestment Act and purchases of \$32.1 million in collateralized mortgage obligations to increase yield and duration.

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

At December 31, 2023, the modified duration of the overall available-for-sale securities portfolio was approximately 6.45 years.

The following table sets forth the stated maturities and weighted average yields of investment securities at December 31, 2023. Certain mortgage related securities have adjustable interest rates and will reprice annually within the various maturity ranges. These repricing schedules are not reflected in the tables below.

	Total Amortized Cost	Within One Year		After One to Five Years		After Five to Ten Years		After Ten Years	
		Amortized Cost	Average Yield	Amortized Cost	Average Yield	Amortized Cost	Average Yield	Amortized Cost	Average Yield
U.S. government securities	\$ 17,809	\$ 3,000	3.54 %	\$ 12,430	3.77 %	\$ 2,379	3.11 %	\$ —	— %
Mortgage-backed securities	1,216,624	12,358	4.89	179,740	2.70	240,665	2.79	783,861	2.70
Municipal bonds	3,200	—	—	—	—	3,103	4.50	97	5.22
Other debt securities	—	—	—	—	—	—	—	—	—
Total securities	\$1,237,633	\$ 15,358	4.62 %	\$ 192,170	2.67 %	\$ 246,147	2.82 %	\$ 783,958	2.70 %

At December 31, 2023 and December 31, 2022, the Company had 98.3% of its total investment securities portfolio in mortgage-backed securities. The Company has continued to purchase mortgage-backed securities in order to obtain a favorable yield versus cash alternatives while still maintaining a low risk profile within the investment portfolio.

Deposits

The following table sets forth the composition of deposits.

	2023		2022		2021	
	Total	Percent	Total	Percent	Total	Percent
<i>Period end:</i>						
Noninterest-bearing demand deposits	\$ 259,270	2.5 %	\$ 194,100	2.2 %	\$ 89,279	1.3 %
Interest-bearing deposits:						
Interest-bearing checking	301,006	2.9	—	—	—	—
Money market	135,551	1.3	128,443	1.4	105,628	1.5
Savings	4,497,376	43.8	4,096,576	46.1	3,507,354	49.3
Time deposits	5,081,816	49.5	4,465,809	50.3	3,409,783	47.9
Total	10,015,749	97.5	8,690,828	97.8	7,022,765	98.7
Total period end deposits	\$ 10,275,019	100.0 %	\$ 8,884,928	100.0 %	\$ 7,112,044	100.0 %
Total uninsured deposits	\$ 1,457,800	14.2 %	\$ 1,563,189	17.6 %	\$ 1,197,057	16.8 %

	2023			2022			2021		
	Total	Percent	Average Rate	Total	Percent	Average Rate	Total	Percent	Average Rate
<i>Average:</i>									
Noninterest-bearing demand deposits	\$ 215,327	2.2 %	— %	\$ 125,062	1.6 %	— %	\$ 77,104	1.2 %	— %
Interest-bearing deposits:									
Interest-bearing checking	231,413	2.4	5.50	—	—	—	76,714	1.2	0.58
Money market	125,279	1.3	0.58	100,684	1.3	0.30	103,078	1.6	0.29
Savings	4,428,306	45.7	3.86	3,903,151	48.9	1.48	3,077,933	47.2	0.54
Time deposits	4,695,161	48.4	3.31	3,849,203	48.2	1.48	\$3,181,591	100.0 %	1.33
Total average deposits	\$9,695,486	100.0 %	3.59 %	\$7,978,100	100.0 %	1.46 %	\$6,516,420	100.0 %	0.92 %

Deposits increased to \$10.28 billion at December 31, 2023 from \$8.88 billion at December 31, 2022, an increase of \$1.39 billion, or 15.6%. This increase was primarily due to the growth of the Company's customer base in the savings and time deposit products, enhanced by a nationwide marketing campaign with attractive rates and additional wholesale funding, to support the significant loan growth in 2023. Noninterest-bearing deposits increased \$65.2 million, or 33.6%, during 2023, and interest-bearing deposits increased \$1.32 billion, or 15.2%, during the same period.

The aggregate amount of time deposits in denominations of \$250 thousand or more at December 31, 2023 was approximately \$695.6 million. Of those deposits, \$255.8 million was uninsured and 97.6% of the uninsured time deposit accounts were scheduled to mature within one year. The maturity profile of uninsured time deposits at December 31, 2023 is as follows:

<u>Maturity Period</u>	<u>Three months or less</u>	<u>More than three months to six months</u>	<u>More than six months to twelve months</u>	<u>More than twelve months</u>
Amount of time deposits in uninsured accounts	\$ 67,828	\$ 97,527	\$ 84,245	\$ 6,204

Borrowings

Total borrowings decreased \$59.8 million at December 31, 2023 from December 31, 2022 as a result of the following:

In March 2021, the Company entered into a 60-month term loan agreement of \$50.0 million with a third party correspondent bank. The loan accrues interest at a fixed rate of 2.95% with a monthly payment sufficient to fully amortize the loan, with all remaining unpaid principal and interest due at maturity on March 30, 2026. The Company paid the Lender a non-refundable \$325 thousand loan origination fee upon signing of the Note that is presented as a direct deduction from the carrying amount of the loan and will be amortized into interest expense over the life of the loan.

In April 2020, the Company entered into the Federal Reserve Bank's PPPLF. Under the PPPLF, advances must be secured by pledges of loans to small businesses originated by the Company under the U.S. Small Business Administration's 7(a) loan program titled the Paycheck Protection Program. The PPPLF accrues interest at thirty-five basis points and matures at various dates equal to the maturity date of the PPPLF collateral pledged to secure the advance, and will be accelerated on and to the extent of any 7(a) loan forgiveness reimbursement by the SBA for any PPPLF collateral or the date of purchase by the SBA from the borrower of any PPPLF collateral. On the maturity date of each advance, the Company repays the advance plus accrued interest. This borrowing was paid in full at September 30, 2022.

In September 2020, the Company renewed a \$50.0 million revolving line of credit originally issued in 2017 with a third party correspondent bank. Subsequently on October 20, 2021, the Company renewed and increased the revolving line of credit from \$50.0 million to \$100.0 million and increased the term from 12 months to 36 months. In September 2023, the Company modified the revolving line of credit and extended the maturity 12 months to a maturity date of October 10, 2026. The line of credit is unsecured and accrues interest at 30-day SOFR plus 1.25%, with an interest rate cap of 6.75% and an interest rate floor of 2.75%. Payments are interest only with all principal and accrued interest due at maturity. The terms of this loan require the Company to maintain minimum capital and debt service coverage ratios. The Company paid the Lender a non-refundable \$750 thousand loan origination fee upon signing of the Note and a non-refundable \$250 thousand renewal fee in September 2023 that will be amortized into interest expense over the life of the loan. The Company made an advance of \$8.0 million on December 20, 2021 and \$12.0 million on March 16, 2022. The Company paid down this balance in full on May 20, 2022 and there is \$100.0 million of available credit remaining at December 31, 2023.

On December 30, 2022, the Company made an advance of \$50.0 million on an overnight Fed Funds line of credit that was unsecured with an interest rate of 4.65% with \$50.0 million of available credit remaining at December 31, 2022. The Company paid down this balance in full on January 3, 2023 and there is \$100.0 million of available credit remaining at December 31, 2023.

Liquidity Management

Liquidity management refers to the ability to meet day-to-day cash flow requirements based primarily on activity in loan and deposit accounts of the Company's customers. Liquidity is immediately available from four major sources: (a) cash on hand and on deposit at other banks; (b) the outstanding balance of federal funds sold; (c) the market value of unpledged investment securities; and (d) availability under lines of credit, FHLB advances, Federal Reserve Bank Term Funding Program and the Federal Reserve Discount Window. A primary tool in the Company's liquidity management process is the utilization of an Outflow Coverage Ratio ("OCR") model to stress outflows in various scenarios with targeted days of liquidity coverage. The OCR model output is then used by management to ensure adequate liquidity sources are available during those future periods. At December 31, 2023, the total amount of these four liquidity source items was \$4.26 billion, or 37.8% of total assets, a decrease of 2.9% of total assets from \$4.01 billion, or 40.7% of total assets, at December 31, 2022.

Loans and other assets are funded primarily by loan sales, wholesale deposits and core deposits. To date, an increasing retail deposit base and a stable amount of brokered deposits have been adequate to meet loan obligations, while maintaining the desired level of immediate liquidity. The Company maintains an investment securities portfolio that is available for both immediate and secondary contingent liquidity purposes, whether via pledging to the Federal Home Loan Bank, Federal Reserve Bank Term Funding Program, or through liquidation. Additionally, the Company maintains a guaranteed loan portfolio that is also a contingent liquidity source, whether via pledging to the Federal Reserve Discount Window or through liquidation.

At December 31, 2023, none of the investment securities portfolio was pledged to secure public deposits or pledged to retail repurchase agreements, leaving \$1.13 billion available to be pledged as collateral.

Contractual Obligations

The Company has entered into significant fixed and determinable contractual obligations for future payments. See the accompanying notes to the consolidated financial statements for expected timing of payments as of December 31, 2023. These include operating leases (Note 4. Leases), time deposits with stated maturity dates (Note 7. Deposits) and borrowings (Note 8. Borrowings). As of December 31, 2023, the Company also has \$301.0 million in brokered deposits with \$75.2 million scheduled to mature in less than a year and \$225.8 million scheduled to mature within one to three years.

Off-Balance Sheet Arrangements

In the normal course of operations, the Company engages in a variety of financial transactions that, in accordance with GAAP, are not recorded in the consolidated financial statements. These transactions involve, to varying degrees, elements of credit, interest rate and liquidity risk. Such transactions are used primarily to manage customers' requests for funding and take the form of commitments to extend credit and standby letters of credit. In 2022, the Company entered into airplane purchase agreement commitments of which one airplane was placed in service in 2023 and one airplane purchase agreement commitment is outstanding as of December 31, 2023. The Company is also in the process of constructing a new facility to accommodate expansion of its main campus. For more information, see Note 11. Commitments and Contingencies in the accompanying notes to the consolidated financial statements.

Asset/Liability Management and Interest Rate Sensitivity

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

Capital

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

Capital amounts and ratios as of December 31, 2023, 2022 and 2021 are presented in the table below.

	Actual		Minimum Capital Requirement		Minimum To Be Well Capitalized Under Prompt Corrective Action Provisions ⁽¹⁾	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
Consolidated - December 31, 2023						
Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 960,433	11.73 %	\$ 368,549	4.50 %	N/A	N/A
Total Capital (to Risk-Weighted Assets)	\$ 1,063,157	12.98 %	\$ 655,198	8.00 %	N/A	N/A
Tier 1 Capital (to Risk-Weighted Assets)	\$ 960,433	11.73 %	\$ 491,399	6.00 %	N/A	N/A
Tier 1 Capital (to Average Assets)	\$ 960,433	8.58 %	\$ 447,561	4.00 %	N/A	N/A
Bank - December 31, 2023						
Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 823,478	10.40 %	\$ 356,426	4.50 %	\$ 514,837	6.50 %
Total Capital (to Risk-Weighted Assets)	\$ 922,876	11.65 %	\$ 633,646	8.00 %	\$ 792,057	10.00 %
Tier 1 Capital (to Risk-Weighted Assets)	\$ 823,478	10.40 %	\$ 475,234	6.00 %	\$ 633,646	8.00 %
Tier 1 Capital (to Average Assets)	\$ 823,478	7.41 %	\$ 444,480	4.00 %	\$ 555,600	5.00 %
Consolidated - December 31, 2022						
Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 888,235	12.47 %	\$ 320,446	4.50 %	N/A	N/A
Total Capital (to Risk-Weighted Assets)	\$ 977,360	13.73 %	\$ 569,681	8.00 %	N/A	N/A
Tier 1 Capital (to Risk-Weighted Assets)	\$ 888,235	12.47 %	\$ 427,261	6.00 %	N/A	N/A
Tier 1 Capital (to Average Assets)	\$ 888,235	9.26 %	\$ 383,499	4.00 %	N/A	N/A
Bank - December 31, 2022						
Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 730,092	10.70 %	\$ 307,179	4.50 %	\$ 443,703	6.50 %
Total Capital (to Risk-Weighted Assets)	\$ 815,577	11.95 %	\$ 546,096	8.00 %	\$ 682,620	10.00 %
Tier 1 Capital (to Risk-Weighted Assets)	\$ 730,092	10.70 %	\$ 409,572	6.00 %	\$ 546,096	8.00 %
Tier 1 Capital (to Average Assets)	\$ 730,092	7.70 %	\$ 379,396	4.00 %	\$ 474,245	5.00 %
Consolidated - December 31, 2021						
Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 689,367	12.38 %	\$ 250,619	4.50 %	N/A	N/A
Total Capital (to Risk-Weighted Assets)	\$ 753,691	13.53 %	\$ 445,544	8.00 %	N/A	N/A
Tier 1 Capital (to Risk-Weighted Assets)	\$ 689,367	12.38 %	\$ 334,158	6.00 %	N/A	N/A
Tier 1 Capital (to Average Assets)	\$ 689,367	8.87 %	\$ 310,902	4.00 %	N/A	N/A
Bank - December 31, 2021						
Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 640,652	12.05 %	\$ 239,201	4.50 %	\$ 345,512	6.50 %
Total Capital (to Risk-Weighted Assets)	\$ 704,976	13.26 %	\$ 425,246	8.00 %	\$ 531,557	10.00 %
Tier 1 Capital (to Risk-Weighted Assets)	\$ 640,652	12.05 %	\$ 318,934	6.00 %	\$ 425,246	8.00 %
Tier 1 Capital (to Average Assets)	\$ 640,652	8.32 %	\$ 307,931	4.00 %	\$ 384,914	5.00 %

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

Critical Accounting Policies and Estimates

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

The Company's accounting policies, including those for the Company's critical accounting estimates are described in detail in Note 1. Organization and Summary of Significant Accounting Policies in the accompanying notes to the consolidated financial statements and are an integral part of the Company's consolidated financial statements. A thorough understanding of these accounting policies is essential when reviewing the Company's reported results of operations and financial position. The Company's most critical accounting estimates are listed below. These estimates require the Company to make difficult, subjective or complex judgments about matters that are inherently uncertain.

Allowance for credit losses (ACL)

The Company's policy is to maintain the ACL at a level to absorb expected credit losses. The loan and lease portfolio is periodically reviewed by management to identify trends and to measure asset quality. Accounting policies related to the ACL on financial instruments including loans and off-balance-sheet credit exposures are considered to be critical as these policies involve considerable subjective judgment and estimation by the Company. The ACL is a valuation account that is deducted from the amortized cost basis of loans and leases to present a net amount expected to be collected over the life of the asset.

The Company's ACL on loans and leases is estimated using relevant information, from internal and external sources, relating to past events, current conditions, and reasonable and supportable forecasts, and measured on a pooled basis where loans with similar risk characteristics (such as industry and type of collateral) are collectively evaluated for impairment. The ACL is computed using a discounted cash flow ("DCF") methodology that utilizes inputs and assumptions that require significant judgement. The most significant assumptions used are: 1) economic forecast assumptions, 2) prepayment assumptions, and 3) application of qualitative factors, the most significant of which is related to the loan risk grading process. Sensitivities to these three areas are disclosed below to demonstrate how a change in economic forecast, prepayment assumptions and risk grades may impact the ACL. The below sensitivities only consider each variable individually in isolation as compared to the reported total of the ACL and factor in no correlated impacts to other inputs or factors of the ACL model.

Economic forecast

Probability of default ("PD") and loss given default ("LGD") rates within the DCF model are adjusted for national unemployment rates during the reasonable and supportable forecast period. The Company has determined that a reasonable and supportable forecast period is four quarters with loss rates reverting back to a historical loss rate over the subsequent four quarters on a straight-line basis.

The ACL is highly sensitive to the unemployment economic forecast used. Due to the high level of uncertainty regarding significant assumptions, the Company often evaluates various economic scenarios from authoritative industry sources to assess variability of economic outlooks. At December 31, 2023, the Company utilized economic assumptions that management believed were the most likely to occur during the duration of the forecast period which had current unemployment levels remaining relatively stable during the one-year forecast period. Selecting a different forecast in the current environment could result in a significantly different ACL. The following table summarizes the impact of more severe unemployment forecast scenarios if they had been selected at December 31, 2023.

Scenario	Forecasted Unemployment	Approximate increase to ACL	
		\$	%
Severe	Current unemployment levels increase to 5.6% in the first quarter of 2024 and increase to 9.2% by the end of a one-year forecast period. At the end of the forecast period adjusted loss rates revert back to a historical rate over a one-year period.	\$30.9 million	24.6 %
Moderate	Current unemployment levels increase to 4.6% in the first quarter of 2024 and increase to 7.2% by the end of a one-year forecast period. At the end of the forecast period adjusted loss rates revert back to a historical rate over a one-year period.	17.6 million	14.0
Mild	Current unemployment levels decrease to 4.1% in the first quarter of 2024 before increasing to 5.2% by the end of a one-year forecast period. At the end of the forecast period adjusted loss rates revert back to a historical rate over a one-year period.	6.2 million	4.9

If facts and circumstances supported the Company's utilization of more severe unemployment scenario other impacts to the model would also be factored in which could result in a materially different estimate than that provided above.

Prepayment assumptions

Expected losses are calculated as the product of PD, LGD, and exposure at default ("EAD"). Expected losses are then discounted using the loan or leases effective interest rate, adjusted for estimated prepayments. Changes to the prepayment assumptions used would result in a different estimated ACL. To illustrate, if the weighted average prepayment assumption were decreased by 25%, the ACL as of December 31, 2023 would increase by approximately \$6.0 million or 4.7%.

Loan risk grade - qualitative adjustments

Historical loss information is adjusted for differences in current risk characteristics that are not considered within the quantitative modeling process of the ACL but are relevant in assessing the expected credit losses. These qualitative adjustments include risk grades, delinquency levels, pool age, portfolio mix and growth rates and the status of servicing efforts that may be impacted by natural disasters or health pandemics. As indicated above, the loan risk grading process generally has the most significant impact on the ACL. Accordingly, the Company's resulting loss estimates are highly dependent on the accuracy for the risk rating assigned to each loan and lease. The inherent imprecision in the risk rating system resulting from inaccuracy in assigning and/or entering risk ratings in the loan accounting system is monitored by the Company's internal and external asset quality review functions. Changes to internal risk ratings, would result in a different estimated allowance for credit losses. To illustrate, if all loans in the Company's five largest industry verticals (\$2.17 billion or 41.0% of unguaranteed held for investment loans not accounted for under the fair value option) were adjusted down by one risk grade (e.g., RG 4 to RG 5) across all pools, the ACL as of December 31, 2023 would increase by approximately \$13.9 million, or 11.0%.

Other Considerations

While management utilizes its best judgment and information available, the ultimate adequacy of our ACL is dependent upon a variety of factors beyond our control, including the performance of our portfolios, the economy, and changes in interest rates. See Note 1. Organization and Summary of Significant Accounting Policies and Note 3. Loans and Leases Held for Investment and Credit Quality in the notes to consolidated financial statements for further details of the factors considered by the Company in estimating the necessary level of the ACL.

Valuation of loans accounted for under the fair value option

Management estimates the fair value of loans accounted for under the fair value option using a DCF methodology. The estimate incorporates assumptions that market participants would use to estimate the fair value of similar assets such as prepayment speeds, default and severity rates, and a discount rate. This evaluation is inherently subjective as it requires assumptions that are susceptible to significant revision as more information becomes available.

The fair value of loans accounted for under the fair value option is highly sensitive to changes in the discount rate assumption. The discount rate used in the estimation process is tied to a benchmark risk-free rate with an additional spread based on loan maturity, size, rate structure, and credit risk. Generally, the value of the fair value option portfolio is inversely correlated to changes in the risk-free rate.

At December 31, 2023, the weighted average discount rate of loans accounted for under the fair value option was 9.6%. The table below reflects the sensitivity of the Company's loans measured at fair value to immediate changes in the discount rate assumption with all other assumptions remaining static:

	As of December 31, 2023
Fair value of loans accounted for under the fair value option	\$388,036
	Incremental Increase (Decrease) in Value
Discount Rate	
200 basis point increase	(\$19,469)
100 basis point increase	(9,917)
100 basis point decrease	10,738
200 basis point decrease	21,925

All loans accounted for under the fair value option were originated prior to 2021. See Note 10. Fair Value of Financial Instruments in the notes to consolidated financial statements for further details.

Valuation of servicing assets

The fair value of servicing assets is based on market prices for comparable servicing contracts, when available, or alternatively, is based on a valuation model that calculates the present value of estimated future net servicing income. The valuation model incorporates assumptions that market participants would use in estimating future net servicing income, such as adequate compensation for servicing, the discount rate, the custodial earnings rate, an inflation rate, ancillary income, prepayment speeds and default rates and losses.

The fair value of servicing rights is highly sensitive to changes in underlying assumptions. Changes in prepayment speed and discount rate assumptions typically have the most significant impacts on the fair value of servicing rights. Generally, as interest rates rise on variable rate loans, loan prepayments increase due to an increase in refinance activity, which results in a decrease in the fair value of servicing assets, however, weakening economic conditions or significant declines in interest rates can also increase loan prepayment activity. The discount rate used in the estimation process is tied to a benchmark risk-free rate with a risk premium added using a build-up method. Measurement of fair value is limited to the conditions existing and the assumptions used as of a particular point in time, and those assumptions may not be appropriate if they are applied at a different time.

At December 31, 2023, the key assumptions used to determine the fair value of the Company's servicing rights included a weighted average prepayment speed equal to 15.3% and a weighted average discount rate equal to 14.5%. The table below reflects the sensitivity of the current fair value of servicing assets to immediate changes in the above key assumptions with all other assumptions remaining static:

	As of December 31, 2023
Fair value of servicing rights	\$48,186
	Incremental Increase (Decrease) in Value
Prepayment Speed	
20% increase	(\$2,815)
10% increase	(1,452)
10% decrease	1,549
20% decrease	3,203
Discount Rate	
200 basis point increase	(\$2,186)
100 basis point increase	(1,117)
100 basis point decrease	1,170
200 basis point decrease	2,396

The sensitivity calculations above are hypothetical and should not be considered to be predictive of future performance. As indicated, changes in fair value based on changes in assumptions generally cannot be extrapolated because the relationship of the change in assumption to the change in fair value may not be linear. Also, in this table, the effect of a variation in a particular assumption on the fair value of the servicing rights is calculated without changing any other assumption. Changes in one factor may result in changes in another.

See Note 5. Servicing Assets in the notes to consolidated financial statements for further details of the factors considered by the Company in estimating the fair value of servicing assets.

Income taxes

The income tax provision calculation is complex and requires the use of estimates and judgment in its determination. The exercise of significant judgment arises in the interpretation of these tax laws and regulations, in various jurisdictions in which the Company operates and actual liabilities could significantly vary based upon the taxing authority's interpretation. Specifically, significant estimates in accounting for income taxes relate to the valuation of deferred tax assets and liabilities, evaluations of the Company's ability to realize deferred tax assets, including income tax credits and net operating loss carryforwards, and the need for a valuation allowance, the calculation of taxable income, the estimation of uncertain tax positions and the determination of temporary differences between book and tax bases. Adjustments to these items may occur due to modifications in tax rates, newly enacted laws, issuance of tax regulations, resolution of items with taxing authorities, alterations to interpretative statutory, judicial, and regulatory guidance that affects the Company's tax positions, changes in the Company's tax accounting methods or elections, or other facts and circumstances. Management closely monitors tax developments and the potential timing of these changes in order to evaluate the effect they may have on the Company's overall tax position and the estimates and judgments used in determining the income tax provision and records adjustments as necessary. To the extent the final tax outcome of these matters is different than the amounts recorded, such differences will affect the provision for income taxes in the period in which such determination is made.

Non-GAAP Measures

Some of the financial measures included in our selected historical consolidated financial data and elsewhere in this Report are not measures of financial performance recognized by GAAP. These non-GAAP financial measures are: “tangible shareholders’ equity;” “tangible assets;” “tangible shareholders’ equity to tangible assets;” “tangible book value per share;” and “efficiency ratio.” Management uses these non-GAAP financial measures in its analysis of the Company’s performance.

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

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

	Years Ended December 31,		
	2023	2022	2021
Total shareholders' equity	\$ 902,666	\$ 811,033	\$ 715,133
Less:			
Goodwill	1,797	1,797	1,797
Other intangible assets	1,721	1,873	2,026
Tangible shareholders' equity (a)	<u>\$ 899,148</u>	<u>\$ 807,363</u>	<u>\$ 711,310</u>
Shares outstanding (c)	44,617,673	44,061,244	43,619,070
Total assets	\$ 11,271,423	\$ 9,855,498	\$ 8,213,393
Less:			
Goodwill	1,797	1,797	1,797
Other intangible assets	1,721	1,873	2,026
Tangible assets (b)	<u>\$ 11,267,905</u>	<u>\$ 9,851,828</u>	<u>\$ 8,209,570</u>
Tangible shareholders' equity to tangible assets (a/b)	7.98%	8.20%	8.66%
Tangible book value per share (a/c)	\$ 20.15	\$ 18.32	\$ 16.31
Efficiency ratio:			
Noninterest expense (d)	\$ 322,885	\$ 314,226	\$ 230,987
Net interest income	345,305	327,501	296,785
Noninterest income	111,733	237,992	160,200
Adjusted operating revenue (e)	<u>\$ 457,038</u>	<u>\$ 565,493</u>	<u>\$ 456,985</u>
Efficiency ratio (d/e)	70.65%	55.57%	50.55%

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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

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

The Company has a total cumulative gap in interest-earning assets and interest-bearing liabilities of 5.0% as of December 31, 2023, indicating that, overall, assets will reprice before liabilities during the expected life of the instruments. Cumulative gap is a useful measure to monitor balance sheet match-funding, yet economic value of equity and net interest income simulations, discussed below, are more useful in understanding potential impacts to earnings from a change in interest rates. As of December 31, 2022, the Company had a cumulative gap in interest-earning assets and interest-bearing liabilities of 4.8%, indicating that, overall, assets will reprice before liabilities during the expected life of the instruments.

The matching of assets and liabilities may be analyzed by examining the extent to which such assets and liabilities are “interest rate sensitive.” An asset or liability is said to be interest rate sensitive within a specific time period if it will mature or reprice within that time period. The Company analyzes interest rate sensitivity position to manage the risk associated with interest rate movements through the use of two simulation models: economic value of equity (“EVE”) and net interest income (“NII”) simulations. The EVE simulation provides a long-term view of interest rate risk because it analyzes all of the Company’s future cash flows. EVE is defined as the present value of the Company’s assets, less the present value of its liabilities, adjusted for any off-balance sheet items. The results show a theoretical change in the economic value of shareholders’ equity as interest rates change. The NII simulation provides a short-term view of interest rate risk over a 12-month and 24-month time horizon. NII simulations are prepared by calculating net interest income in a scenario where interest rates do not change (base case) and then recalculated in scenarios with higher and lower interest rates. The results of each variation are compared against the base case scenario to determine the potential change in earnings.

EVE and NII simulations are completed routinely and presented to the Asset/Liability Committee. The simulations provide an estimate of the impact of changes in interest rates on equity and net interest income under a range of assumptions, under instantaneous parallel interest rate shocks assuming a static balance sheet. The numerous assumptions used in the simulation process are provided to the Asset/Liability Committee on at least an annual basis. Changes to these assumptions can significantly affect the results of the simulation. The simulation incorporates assumptions regarding the potential timing in the repricing of certain assets and liabilities when market rates change and the changes in spreads between different market rates. The simulation analysis incorporates management’s current assessment of the risk that pricing margins will change adversely over time due to competition or other factors.

The table below sets forth an approximation of the Company's NII sensitivity exposure for the 12-month periods ending December 31, 2024 and 2025 and the Company's EVE sensitivity at December 31, 2023 under instantaneous parallel interest rate shocks assuming a static balance sheet. The simulation uses projected repricing of assets and liabilities at December 31, 2023 on the basis of contractual maturities, anticipated repayments and scheduled rate adjustments. Critical model assumptions such as loan and investment prepayment rates, deposit decay rates, deposit betas and lags and assumed replacement pricing can have a significant impact on interest income simulation. A static balance sheet is maintained to remove volume considerations and to place the focal point on the rate sensitivity of the Company's balance sheet. While management believes such assumptions to be reasonable, approximate actual future activity may differ from the results shown below as it will include growth considerations and management actions to mitigate the impacts of changing interest rates on the balance sheet's earnings profile.

Basis Point ("bp") Change in Interest Rates	Estimated Increase/Decrease in Net Interest Income		Estimated Percentage Change in EVE
	12 Months Ending December 31, 2024	12 Months Ending December 31, 2025	As of December 31, 2023
+400	0.4%	(3.2)%	(26.9)%
+300	0.5	(2.1)	(20.4)
+200	0.5	(1.1)	(13.7)
+100	0.3	(0.4)	(6.8)
-100	(0.5)	0.2	6.8

Rates are increased instantaneously at the beginning of the projection. Under this instantaneous parallel interest rate shock, with a static balance sheet NII simulation, the Company is slightly asset sensitive in the initial year, as the Company's large variable rate loan portfolio reprices the full amount of the assumed change in interest rates, while the large retail savings and short-term retail certificates of deposits portfolio will reprice with an assumed beta. The Company's retail certificate of deposits portfolio has a larger maturity event in the first and last quarters of the year. The Company is slightly liability sensitive in the second year of the projection due to interest rates increasing or decreasing for the full year, the Company's loan portfolio continuing to reprice, and also due to the other assumptions used in the analysis as noted previously. Interest rates do not normally move all at once or evenly over time, but management believes that the analysis is useful to understanding the potential direction and magnitude of net interest income changes due to changing interest rates.

The EVE analysis shows that the Company would theoretically lose market value in a rising rate environment. The favorable EVE change resulting from the loan and lease portfolio in a rising rate analysis is more than offset by the devaluation of the interest-bearing liabilities. This is largely driven by the Company's longer asset duration, primarily consisting of investments and loans, versus the shorter duration of its funding portfolio, primarily consisting of retail savings and short-term retail certificates of deposits.

The NII and EVE simulation analysis shown above is only an estimate of interest rate risk exposure at a particular point in time without growth considerations. The Company regularly models various forecasted rate projections with non-parallel shifts that are reflective of potential current rate environment outcomes using the Company's assumed growth projections. Under these scenarios, the Company's interest rate risk profile may increase in asset sensitivity, decrease in asset sensitivity, or depending on the scenario and timing of anticipated rate changes, may transition to a liability sensitive interest rate risk profile. Regular, robust modeling of various interest rate outcomes allows the Company to properly assess and manage potential risks from various rate shifts.

Report of Independent Registered Public Accounting Firm

To the Shareholders, Board of Directors, and Audit Committee
Live Oak Bancshares, Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Live Oak Bancshares, Inc. (the “Company”) as of December 31, 2023 and 2022, the related consolidated statements of income, comprehensive income, shareholders’ equity, and cash flows for each of the years in the three-year period ended December 31, 2023, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 22, 2024, expressed an unqualified opinion thereon.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audits.

We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

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

Allowance for Credit Losses (ACL)

The Company's allowance for credit losses (ACL) for expected credit losses on loans and leases was \$125.8 million as of December 31, 2023. The determination of the ACL has been identified by the Company as a critical accounting estimate. As described in Notes 1 and 3 to the consolidated financial statements, the Company estimates its ACL on a pooled basis for loans and leases that share risk characteristics and on an individual basis for those that do not. For those evaluated on a pooled basis, the Company's historical credit loss experience, combined with reasonable and supportable forecasts, supports the underlying assumptions for the estimation of a quantitative component of the ACL. In addition, there is a qualitative factor component of the ACL based on additional internal and external indicators that adjust for differences in current risk characteristics not considered within the quantitative modeling. The Company estimates reserves on individually evaluated loans and leases using a discounted cash flow methodology or through the evaluation of collateral values. The estimation of the ACL is inherently subjective as it requires estimates that are susceptible to significant revision as more information becomes available.

We identified the Company's estimate of the ACL as a critical audit matter. The principal considerations for that determination were the degree of subjectivity and judgment required to audit management's selection of assumptions for both the quantitative and qualitative factor components of the ACL for the pooled loans and leases and our use of an auditor's specialist. This was particularly true for the areas considered by management in establishing the qualitative factors, as well as the level assigned by management to each qualitative factor.

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

- We evaluated the design and tested the operating effectiveness of controls relating to management's determination of the ACL, including controls over:
 - The credit administration function to ensure the timely and complete identification of individually evaluated loans and leases;
 - Management's review of portfolio trends that might impact the calculation of the ACL, and;
 - Management's review of the ACL, including the review of the qualitative components of the ACL.
- We tested the completeness of the individually evaluated loan and lease population, including substandard or worse rated loans and leases, non-accrual loans and leases, and past due loans and leases.
- We tested the calculation of reserves on a sample of identified individually evaluated loans and leases, including assessing the reasonableness of the significant assumptions including any adjustments made to appraisals for discounts, selling costs, and other unobservable adjustments.
- We involved our internal valuation specialists to assist in:
 - Evaluating the appropriateness of forecast inputs and assumptions, and;
 - Testing the design of the model calculation through a re-performance of the discounted cash flow on a sample basis.
- We evaluated the reasonableness of management's application of qualitative factor adjustments to the ACL, including the comparison of factors considered by management to third party or internal sources as well as evaluated the appropriateness and level of the qualitative factor adjustments.
- We inspected overall trends in credit quality by comparing the Company's year-over-year and quarterly changes in qualitative factors and the ACL.
- We evaluated subsequent events and transactions and considered whether they corroborated or contradicted the Company's conclusion.

Loans Held at Fair Value

The Company had \$388.0 million of loans held for investment as of December 31, 2023, representing retained participating interests of government guaranteed loans, for which management elected the fair value option. The valuation of loans accounted for under the fair value option has been identified by the Company as a critical accounting estimate. As described in Notes 1 and 10 to the consolidated financial statements, the fair values of loans are determined by discounting estimated cash flows and incorporating assumptions that market participants would use to estimate fair value of similar assets such as prepayment speeds, default and severity rates, and a discount rate. The fair value of loans accounted for using the fair value option is sensitive to changes in underlying assumptions. The discount rate is one of the most significant assumptions.

We identified the Company's estimate of the fair value of loans for which the fair value option has been elected as a critical audit matter. The principal considerations for that determination were the high degree of subjectivity and auditor judgment required to assess the reasonableness of the assumptions used and our use of an auditor's specialist. In particular, discount rates are an unobservable input and the related assumptions are the most subjective and provide the most sensitivity to the fair value measurement.

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

- We evaluated the design and tested the operating effectiveness of controls relating to the valuation of loans accounted for using the fair value option, including controls over:
 - Management's valuation model, which is designed to ensure the completeness and accuracy of data used in the model, and;
 - The determination of significant inputs and assumptions, including unobservable inputs such as discount rates, used in the model.
- We involved our internal valuation specialists to assist in:
 - Evaluating the appropriateness of assumptions used in the model, and;
 - Testing the design of the model calculation through a re-performance of discounted cash flows on loans accounted for under the fair value option.
- We inspected overall trends for the discount rate and prepayment speeds, and considered how the Company's assumptions compared to observable market interest rate trends and external prepayment speed data.

Servicing Assets

The Company's servicing assets were \$48.6 million as of December 31, 2023. The valuation of the servicing asset has been identified by the Company as a critical accounting estimate. As described in Notes 1, 5, and 10 to the consolidated financial statements, the Company recognizes servicing assets, which represent the portion of the servicing spread that exceeds adequate compensation for the servicing function of the sold portion of loans originated by the Company. The Company accounts for the servicing assets at fair value with changes in the fair value reported in loan servicing asset revaluation within the consolidated statements of income. The valuation model incorporates assumptions that market participants would use in estimating future net servicing income, such as adequate compensation for servicing, the discount rate, the custodial earnings rate, ancillary income, prepayment speeds and default rates and losses, with the prepayment speed and discount rate being the most significant assumptions. The fair value of servicing rights is sensitive to changes in underlying assumptions.

We identified the Company's valuation of the servicing asset as a critical audit matter. The principal considerations for that determination were the high degree of auditor judgment required to assess the reasonableness of certain assumptions used in the valuation model and our use of an auditor's specialist. In particular, prepayment speeds and discount rates are unobservable inputs developed by management and the related assumptions are the most subjective and provide the most sensitivity to the servicing assets.

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

- We evaluated the design and tested the operating effectiveness of controls relating to the valuation of servicing assets, including controls over:
 - Management’s valuation model, which is designed to ensure the completeness and accuracy of data used in the model, and;
 - The determination of significant inputs and assumptions, including unobservable inputs such as prepayment speeds and discount rates, used in the model.
- We involved the firm’s internal valuation specialists to assist in:
 - Evaluating the methodologies and assumptions used by management, including assessing the reasonableness of significant unobservable inputs such as prepayment speeds and discount rates and assumptions of the valuation model, and;
 - Independently calculating the discounted cash flows at the individual loan level for a sample of loans and comparing the results to management’s estimate.
- We inspected overall trends for the prepayments speeds and discount rate, and considered how the Company’s prepayment speed and discount rate assumptions compared to external prepayment speed data and observable market interest rate trends.

/s/ FORVIS, LLP

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

Greenville, North Carolina

February 22, 2024

Report of Independent Registered Public Accounting Firm

To the Shareholders, Board of Directors, and Audit Committee
Live Oak Bancshares, Inc.

Opinion on the Internal Control over Financial Reporting

We have audited Live Oak Bancshares, Inc.'s (the "Company") internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control – Integrated Framework: (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control – Integrated Framework: (2013)* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated financial statements of the Company as of December 31, 2023 and 2022, and for each of the three years in the period ended December 31, 2023, and our report dated February 22, 2024, expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definitions and Limitations of Internal Control over Financial Reporting

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

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

/s/ FORVIS, LLP

Greenville, North Carolina

February 22, 2024

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

	December 31, 2023	December 31, 2022
Assets		
Cash and due from banks	\$ 582,540	\$ 280,239
Federal funds sold	—	136,397
Certificates of deposit with other banks	250	4,000
Investment securities available-for-sale	1,126,160	1,014,719
Loans held for sale	387,037	554,610
Loans and leases held for investment (includes \$388,036 and \$494,458 measured at fair value, respectively)	8,633,847	7,344,178
Allowance for credit losses on loans and leases	(125,840)	(96,566)
Net loans and leases	8,508,007	7,247,612
Premises and equipment, net	257,881	263,290
Foreclosed assets	6,481	—
Servicing assets (includes \$48,186 and \$26,323 measured at fair value, respectively)	48,591	26,323
Other assets	354,476	328,308
Total assets	<u>\$ 11,271,423</u>	<u>\$ 9,855,498</u>
Liabilities and Shareholders' Equity		
Liabilities		
Deposits:		
Noninterest-bearing	\$ 259,270	\$ 194,100
Interest-bearing	10,015,749	8,690,828
Total deposits	10,275,019	8,884,928
Borrowings	23,354	83,203
Other liabilities	70,384	76,334
Total liabilities	<u>10,368,757</u>	<u>9,044,465</u>
Shareholders' equity		
Preferred stock, no par value, 1,000,000 authorized, none issued or outstanding at December 31, 2023 and December 31, 2022	—	—
Class A common stock, no par value, 100,000,000 shares authorized, 44,617,673 and 44,061,244, shares issued and outstanding at December 31, 2023 and December 31, 2022, respectively	344,568	330,854
Class B common stock, no par value, 10,000,000 shares authorized, none issued or outstanding at December 31, 2023 and December 31, 2022	—	—
Retained earnings	642,817	572,497
Accumulated other comprehensive loss	(84,719)	(92,318)
Total shareholders' equity	902,666	811,033
Total liabilities and shareholders' equity	<u>\$ 11,271,423</u>	<u>\$ 9,855,498</u>

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.
Consolidated Statements of Income
(Dollars in thousands, except per share data)

	Years Ended December 31,		
	2023	2022	2021
Interest income			
Loans and fees on loans	\$ 623,667	\$ 418,545	\$ 347,738
Investment securities, taxable	33,497	19,667	12,533
Other interest earning assets	31,111	6,261	942
Total interest income	688,275	444,473	361,213
Interest expense			
Deposits	340,207	115,035	59,740
Borrowings	2,763	1,937	4,688
Total interest expense	342,970	116,972	64,428
Net interest income	345,305	327,501	296,785
Provision for loan and lease credit losses			
Net interest income after provision for loan and lease credit losses	293,982	286,558	281,575
Noninterest income			
Loan servicing revenue	27,399	25,359	25,219
Loan servicing asset revaluation	4,886	(16,577)	(11,726)
Net gains on sales of loans	46,545	43,244	67,280
Net (loss) gain on loans accounted for under the fair value option	(3,539)	1,046	4,257
Equity method investments (loss) income	(5,994)	144,250	(1,716)
Equity security investments (losses) gains, net	(969)	3,355	44,752
Lease income	10,007	10,084	10,263
Management fee income	13,324	10,090	6,378
Other noninterest income	20,074	17,141	15,493
Total noninterest income	111,733	237,992	160,200
Noninterest expense			
Salaries and employee benefits	175,052	170,822	124,932
Travel expense	8,922	8,499	5,809
Professional services expense	7,737	11,737	15,135
Advertising and marketing expense	12,559	10,543	5,002
Occupancy expense	8,490	11,088	8,423
Technology expense	31,858	28,434	22,648
Equipment expense	14,997	15,120	14,869
Other loan origination and maintenance expense	14,804	13,168	13,529
Renewable energy tax credit investment impairment	14,644	16,217	3,187
FDIC insurance	16,670	9,756	7,070
Contributions and donations	—	6,462	2,331
Other expense	17,152	12,380	8,052
Total noninterest expense	322,885	314,226	230,987
Income before taxes			
Income tax expense	8,932	34,116	43,793
Net income	\$ 73,898	\$ 176,208	\$ 166,995
Basic earnings per share	\$ 1.67	\$ 4.02	\$ 3.87
Diluted earnings per share	\$ 1.64	\$ 3.92	\$ 3.71

See Notes to Consolidated Financial Statements

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

	Years Ended December 31,		
	2023	2022	2021
Net income	\$ 73,898	\$ 176,208	\$ 166,995
Other comprehensive income (loss) before tax:			
Net unrealized gain (loss) on investment securities available-for-sale during the period	9,999	(124,032)	(25,738)
Reclassification adjustment for gain on sale of securities available- for-sale included in net income	—	—	—
Other comprehensive income (loss) before tax	9,999	(124,032)	(25,738)
Income tax (expense) benefit	(2,400)	29,768	6,177
Other comprehensive income (loss), net of tax	7,599	(94,264)	(19,561)
Total comprehensive income	<u>\$ 81,497</u>	<u>\$ 81,944</u>	<u>\$ 147,434</u>

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.
Consolidated Statements of Changes in Shareholders' Equity
(Dollars in thousands, except per share data)

	Common stock			Retained earnings	Accumulated other comprehensive income (loss)	Total equity
	Shares		Amount			
	Class A	Class B				
Balance at December 31, 2020	<u>41,344,689</u>	<u>1,107,757</u>	<u>\$ 310,619</u>	<u>\$ 235,724</u>	<u>\$ 21,507</u>	<u>\$ 567,850</u>
Net income	—	—	—	166,995	—	166,995
Other comprehensive loss	—	—	—	—	(19,561)	(19,561)
Issuance of restricted stock	453,127	—	—	—	—	—
Tax withholding related to vesting of restricted stock and other	—	—	(19,151)	—	—	(19,151)
Employee stock purchase program	13,674	—	670	—	—	670
Non-voting common stock converted to voting common stock in private sale	982,733	(982,733)	—	—	—	—
Stock option exercises	709,823	—	4,158	—	—	4,158
Stock option based compensation expense	—	—	1,379	—	—	1,379
Restricted stock expense	—	—	15,572	—	—	15,572
Transfer from retained earnings to other assets for pro rata portion of equity method investee stock compensation expense	—	—	—	3,360	—	3,360
Repurchase and retirement of shares securing a note receivable	(10,000)	—	(953)	—	—	(953)
Cash dividends (\$0.12 per share)	—	—	—	(5,186)	—	(5,186)
Balance at December 31, 2021	<u>43,494,046</u>	<u>125,024</u>	<u>\$ 312,294</u>	<u>\$ 400,893</u>	<u>\$ 1,946</u>	<u>\$ 715,133</u>
Net income	—	—	—	176,208	—	176,208
Other comprehensive loss	—	—	—	—	(94,264)	(94,264)
Issuance of restricted stock	211,235	—	—	—	—	—
Tax withholding related to vesting of restricted stock and other	—	—	(4,972)	—	—	(4,972)
Employee stock purchase program	29,383	—	1,067	—	—	1,067
Non-voting common stock converted to voting common stock in private sale	125,024	(125,024)	—	—	—	—
Stock option exercises	201,556	—	2,118	—	—	2,118
Stock option based compensation expense	—	—	942	—	—	942
Restricted stock expense	—	—	19,405	—	—	19,405
Transfer from retained earnings to other assets for pro rata portion of equity method investee stock compensation expense	—	—	—	662	—	662
Cash dividends (\$0.12 per share)	—	—	—	(5,266)	—	(5,266)
Balance at December 31, 2022	<u>44,061,244</u>	<u>—</u>	<u>\$ 330,854</u>	<u>\$ 572,497</u>	<u>\$ (92,318)</u>	<u>\$ 811,033</u>
Net income	—	—	—	73,898	—	73,898
Other comprehensive income	—	—	—	—	7,599	7,599
Issuance of restricted stock	373,616	—	—	—	—	—
Tax withholding related to vesting of restricted stock and other	—	—	(6,725)	—	—	(6,725)
Employee stock purchase program	59,074	—	1,396	—	—	1,396
Stock option exercises	123,739	—	1,168	—	—	1,168
Stock option based compensation expense	—	—	272	—	—	272
Restricted stock expense	—	—	17,603	—	—	17,603
Adoption of ASU 2022-02	—	—	—	676	—	676
Transfer from retained earnings to other assets for pro rata portion of equity method investee stock compensation expense	—	—	—	1,072	—	1,072
Cash dividends (\$0.12 per share)	—	—	—	(5,326)	—	(5,326)
Balance at December 31, 2023	<u>44,617,673</u>	<u>—</u>	<u>\$ 344,568</u>	<u>\$ 642,817</u>	<u>\$ (84,719)</u>	<u>\$ 902,666</u>

See Notes to Consolidated Financial Statements

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

	Years Ended December 31,		
	2023	2022	2021
<i>Cash flows from operating activities</i>			
Net income	\$ 73,898	\$ 176,208	\$ 166,995
Adjustments to reconcile net income to net cash provided (used) by operating activities:			
Depreciation and amortization	21,271	20,779	21,366
Provision for loan and lease credit losses	51,323	40,943	15,210
Amortization of premium on securities, net of accretion	8	3,420	6,461
Deferred tax (benefit) expense	(22,161)	27,129	24,808
Originations of loans held for sale	(877,083)	(1,042,061)	(1,364,168)
Proceeds from sales of loans held for sale	1,362,803	1,067,758	1,092,222
Net gains on sale of loans held for sale	(46,545)	(43,244)	(67,280)
Net loss (gain) on impairment and sale of foreclosed assets	751	(24)	(779)
Net loss (gain) on loans accounted for under fair value option	3,539	(1,046)	(4,257)
Net change in servicing assets	(22,268)	7,251	344
Net gain on sale or disposal of long lived asset	(4,411)	—	(114)
Net loss (gain) on disposal of premises and equipment	377	31	(48)
Impairment on premises and equipment, net	499	—	904
Equity method investments loss (income)	5,994	(144,250)	1,716
Equity security investments losses (gains), net	969	(3,355)	(44,752)
Renewable energy tax credit investment impairment	14,644	16,217	3,187
Stock option compensation expense	272	942	1,379
Restricted stock compensation expense	17,603	19,405	15,572
Stock based compensation excess tax (deficiency) benefit	(1,004)	531	9,340
Business combination contingent consideration fair value adjustment	125	(86)	99
Lease right-of-use assets and liabilities, net	(59)	232	(26)
Changes in assets and liabilities:			
Other assets	35,556	(15,889)	1,754
Other liabilities	3,970	(6,406)	350
Net cash provided (used) by operating activities	<u>620,071</u>	<u>124,485</u>	<u>(119,717)</u>
<i>Cash flows from investing activities</i>			
Purchases of investment securities available-for-sale	(215,595)	(397,346)	(428,246)
Proceeds from sales, maturities, calls, and principal paydowns of investment securities available-for-sale	114,145	161,227	240,093
Proceeds from SBA reimbursement/sale of foreclosed assets, net	—	1,837	6,786
Maturities of certificates of deposit with other banks	3,750	750	1,750
Loan and lease originations and principal collections, net	(1,626,084)	(1,268,871)	8,824
Proceeds from sale of long lived asset	18,588	—	8,988
Purchases of equity security investments	(3,390)	(9,283)	—
Purchases of equity method investments	(27,209)	(35,955)	—
Proceeds from sale of equity security investments	—	625	15,000
Proceeds from sale of equity method investments	7,612	148,423	—
Proceeds from sale of premises and equipment	100	—	84
Purchases of premises and equipment, net	(46,839)	(43,751)	(3,082)
Net cash used by investing activities	<u>(1,774,922)</u>	<u>(1,442,344)</u>	<u>(149,803)</u>

See Notes to Consolidated Financial Statements

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

	Years Ended December 31,		
	2023	2022	2021
<i>Cash flows from financing activities</i>			
Net increase in deposits	\$ 1,390,091	\$ 1,772,884	\$ 1,399,216
Proceeds from borrowings	2,906,071	62,096	602,848
Repayment of borrowings	(2,965,920)	(297,182)	(1,826,652)
Stock option exercises	1,168	2,118	4,158
Employee stock purchase program	1,396	1,067	670
Withholding cash issued in lieu of restricted stock and other	(6,725)	(4,972)	(19,151)
Repurchase and retirement of shares	—	—	(953)
Shareholder dividend distributions	(5,326)	(5,266)	(5,186)
Net cash provided by financing activities	1,320,755	1,530,745	154,950
Net increase (decrease) in cash and cash equivalents	165,904	212,886	(114,570)
<i>Cash and cash equivalents, beginning</i>	416,636	203,750	318,320
<i>Cash and cash equivalents, ending</i>	<u>\$ 582,540</u>	<u>\$ 416,636</u>	<u>\$ 203,750</u>

Supplemental disclosure of cash flow information

Interest paid	\$ 342,766	\$ 117,516	\$ 66,844
Income tax paid, net	5,303	24,708	19,722

Supplemental disclosures of noncash operating, investing, and financing activities

Unrealized holding gains (losses) on investment securities available-for-sale, net of taxes	\$ 7,599	\$ (94,264)	\$ (19,561)
Transfers from loans and leases to foreclosed real estate and other repossessions or SBA receivable	39,901	18,496	13,346
Net transfers between foreclosed real estate and SBA receivable	—	(15)	(1,643)
Transfer aircraft from premises and equipment, net to held for sale assets	30,154	—	—
Transfer of loans held for sale to loans and leases held for investment	275,408	930,612	638,696
Transfer of loans and leases held for investment to loans held for sale	617,189	468,042	338,873
Transfer from retained earnings to other assets for pro rata portion of equity method investee stock compensation expense	1,072	662	3,360
Equity method investment commitments	7,715	17,022	—
Equity security investment commitments	—	394	2,245
Change related to accounting change for ASU 2022-02	676	—	—

See Notes to Consolidated Financial Statements

Note 1. Organization and Summary of Significant Accounting Policies

Organization

Live Oak Bancshares, Inc. (collectively with its subsidiaries including Live Oak Banking Company, the “Company”) is a bank holding company headquartered in Wilmington, North Carolina incorporated under the laws of North Carolina in December 2008. The Company conducts business operations primarily through its commercial bank subsidiary, Live Oak Banking Company (the “Bank”). The Bank was organized and incorporated under the laws of the State of North Carolina on February 25, 2008 and commenced operations on May 12, 2008. The Bank has satellite sales offices across the United States. The Bank specializes in providing lending and deposit related services to small businesses nationwide. A significant portion of the loans originated by the Bank are partially guaranteed by the Small Business Administration (“SBA”) under the 7(a) Loan Program and the U.S. Department of Agriculture’s (“USDA”) Rural Energy for America Program (“REAP”), Water and Environmental Program (“WEP”), Business & Industry (“B&I”) and Community Facilities loan programs. These loans are to small businesses and professionals with what the Bank believes are lower risk characteristics. Industries, or “verticals,” on which the Bank focuses its lending efforts are carefully selected. The Bank also lends more broadly to select borrowers outside of those verticals.

The Company’s wholly owned material subsidiaries are the Bank, Government Loan Solutions (“GLS”), Live Oak Grove, LLC (“Grove”), Live Oak Ventures, Inc. (“Live Oak Ventures”), and Canapi Advisors, LLC (“Canapi Advisors”). GLS is a management and technology consulting firm that advises and offers solutions and services to participants in the government guaranteed lending sector. GLS primarily provides services in connection with the settlement, accounting, and securitization processes for government guaranteed loans, including loans originated under the SBA 7(a) loan programs and USDA guaranteed loans. The Grove provides Company employees and business visitors with on-site dining. Live Oak Ventures’ purpose is investing in businesses that align with the Company’s strategic initiative to be a leader in financial technology. Canapi Advisors provides investment advisory services to a series of funds focused on providing venture capital to new and emerging financial technology companies.

The Bank’s wholly owned subsidiaries are Live Oak Number One, Inc., Live Oak Clean Energy Financing LLC (“LOCEF”), Live Oak Private Wealth, LLC (“Live Oak Private Wealth”) and Tiburon Land Holdings, LLC (“TLH”). Live Oak Number One, Inc. holds properties foreclosed on by the Bank. LOCEF provides financing to entities for renewable energy applications. Live Oak Private Wealth provides high-net-worth individuals and families with strategic wealth and investment management services. During the first quarter of 2022, Jolley Asset Management, LLC (“JAM”) was merged into Live Oak Private Wealth. JAM was previously a wholly owned subsidiary of Live Oak Private Wealth. TLH holds land adjacent to the Bank’s headquarters consisting of wetlands and other protected property for the use and enjoyment of the Bank’s employees and customers.

Basis of Presentation

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

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

Consolidation Policy

The consolidated financial statements include the financial statements of the Company and its directly and indirectly wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

The Company evaluates its relationships with other entities to identify whether they are a voting interest entity or variable interest entity (“VIE”). Voting interest entities are entities that generally (1) have sufficient equity to finance their activities and (2) provide the equity investors with power to make significant decisions relating to the entity’s operations. A voting interest entity is consolidated if the Company holds majority voting rights.

The Company is considered to hold a controlling financial interest in a VIE when it is the primary beneficiary. A primary beneficiary has both (1) the power to direct the activities that most significantly impact the VIE’s economic performance, and (2) the obligation to absorb losses or right to receive benefits of a VIE that could potentially be significant to a VIE. The parties that make investment and investment decisions, or parties that can unilaterally remove those decision makers are deemed to have the power to direct the activities of a VIE. The Company considers all of its economic interests in the VIE when determining whether it has the obligation to absorb losses or the right to receive benefits from the VIE. For details on the Company’s VIE investments refer to Note 2. Securities, “Variable Interest Entities.”

Business Combinations

Business combinations are accounted for by applying the acquisition method in accordance with Accounting Standards Codification (“ASC”) 805, *Business Combinations*. Under the acquisition method, identifiable assets acquired and liabilities assumed, and any non-controlling interest in the acquiree at the acquisition date are measured at their fair values as of that date, and are recognized separately from any resulting goodwill. Results of operations of the acquired entities are included in the consolidated statements of income and comprehensive income from the date of acquisition. Any subsequent measurement-period adjustments are recorded within 12 months of the acquisition date.

Business Segments

Operating segments are components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. Management has determined that the Company has two reportable operating segments: Banking and Fintech, as discussed more fully in Note 15. Segments.

Use of Estimates

In preparing financial statements in conformity with GAAP, management is required to make estimates and assumptions that affect reported amounts of assets and liabilities as of the date of the balance sheet and reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Material estimates that are particularly susceptible to significant change in the near term relate to the determination of the allowance for credit losses on loans and leases, valuations of loans at fair value and servicing assets.

During the first quarter of 2023, the Company refined its allowance for credit losses (“ACL”) methodology for estimating probability of default (“PD”) and loss given default (“LGD”). Additionally, the Company began using internally calculated prepayment rates based on its historical information. These changes, based on the continued maturity of internal data, resulted in a \$1.5 million increase in the ACL in the first quarter of 2023.

The Company also refined its methodology for estimating its reserve on unfunded loan commitments by incorporating historical utilization rates on unused lines of credit and updating probability assumptions related to construction loan commitments. These changes resulted in a \$2.4 million increase in the reserve on unfunded commitments in the first quarter of 2023.

During the third quarter of 2023, the Company changed the valuation techniques used to estimate the fair value of servicing rights and loans measured at fair value as a result of rising interest rates and their impacts on market conditions. The changes include aligning our net servicing income and loan fair value estimates with changes in forward interest rate curves. Loan fair value estimates were also revised to utilize market participant credit loss information. These revisions provide estimates that the Company believes are more representative of fair value while transitioning from unobservable inputs to those that are more observable. These estimate changes were implemented as of July 1, 2023 and resulted in one-time adjustments to increase the estimated value of the servicing asset by \$13.7 million and loans measured at fair value by \$1.3 million. This adjustment also increased noninterest income by a corresponding \$15.0 million.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

These refinements have been accounted for as changes in accounting estimates under Financial Accounting Standards Board (“FASB”) ASC 250, *Accounting Changes and Error Corrections*, with prospective application beginning in the period of change.

Cash and Cash Equivalents

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

To comply with banking regulations, the Company is required to maintain certain average cash reserve balances. The daily average cash reserve requirement was suspended for the years ended December 31, 2023 and 2022.

Certificates of Deposit with other Banks

The certificate of deposit with other banks has a maturity of December 2024 and bears interest at a rate of 4.60%. All investments in certificates of deposit are with FDIC insured financial institutions and none exceed the maximum insurable amount of \$250 thousand.

Investments

Debt Securities

Debt securities that management has the positive intent and ability to hold to maturity are classified as held-to-maturity and recorded at amortized cost. Securities that may be sold prior to maturity are classified as available-for-sale and recorded at fair value. Unrealized gains and losses for available-for-sale investment securities, other than certain credit-related impairment losses, are excluded from earnings and reported in other comprehensive income. The Company’s entire portfolio of debt securities is classified as available-for-sale for the periods presented.

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

When debt securities are in an unrealized loss position, the Company first assesses whether it intends to sell, or it is more likely than not that it will be required to sell, the security before recovery of its amortized cost basis. If either of the criteria regarding intent or requirement to sell is met, the security’s amortized cost basis is written down to fair value through income. Debt securities that do not meet the aforementioned criteria are evaluated to determine whether the decline in fair value has resulted from credit losses or other factors. In making this assessment, management considers the extent to which fair value is less than amortized cost, any changes to the rating of the security by a rating agency, and adverse conditions specifically related to the security, among other factors. If this assessment indicates that a credit loss exists, the present value of cash flows expected to be collected from the security are compared to the amortized cost basis of the security. If the present value of cash flows expected to be collected from the security is less than the amortized cost basis, a credit loss exists and an ACL is recorded for the credit loss, limited by the amount that the fair value is less than the amortized cost basis. Any impairment that has not been recorded through an ACL is recognized in other comprehensive income. Changes in the ACL are recorded as provision for, or reversal of, credit loss expense. Losses are charged against the allowance when management believes the uncollectibility of an available-for-sale security is confirmed or when either of the criteria regarding intent or requirement to sell is met. Management has made the accounting policy election to exclude accrued interest receivable on available-for-sale debt securities from the estimate of credit losses. Securities are charged-off against the allowance or, in the absence of any allowance, written down through income when deemed uncollectible by management or when either of the aforementioned criteria regarding intent or requirement to sell is met.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Equity Investments

Equity investments are generally non-marketable investments and are included in the other assets line in the consolidated balance sheets. The Company generally accounts for equity investments either under the equity method or equity security accounting. Earnings impacts are reflected in the equity method investments (loss) income and equity security investments (losses) gains, net line items on the consolidated statements of income.

Investments in in-substance common stock through which there is significant influence but not control over the investee are accounted for under the equity method. The determination of whether the Company has significant influence over an investee requires judgement based on the facts and circumstances of each investment including, share type, level of ownership, power to control and legal structure. Significant influence is generally presumed to exist in privately held companies where the Company owns at least 20% of voting stock, or 5% interest in limited partnerships or limited liability companies. Qualitatively, significant influence can exist through the ability to influence the investee's operating and financial policies through board involvement or other influence. Under the equity method, the Company recognizes its proportionate share of the results of operations of the investee based on most current information available. In instances where cash distributions vary at different points and/or are not directly linked to the Company's ownership percentage, the investee's net income or loss is allocated using the hypothetical liquidation at book value ("HLBV") method.

Investments that do not qualify as in-substance common stock, or through which the Company is not able to exercise significant influence over the investee, are accounted for as equity securities, whereby investments are measured at fair value with changes in fair value recognized in net income, unless those investments have no readily determinable fair value. Investments without a readily determinable fair value are measured at cost minus impairment, if any, plus or minus changes in value resulting from observable price changes arising from orderly transactions. Management considers a range of factors when adjusting the fair value of these investments, including, but not limited to, the term and nature of the investment, market conditions, values for comparable securities, current and projected operating performance, exit strategies, financing transactions subsequent to the acquisition of the investment and a discount for certain investments that have lock-up restrictions or other features that indicate a discount to fair value is warranted.

For equity securities not accounted for at fair value, any impairment is recognized with the full charge recorded in earnings. To determine whether an equity security may be impaired, the Company considers various indicators of impairment, including, but not limited to (1) the financial condition and near-term prospects of the issuer, (2) adverse market conditions and (3) bona-fide offers to purchase an equity interest in the investee below the carrying amount.

Federal Home Loan Bank Stock

Membership in the Federal Home Loan Bank of Atlanta ("FHLB") requires ownership of FHLB stock. FHLB stock is restricted because it may only be sold to the FHLB and all sales must be at par. FHLB stock is carried at cost minus impairment, if any, and is recorded within other assets in the consolidated balance sheets. FHLB stock was \$6.8 million and \$4.1 million at December 31, 2023 and 2022, respectively.

Loans and Leases

Fair Value Option

Prior to 2021, management elected to account for the retained participating interests in government guaranteed loans under the fair value option. Those loans for which the fair value option were elected are measured at fair value and classified as either held for sale or held for investment, as outlined below. Not electing fair value generally results in a larger discount being recorded on the date of the sale. This discount is subsequently accreted into interest income over the underlying loan's remaining term using the effective interest method. Management made this change of election in alignment with its ongoing effort to reduce volatility and drive more predictable revenue. In accordance with accounting standards, any loans for which fair value was previously elected continue to be measured accordingly. Interest income is recognized in the same manner on loans reported at fair value as on non-fair value loans, except in regard to origination fees and costs which are recognized immediately upon fair value election. The changes in fair value of loans are reported in noninterest income. Fair value of loans includes adjustments for historical credit losses, market liquidity, and economic conditions.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Management estimates the fair value of loans accounted for under the fair value option using a discounted cash flow (“DCF”) methodology. The estimate incorporates assumptions that market participants would use to estimate fair value of similar assets such as prepayment speeds, default and severity rates, and a discount rate. This evaluation is inherently subjective as it requires estimates that are susceptible to significant revision as more information becomes available.

Held for Sale

Management designates loans as held for sale based on its intent to sell loans, or portions of loans, in established secondary markets or to participant banks and credit unions. Salability requirements of government guaranteed portions include, but are not limited to, full disbursement of the loan commitment amount. Loans held for sale are carried at either fair value, if the fair value option is elected, or the lower of cost or estimated fair value. Net unrealized losses, if any, on loans without a fair value election, are recognized through a valuation allowance and recorded as a charge to noninterest income. The cost basis of loans held for sale includes unamortized loan origination fees and costs. The pro-rata portion, based on the percent of the total loan sold, of the remaining deferred fees and costs are recognized as an adjustment to the gain on sale.

Transfers of loans, or portions of loans that meet the definition of a participating interest are accounted for as sales on the transaction settlement date when control has been surrendered. Control is deemed surrendered when the loans have been (1) legally isolated from the Company, (2) the transferee obtains the right to pledge or transfer the loans free of conditions that constrain it from using that right, and (3) the Company does not maintain effective control over the loans through a repurchase agreement or other means. If the transfer is accounted for as a sale, the loans are derecognized from the Company’s consolidated balance sheet and a gain or loss is recognized in net gains on sales of loans line item on the consolidated statements of income. The gain on sale recognized in income is the sum of the premium on the guaranteed loan and the fair value of the servicing assets recognized, less the discount recorded on the unguaranteed portion of the loan retained. If the transfer does not satisfy the aforementioned control criteria, the transaction is recorded as a secured borrowing with the transferred loans remaining on the Company’s consolidated balance sheet and proceeds recognized as a liability.

In accordance with SBA and USDA regulation, the Bank is required to retain 10% and 7.5% of the principal balance of any SBA 7(a) or USDA loan, respectively, comprised of unguaranteed dollars. With written consent from the SBA, the Bank may sell down to a 5% exposure comprised of unguaranteed dollars.

The Company occasionally transfers loans between the held for sale and held for investment classifications based on its intent and ability to hold or sell loans. Management’s intent to sell may be impacted by secondary market conditions, loan credit quality, or other factors.

The following summarizes the activity pertaining to loans held for sale for the years ended December 31, 2023 and 2022:

	2023	2022
Balance at beginning of year	\$ 554,610	\$ 1,116,519
Originations	877,083	1,042,061
Proceeds from sale	(1,362,803)	(1,067,758)
Gain on sale of loans	46,545	43,244
Principal collections, net of deferred fees and costs	(70,179)	(116,886)
Non-cash transfers, net	341,781	(462,570)
Balance at end of period	<u>\$ 387,037</u>	<u>\$ 554,610</u>

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Held for Investment

Loans and leases receivable that management has the intent and ability to hold for the foreseeable future or until maturity or pay-off are classified as held for investment and generally reported at their outstanding principal amount, net of unearned income unless the fair value option has been elected. For such loans not carried at fair value, loan origination fees and direct origination costs are deferred and recognized as an adjustment of the loan yield using the interest method. Discounts and premiums on any purchased loans are amortized to income using the interest method over the remaining period to contractual maturity, adjusted for anticipated prepayments. Interest income on loans and leases is recognized as earned on a daily accrual basis at the applicable interest rate.

Loans and leases designated as held for investment include those identified as more beneficial to hold for the long term as well as the required retention amount defined by the SBA and USDA. Loans and leases held for investment also consist of certain guaranteed and unguaranteed credits including nonaccrual, non-marketable, and risk grade 5 or worse as defined by internal risk rating metrics.

Nonaccrual and Past Due Loans

Past due status of loans and leases is determined based on contractual terms. Loans and leases are placed in nonaccrual status and the accrual of interest is discontinued if they become 90 days delinquent or there is evidence that the borrower's ability to make the required payments is not probable. When interest accrual is discontinued, all unpaid accrued interest is reversed against current interest income. Loans and leases, or portions thereof, are charged off when deemed uncollectible.

Allowance for Credit Losses

The ACL is a valuation account that is deducted from the amortized cost basis of loans and leases to present a net amount expected to be collected. The ACL is not applicable to loans held for sale and loans accounted for under the fair value option. Loans and leases are charged-off against the ACL when management believes the uncollectibility of a loan or lease balance is confirmed. Expected recoveries do not exceed the aggregate of amounts previously charged-off and expected to be charged-off.

The Company's ACL on loans and leases is estimated using relevant information, from internal and external sources, relating to past events, current conditions, and reasonable and supportable forecasts. As a result, the impact of loss mitigation strategies, such as loan modifications and restructurings, are captured in the estimates of LGD and PD. The Company's historical credit loss experience provides the basis for the estimation of expected credit losses.

The ACL is measured on a pooled basis using a quantitative modeling process when similar risk characteristics are present in the portfolio. The Company has identified pools based on industry, which aggregates into divisions, and whether the receivable is secured by real estate or another form of collateral. Additional information related to the portfolio segments can be found in Note 3. Loans and Leases Held for Investment and Credit Quality. Expected credit losses for pooled loans and leases are estimated using a DCF methodology for each loan which incorporates measurements of PD, LGD, prepayments, the estimated outstanding exposure at default ("EAD"), and the effective interest rate ("EIR"). PD rates are calculated using the number of defaults divided by the number of loans available to default for 1-year observation periods over the lifetime of data available for a certain pool. LGD rates are calculated by dividing the lifetime net charge-offs for each pool by the pool's average outstanding balance. PD and LGD rates are adjusted for forecasted national unemployment rates during a reasonable and supportable forecast period. Management has determined that four quarters represents a reasonable and supportable forecast period and adjusted loss rates revert back to a historical loss rate over four quarters on a straight-line basis. Expected losses are calculated as the product of PD, LGD, and EAD. Expected losses are discounted using the loan or lease EIR, adjusted for prepayments.

Management adjusts historical loss information for differences in current risk characteristics that are not considered within the quantitative modeling processes but are relevant in assessing the expected credit losses within the loan and lease pools. These qualitative factor adjustments generally increase management's estimate of expected credit losses based upon the estimated level of risk. The various risk factors considered in qualitative adjustments include risk grading, delinquency levels, pool age, portfolio mix and growth rates, and the status of servicing efforts which may be impacted by natural disasters or health pandemics. This evaluation is inherently subjective as it requires estimates that are susceptible to significant revision as more information becomes available.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Loans or leases that do not share risk characteristics are evaluated on an individual basis and are excluded from the pooled evaluation. This generally occurs when, based on current information and events, it is probable that the Company will be unable to collect all interest and principal payments due according to the originally contracted, or reasonably modified, terms of the loan or lease agreement. The Company has determined that loans and leases meeting the criteria defined below must be reviewed quarterly to determine if they should be evaluated for expected credit losses on an individual basis.

- All commercial loans and leases classified substandard or worse.
- Any loan or lease that is on nonaccrual, or any loan or lease that is delinquent greater than 90 days past due and still accruing interest.
- Prior to January 1, 2023, any loan or lease that was restructured with an interest rate concession and met the definition of a troubled debt restructuring (“TDR”).

The Company estimates reserves on individually evaluated loans and leases using a DCF methodology or through the evaluation of collateral values.

During the quarter ended September 30, 2021, management updated the Company’s policy for estimating expected credit losses on certain relationships that would otherwise meet the criteria for individual evaluation. Relationships with unguaranteed exposure of less than \$250 thousand are now collectively evaluated using an average of loss rates applied to individually evaluated relationships with unguaranteed exposure between \$250 thousand and \$1.0 million. The impact of this change on the ACL was not considered material.

Expected credit losses are estimated over the contractual term of the loan or lease, adjusted for expected prepayments when appropriate. The contractual term excludes expected extensions, renewals, and modifications unless management has a reasonable expectation at the reporting date that a modification will be executed with an individual borrower or the extension or renewal options are included in the contract at the reporting date and are not unconditionally cancellable by the Company.

When the ACL, for pooled or individually evaluated loans and leases, is estimated using the DCF method, the EIR used to discount expected cash flows is adjusted for expected prepayments.

When management determines that foreclosure is probable or when the borrower is experiencing financial difficulty at the reporting date and repayment is expected to be provided substantially through the operation or sale of the collateral, expected credit losses are based on the fair value of the collateral at the reporting date, adjusted for selling costs as appropriate.

Allowance for Off-Balance Sheet Credit Exposures

Expected credit losses on off-balance sheet credit exposures is estimated over the contractual period in which the Company is exposed to such losses, unless the obligation to extend credit is unconditionally cancellable. The estimate of off-balance sheet credit exposures includes consideration of the likelihood that funding will occur and an estimate of expected credit losses on commitments expected to be funded over its estimated losses. The estimate is influenced by historical loss experience, adjusted for current risk characteristics, and economic forecasts. The balance of the allowance for off-balance sheet credit exposures was \$4.8 million and \$1.5 million at December 31, 2023 and 2022, respectively, and is recorded in other expense in the consolidated statements of income and other liabilities in the consolidated balance sheets.

Equipment Leasing

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

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Direct Financing Leases

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

Operating Leases

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

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

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

The Company evaluates the carrying value of rental equipment for impairment whenever events or circumstances have occurred that would indicate the carrying amount may not be fully recoverable. If the carrying amount is not fully recoverable, an impairment loss is recognized to reduce the carrying amount to fair value. The Company determines fair value based upon the condition of the rental equipment and the projected net cash flows from its rental and sale considering current market conditions. During the years ended December 31, 2023 and December 31, 2021, the Company recognized impairment expense of \$499 thousand and \$904 thousand, respectively, related to rental equipment. No impairment expense was recorded during the year ended December 31, 2022.

Premises and Equipment

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

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

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Foreclosed Assets

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

Servicing Assets

All sales of loans are executed on a servicing retained basis. The standard SBA loan sale agreement is structured to provide the Company with a “servicing spread” paid from a portion of the interest cash flow of the loan. SBA regulations require the Bank to retain a portion of the cash flow from the interest payments received for a sold loan. The SBA retention requirement is at least 100 basis points in servicing spread while the Company's standard USDA loan sale agreement specifies a servicing spread of 40 basis points. The portion of the servicing spread that exceeds adequate compensation for the servicing function is recognized as a servicing asset, while any that is less is considered a servicing liability. Industry practice recognizes adequate compensation for servicing SBA and USDA loans as 25 basis points.

Servicing assets are recognized as separate assets measured at fair value when a loan is sold. The valuation model incorporates assumptions that market participants would use in estimating future net servicing income, such as adequate compensation for servicing, the discount rate, the custodial earnings rate, ancillary income, prepayment speeds and default rates and losses, with the prepayment speed and discount rate being the most sensitive assumptions. Servicing rights recognized through the sale of government guaranteed loans are carried at fair value as of the reporting date. Changes to fair value are reported in loan servicing asset revaluation in the consolidated statements of income. Servicing rights recognized through the sale of conventional loans are amortized over the period of estimated future net servicing life of the underlying assets and are evaluated quarterly for impairment by comparing the amortized cost to the estimated fair value.

Servicing fee income is recorded for fees earned for servicing loans. The fees are based on a contractual percentage of the outstanding principal or a fixed amount per loan and are recorded as income when earned.

Derivative Financial Instruments

Equity Warrant Assets

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

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

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

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Any changes in fair value from the grant date fair value of equity warrant assets classified as derivatives are recognized as increases or decreases to other assets on the consolidated balance sheets and as net gains or losses on derivative instruments, in other noninterest income, a component of consolidated net income. When a portfolio company is acquired, the Company may exercise these equity warrant assets for shares or cash.

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

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

Goodwill and Intangible Assets

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

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

As of December 31, 2023 and 2022, the Company had \$1.8 million of goodwill. The carrying amounts and accumulated amortization of all intangible assets as of December 31, 2023 was \$1.7 million and \$573 thousand, respectively, while at December 31, 2022 the balances were \$1.9 million and \$421 thousand, respectively. Intangible assets are almost entirely comprised of customer relationships that are being amortized using the straight-line method over 15 years.

The Company had no impairment charges related to business combinations in 2023, 2022 or 2021.

Long-Lived Assets Impairment Evaluation

The Company evaluates the carrying value of long-lived assets for impairment whenever events or circumstances have occurred that would indicate the carrying amount may not be fully recoverable. A key element in determining the recoverability of long-lived assets is the Company's outlook as to the future market conditions. If the carrying amount is not fully recoverable, an impairment loss is recognized to reduce the carrying amount to fair value.

Long-Lived Assets Reclassified to Held for Sale

During 2023, the Company determined retention of two of its aircraft, included in the Banking segment, was ineffective in serving the needs of an expanding nationwide customer base. As a result of this determination, the Company marketed the aircraft for sale and accordingly reclassified them from premises and equipment, net to other assets. The total amount reclassified out of premises and equipment, net was \$30.2 million. Prior to December 31, 2023, one aircraft was sold for a \$4.4 million gain and is reflected in the 2023 consolidated statement of income in other noninterest income with one aircraft remaining in other assets with a carrying amount of \$16.0 million at December 31, 2023. During 2021, an aircraft previously reclassified to held for sale was sold for a gain of \$114 thousand.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Common Stock

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

During 2022, 125,024 shares of Class B common stock (non-voting) were converted to Class A common stock (voting) in connection with private sales. This conversion decreased the value of Class B common stock (non-voting) and increased the value of Class A common stock (voting) by \$1.3 million.

Advertising Expense

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

Income Taxes

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

The Company uses the flow-through method of accounting for its solar investment tax credit investments, none of which qualify for proportional amortization. Under the flow-through method, investment tax credits are recognized as a reduction to income tax expense immediately in the period that the credit is generated, to the extent permitted by tax law. In accounting for any temporary difference that arise, the Company has elected the income statement method whereby deferred taxes are adjusted through income tax expense.

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

Comprehensive Income

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

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Stock Compensation Plans

The Company recognizes compensation cost based on the fair value of the equity instruments issued. The expense measures the cost of employee services received in exchange for stock options and restricted stock based on the grant-date fair value of the award and recognizes the cost over the vesting period for all awards within an individual grant, including ones with graded vesting features. The fair value of restricted stock awards or units with a market price condition and implied service period are calculated using the Monte Carlo Simulation method. The impact of forfeitures on stock-based compensation expense is recognized as forfeitures occur. See Note 12. Benefit Plans for further discussion and detail.

Fair Value of Financial Instruments

GAAP defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The Company determines the fair values of its financial instruments based on the fair value hierarchy established per GAAP which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. See Note 10. Fair Value of Financial Instruments for further discussion and detail.

Earnings Per Share

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

	December 31,		
	2023	2022	2021
Basic earnings per share:			
Net income	\$ 73,898	\$ 176,208	\$ 166,995
Weighted-average basic shares outstanding	44,353,708	43,862,291	43,169,935
Basic earnings per share	\$ 1.67	\$ 4.02	\$ 3.87
Diluted earnings per share:			
Net income, for diluted earnings per share	\$ 73,898	\$ 176,208	\$ 166,995
Total weighted-average basic shares outstanding	44,353,708	43,862,291	43,169,935
Add effect of dilutive stock options and restricted stock grants	741,171	1,044,019	1,901,369
Total weighted-average diluted shares outstanding	45,094,879	44,906,310	45,071,304
Diluted earnings per share	\$ 1.64	\$ 3.92	\$ 3.71
Anti-dilutive stock options and restricted shares	1,233,230	1,413,738	37,401

Revenue Recognition

The Company offers various services to customers that generate revenue. The Company does not typically enter into long-term revenue contracts with customers, and therefore, does not experience significant contract balances. Incremental costs of obtaining a contract are expensed when incurred when the amortization period is one year or less. As of December 31, 2023, 2022 and 2021, remaining performance obligations consisted primarily of service based revenues for contracts with an original expected length of two years or less.

Service based revenues are included in other noninterest income in the consolidated statements of income and consist of other recurring revenue streams from services provided by the Bank for advisory and successful transactions, GLS to its clients for settlement, accounting and valuation for government guaranteed loan sales and holdings, fund investment advisory services performed by Canapi Advisors, and investment management and financial planning services provided by Live Oak Private Wealth.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Service Based Revenues

In addition to lending and related activities, the Bank's specialized industry teams also provide advisory services to certain Government Contracting clients. Performance obligations are satisfied over the contract period and revenue is recognized monthly. In 2021, the Company stopped offering advisory services to new Government Contracting clients.

GLS provides services when requested by clients. Each requested service represents a specific performance obligation with a transaction price outlined by GLS' fee schedule. Revenue is recognized as the requested services are completed and payment is generally received the following month.

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

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

Reclassifications

During the third quarter of 2023, management reclassified all Search Fund Lending loans from the Specialty Lending division to the Small Business Banking division to better align with the underlying risk characteristics and management's methods for managing the Sponsor Finance business. This resulted in a reclassification of \$297.2 million between loan classes as of December 31, 2022.

Recent Accounting Pronouncements

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

In March 2020, the FASB issued Accounting Standards Update ("ASU") No. 2020-04 "Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting" ("ASU 2020-04"). ASU 2020-04 provides optional guidance for a limited period of time to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting. In December 2022, ASU 2022-06 "Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848" was issued deferring the sunset date of Topic 848. As subsequently amended, the ASU can be adopted by the Company through December 31, 2024. The Company does not believe these standards will have a material impact on its consolidated financial statements. To address the discontinuance of LIBOR, the Company has stopped originating variable LIBOR-based loans effective December 31, 2021 and has started to negotiate loans using the preferred replacement index, the Secured Overnight Financing Rate ("SOFR") or a relevant duration U.S. Treasury rate. As of December 31, 2023, the Company has transitioned nearly all its LIBOR-based loan exposure to an alternative index. The remaining LIBOR-based loans will transition to an alternative index at their next repricing date.

In March 2022, the FASB issued ASU No. 2022-02 "Financial Instruments – Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures" ("ASU 2022-02"). ASU 2022-02 eliminates the accounting guidance for TDRs by creditors in ASC 310-40, *Receivables – Troubled Debt Restructurings by Creditors*, while enhancing disclosure requirements for certain loan refinancings and restructurings when a borrower is experiencing financial difficulty. Additionally, for public business entities, ASU 2022-02 requires that an entity disclose current-period gross write-offs by year of origination for financing receivables and net investments in leases within the scope of ASC 326-20, *Financial Instruments – Credit Losses – Measured at Amortized Cost*. The Company adopted the standard on January 1, 2023 using the modified retrospective method resulting in a net increase to retained earnings of \$676 thousand.

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

In June 2022, the FASB issued ASU No. 2022-03 “Fair Value Measurement (Topic 820) Fair Value Measurement of Equity Securities Subject to Contractual Restrictions” (“ASU 2022-03”). ASU 2022-03 indicates a contractual sale restriction on equity securities should not be considered in measuring fair value, however, disclosure should be made about such restrictions. The amendments in this standard will be effective for the Company on January 1, 2024. The Company does not believe this standard will have a material impact on its consolidated financial statements.

In March 2023, the FASB issued ASU No. 2023-02 “Investments-Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method” (“ASU 2023-02”). ASU 2023-02 permits companies to account for tax equity investments, regardless of the tax credit program from which the income tax credits are received, using the proportional amortization method if certain conditions are met. The amendments in this standard will be effective for the Company on January 1, 2024. The Company does not believe this standard will have a material impact on its consolidated financial statements.

In October 2023, the FASB issued ASU No. 2023-06 “Disclosure Improvements - Codification Amendments in Response to the SEC’s Disclosure Update and Simplification Initiative” (“ASU 2023-06”). ASU 2023-06 amends the ASC to incorporate certain disclosure requirements from SEC Release No. 33-10532 - Disclosure Update and Simplification that was issued in 2018. The effective date for each amendment will be the date on which the SEC’s removal of that related disclosure from Regulation S-X or Regulation S-K becomes effective, with early adoption prohibited. The Company does not believe this standard will have a material impact on its consolidated financial statements.

In November 2023, the FASB issued ASU No. 2023-07 “Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures” (“ASU 2023-07”). ASU 2023-07 improves reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. The amendments in this standard will be effective for the Company for the fiscal year ended December 31, 2024 and subsequent interim periods. The amendments will be applied retrospectively to all prior periods in the consolidated financial statements. The Company is currently evaluating the impact the amendments will have on the consolidated financial statements and related disclosures.

In December 2023, the FASB issued ASU No. 2023-09 “Income Taxes (Topic 740): Improvements to Income Tax Disclosures” (“ASU 2023-09”). ASU 2023-09 requires enhanced income tax disclosures primarily related to the rate reconciliation and income taxes paid information to provide more transparency by requiring (i) consistent categories and greater disaggregation of information in the rate reconciliation table and (ii) income taxes paid, net of refunds, to be disaggregated by jurisdiction based on an established threshold. The amendments in this standard will be effective for the Company on January 1, 2025. The Company is currently evaluating the impact the amendments will have the consolidated financial statements and related disclosures.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Note 2. Securities

Available-for-Sale

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

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
December 31, 2023				
U.S. government agencies	\$ 17,809	\$ 2	\$ 282	\$ 17,529
Mortgage-backed securities	1,216,624	466	111,498	1,105,592
Municipal bonds	3,200	—	161	3,039
Total	\$ 1,237,633	\$ 468	\$ 111,941	\$ 1,126,160
December 31, 2022				
U.S. government agencies	\$ 16,080	\$ —	\$ 412	\$ 15,668
Mortgage-backed securities	1,116,387	270	121,083	995,574
Municipal bonds	3,223	—	246	2,977
Other debt securities	500	—	—	500
Total	\$ 1,136,190	\$ 270	\$ 121,741	\$ 1,014,719

During the year ended December 31, 2023, three securities totaling \$13.0 million were called and four securities totaling \$7.0 million were settled. During the year ended December 31, 2022, two securities totaling \$7.5 million matured and twenty securities totaling \$36.5 million were settled. During the year ended December 31, 2021, one security totaling \$5.0 million matured and twelve securities totaling \$33.1 million were settled.

The following tables show debt securities available-for-sale in an unrealized loss position for which an allowance for credit losses has not been recorded, aggregated by investment category and length of time that the individual securities have been in a continuous unrealized loss position.

	Less Than 12 Months		12 Months or More		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
December 31, 2023						
U.S. government agencies	\$ —	\$ —	\$ 15,057	\$ 282	\$ 15,057	\$ 282
Mortgage-backed securities	138,823	3,431	886,699	108,067	1,025,522	111,498
Municipal bonds	—	—	3,039	161	3,039	161
Total	\$ 138,823	\$ 3,431	\$ 904,795	\$ 108,510	\$ 1,043,618	\$ 111,941
December 31, 2022						
U.S. government agencies	\$ 15,668	\$ 412	\$ —	\$ —	\$ 15,668	\$ 412
Mortgage-backed securities	513,639	29,060	456,972	92,023	970,611	121,083
Municipal bonds	2,884	241	93	5	2,977	246
Total	\$ 532,191	\$ 29,713	\$ 457,065	\$ 92,028	\$ 989,256	\$ 121,741

At December 31, 2023, there were 409 mortgage-backed securities, five U.S. government agencies and two municipal bonds in unrealized loss positions for greater than 12 months. There were 27 mortgage-backed securities in unrealized loss positions for less than 12 months. Unrealized losses at December 31, 2022 consisted of 185 mortgage-backed securities and one municipal bond for greater than 12 months. There were 236 mortgage-backed securities, five U.S. government agencies, and one municipal bond in unrealized loss positions for less than 12 months.

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

These unrealized losses are primarily the result of non-credit-related volatility in the market and market interest rates. Since none of the unrealized losses relate to the issuer's ability to honor redemption obligations, and the Company does not intend to sell the related securities and does not believe it is more likely than not that it will be required to sell the securities before recovery of amortized cost, none of the losses have been recognized in the Company's consolidated statement of income.

All mortgage-backed securities in the Company's portfolio at December 31, 2023 and 2022 were backed by U.S. government sponsored enterprises ("GSEs").

The following is a summary of investment securities by maturity:

	December 31, 2023	
	Available-for-sale	
	Amortized Cost	Fair Value
U.S. government agencies		
Within one year	\$ 3,000	\$ 2,976
One to five years	12,430	12,218
Five to ten years	2,379	2,335
Total	17,809	17,529
Mortgage-backed securities		
Within one year	12,358	12,319
One to five years	179,740	170,908
Five to ten years	240,665	216,013
After 10 years	783,861	706,352
Total	1,216,624	1,105,592
Municipal bonds		
Five to ten years	3,103	2,954
After 10 years	97	85
Total	3,200	3,039
Total	\$ 1,237,633	\$ 1,126,160

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

There were no investment securities pledged at December 31, 2023 or 2022.

Equity Investments

Equity investments, largely comprised of non-marketable equity investments, are generally accounted for under either the equity method or equity security accounting. The below tables provide additional information related to investments accounted for under these two methods.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Equity Method Accounting

The carrying amount and ownership percentage of each equity method investment at December 31, 2023 and 2022 is reflected in the following table:

	2023		2022	
	Amount	Ownership %	Amount	Ownership %
Apiture, Inc.	\$ 60,682	40.4 %	\$ 60,320	40.3 %
Canapi Ventures SBIC Fund, LP ^{(1) (5) (8)}	18,190	2.9	19,246	2.9
Canapi Ventures Fund, LP ^{(2) (5) (9)}	2,267	1.5	2,382	1.5
Canapi Ventures Fund II, LP ^{(3) (5) (9)}	7,232	1.6	7,412	1.6
Canapi Ventures SBIC Fund II, LP ^{(4) (5) (8)}	7,611	2.9	7,981	3.7
Other investments in fintech private companies ⁽⁶⁾	—	—	241	4.3
Other ^{(7) (8)}	22,932	Various	12,476	Various
Total	<u>\$ 118,914</u>		<u>\$ 110,058</u>	

- (1) Includes unfunded commitments of \$5.0 million and \$5.5 million as of December 31, 2023 and 2022, respectively.
- (2) Includes unfunded commitments of \$559 thousand and \$617 thousand as of December 31, 2023 and 2022, respectively.
- (3) Includes unfunded commitments of \$6.3 million and \$6.9 million as of December 31, 2023 and 2022, respectively.
- (4) Includes unfunded commitments of \$7.1 million and \$7.5 million as of December 31, 2023 and 2022, respectively.
- (5) Investee is accounted for under equity method due to the Company's participation as an investment advisor.
- (6) As of December 31, 2022, Other Fintech investments included Kwipped, Inc. As of December 31, 2023, the investment has been moved to equity security as the preferred shares do not qualify as in-substance common stock.
- (7) As of December 31, 2023, Other investments include low income housing tax credit ("LIHTC") in Estrella Landing Apartments, LLC ("Estrella Landing"), in which the company holds a 99.9% limited member interest. Also included in Other investments are solar income tax credit investments in Green Sun Tenant, LLC ("Green Sun"), SVA 2021-2 TE Holdco, LLC ("Sun Vest"), EG5 CSP1 Holding, LLC ("HEP") and HRE MM I, LLC ("Heelstone"), which the Company holds a 99.0% limited member interest in all investments. Also included are Cape Fear Collective Impact Opportunity 1, LLC ("Cape Fear Collective"), Cape Fear Collective Impact Opportunity 2, LLC ("Cape Fear Collective 2") and OTR Fund I, LLC ("OTR") which the Company holds 91.0%, 32.3%, and 11.5% of limited member interests, respectively. As of December 31, 2023, there was an unfunded commitment of \$7.7 million for Estrella Landing. As of December 31, 2022, Other investments include Green Sun, Sun Vest, and HEP, which the Company holds a 99.0% limited member interest in all investments. Also included within Other investments are Cape Fear Collective and Cape Fear Collective 2, which the Company holds 99.0% and 32.3% of limited member interests, respectively. As of December 31, 2022 an unfunded commitment of \$2.6 million was recorded as a liability for HEP, and as of December 31, 2023, this commitment has been funded. Managing control of the above investments resides with the managing members.
- (8) Investments reported in Banking segment.
- (9) Investments reported in Other segment.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Equity Security Accounting

The carrying amount of the Company's investments in non-marketable equity securities with no readily determinable fair value and amounts recognized in earnings on a cumulative basis as of December 31, 2023 and for the years ended December 31, 2023, 2022 and 2021 is reflected in the following table:

	Cumulative Adjustments	2023	2022	2021
Carrying value ⁽¹⁾		\$ 77,825	\$ 76,438	\$ 63,321
Carrying value adjustments:				
Impairment	\$ —	—	—	—
Upward changes for observable prices ⁽²⁾	50,492	—	2,022	30,197
Downward changes for observable prices	(1,610)	(1,524)	—	—
Net upward (downward) change	<u>\$ 48,882</u>	<u>\$ (1,524)</u>	<u>\$ 2,022</u>	<u>\$ 30,197</u>

- (1) Includes \$2.3 million, \$3.0 million and \$2.8 million in unfunded commitments for the years ended December 31, 2023, 2022 and 2021, respectively.
- (2) Cumulative adjustments excludes \$13.9 million in realized cash gains for the sale of an investment in the second quarter of 2021.

For the twelve months ended December 31, 2023, 2022 and 2021, the Company recognized unrealized (losses) gains on all equity securities still held at the reporting date of \$(1.5) million, \$1.9 million, and \$44.0 million, respectively.

Variable Interest Entities

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

Solar Renewable Energy Tax Credit Investments

The Company has equity interests in several limited liability companies that own and operate solar renewable energy projects which are accounted for as equity method investments. Over the course of the investments, the Company will receive federal and state tax credits, tax-related benefits, and excess cash available for distribution, if any. The Company may be called to sell its interest in the limited partnerships through a call option once all investment tax credits have been recognized.

Affordable Housing

The Company has an equity investment in a limited liability company LIHTC that qualifies as an affordable housing project, managed by an unrelated general partner. The Company accounts for the investment under the proportional amortization method. Under this method an entity amortizes the initial cost of the investment in proportion to the tax credits and other tax benefits received and recognizes the net investment performance as a component of income tax expense. The Company also has equity interests in two limited liability companies that invest in the acquisition, rehabilitation, or new construction of local qualified housing projects which are accounted for as equity method investments.

Canapi Funds

The Company's limited partnership investments in the Canapi Funds focus on providing venture capital to new and emerging financial technology companies. After initial commitment and over the course of the investment period, the Company will make capital contributions and receive profit and return of capital distributions as a result of fund performance until the funds wind down.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Non-marketable and Other Equity Investments

The Company also has limited interests in several non-marketable funds, including Small Business Investment Company (“SBIC”) and venture capital funds, which are accounted for as equity security investments. After the initial commitment and over the course of the investment period, the Company will make capital contributions and receive profit and return of capital distributions as a result of fund performance until the funds wind down. While the partnership agreements allow the Company to remove the general partner, this right is not deemed to be substantive as the general partner can only be removed for cause. All investments are generally non-redeemable and distributions are expected to be received through the liquidation of the underlying investments throughout the life of the investment fund. Investments may only be sold or transferred subject to the notice and approval provisions of the underlying investment agreement.

The above investments meet the criteria of a VIE, however, the Company is not the primary beneficiary of the entities, as it does not have the power to direct the activities that most significantly impact the economic performance of the entities.

The Company’s investment in the unconsolidated VIEs are carried in other assets and the Company’s unfunded capital and other commitments related to the unconsolidated VIEs are carried in other liabilities on the consolidated balance sheets.

The Company’s maximum exposure to loss from unconsolidated VIEs includes the investment recorded on the Company’s consolidated balance sheets. For solar tax credit investments, the balance sheet figures are net of any impairment recognized, and includes previously recorded tax credits which remain subject to recapture by taxing authorities based on compliance features required to be met at the project level. While the Company believes the potential for loss from these investments is remote, the maximum exposure for solar tax credit investments was determined by assuming a scenario where related tax credits were recaptured.

The following table provides a summary of the VIEs that the Company has not consolidated as of December 31, 2023 and 2022:

December 31, 2023	Carrying Amount	Maximum Exposure to Loss	Liability Recognized	Classification
Solar tax credit investments	\$ 6,714	\$ 38,228	\$ —	Other assets ⁽¹⁾
Affordable housing	15,611	15,611	7,715	Other assets & other liabilities ⁽²⁾
Canapi Funds	35,300	35,300	18,930	Other assets & other liabilities
Non-marketable and other equity investments	8,840	8,840	2,321	Other assets & other liabilities

December 31, 2022	Carrying Amount	Maximum Exposure to Loss	Liability Recognized	Classification
Solar tax credit investments	\$ 5,221	\$ 24,295	\$ 2,641	Other assets & other liabilities ⁽³⁾
Affordable housing	7,255	7,255	—	Other assets
Canapi Funds	37,021	37,021	20,474	Other assets & other liabilities
Non-marketable and other equity investments	8,509	8,509	3,033	Other assets & other liabilities

- (1) Maximum exposure to loss represents \$6.7 million of current investments and a scenario in which \$31.5 million in related tax credits are recaptured.
- (2) Maximum exposure to loss represents \$15.6 million of investments. As there are no tax credits allocated in the current year, there is no increase to the maximum exposure to loss related to recaptured tax credits on the \$8.8 million LIHTC investment.
- (3) Maximum exposure to loss represents \$5.2 million of current investments and a scenario in which related tax credits are recaptured, collectively totaling \$19.1 million.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Note 3. Loans and Leases Held for Investment and Credit Quality

Loan and Lease Portfolio Segments & Classes

The following describes the risk characteristics relevant to each of the portfolio segments.

Commercial and Industrial

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

Construction and Development

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

Commercial Real Estate

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

Commercial Land

Commercial land loans are extensions of credit secured by farmland. Such loans are often for land improvements related to agricultural endeavors that may include construction of new specialized facilities. These loans are usually repaid through the conversion to permanent financing, or if scheduled loan amortization begins, for the long-term benefit of the borrower’s ongoing operations. Underwriting generally involves intensive analysis of the financial strength of the borrower and guarantor, liquidation value of the subject collateral, and any available secondary sources of repayment, with the greatest emphasis given to a borrower’s capacity to meet cash flow coverage requirements as set forth by Bank policies.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

The loan and lease portfolio is further grouped into one of the following classes (also referred to as divisions): Small Business Banking, Specialty Lending, Energy & Infrastructure (“E&I”), or Paycheck Protection Program. Small Business Banking includes loans to customers in verticals that generally have traditional loan structures. Specialty Lending includes loans to customers in verticals that generally have atypical ownership structures as well as complex collateral arrangements, underwriting requirements, and servicing needs. E&I includes loans to customers that operate renewable energy projects, lodging facilities, and municipalities. E&I loans often utilize USDA or tax-exempt loan structures. Paycheck Protection Program (“PPP”) includes all loans originated under the PPP pursuant to the Coronavirus Aid, Relief, and Economic Security Act’s (“CARES Act”) economic relief program and carry a 100% government guarantee. These loans and lease classes were determined based on industry risk characteristics and management’s method for monitoring credit risk and managing those lending divisions.

Past Due Loans and Leases

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

December 31, 2023	Current or Less than 30 Days Past Due	30-89 Days Past Due	90 Days or More Past Due	Total Past Due	Total Carried at Amortized Cost	Loans Accounted for Under the Fair Value Option ⁽¹⁾	Total Loans and Leases
Commercial & Industrial							
Small Business Banking	\$ 2,075,227	\$ 16,570	\$ 33,366	\$ 49,936	\$ 2,125,163	\$ 151,887	\$ 2,277,050
Specialty Lending	1,131,493	—	—	—	1,131,493	7,829	1,139,322
Energy & Infrastructure	842,907	2,806	4,044	6,850	849,757	46,185	895,942
Paycheck Protection Program	5,595	—	—	—	5,595	—	5,595
Total	4,055,222	19,376	37,410	56,786	4,112,008	205,901	4,317,909
Construction & Development							
Small Business Banking	413,349	1,745	—	1,745	415,094	—	415,094
Specialty Lending	47,419	—	—	—	47,419	—	47,419
Energy & Infrastructure	7,541	—	—	—	7,541	—	7,541
Total	468,309	1,745	—	1,745	470,054	—	470,054
Commercial Real Estate							
Small Business Banking	2,414,677	18,589	32,310	50,899	2,465,576	127,358	2,592,934
Specialty Lending	511,712	—	12,032	12,032	523,744	—	523,744
Energy & Infrastructure	158,613	—	3,072	3,072	161,685	17,751	179,436
Total	3,085,002	18,589	47,414	66,003	3,151,005	145,109	3,296,114
Commercial Land							
Small Business Banking	531,331	1,521	1,910	3,431	534,762	37,026	571,788
Total	531,331	1,521	1,910	3,431	534,762	37,026	571,788
Total	<u>\$ 8,139,864</u>	<u>\$ 41,231</u>	<u>\$ 86,734</u>	<u>\$ 127,965</u>	<u>\$ 8,267,829</u>	<u>\$ 388,036</u>	<u>\$ 8,655,865</u>
Retained Loan Discount and Net Deferred Costs							<u>\$ (22,018)</u>
Loan and Leases, Net							<u>\$ 8,633,847</u>
Guaranteed Balance	\$ 2,877,105	\$ 29,183	\$ 61,107	\$ 90,290	\$ 2,967,395	\$ 66,299	\$ 3,033,694
% Guaranteed	35.3%	70.8%	70.5%	70.6%	35.9%	17.1%	35.0%

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

December 31, 2022	Current or Less than 30 Days Past Due	30-89 Days Past Due	90 Days or More Past Due	Total Past Due	Total Carried at Amortized Cost	Loans Accounted for Under the Fair Value Option (1)	Total Loans and Leases
Commercial & Industrial							
Small Business Banking	\$ 1,987,508	\$ 21,987	\$ 16,487	\$ 38,474	\$ 2,025,982	\$ 195,856	\$ 2,221,838
Specialty Lending	754,272	—	—	—	754,272	15,576	769,848
Energy & Infrastructure	420,447	—	3,082	3,082	423,529	50,094	473,623
Paycheck Protection Program	13,134	—	—	—	13,134	—	13,134
Total	3,175,361	21,987	19,569	41,556	3,216,917	261,526	3,478,443
Construction & Development							
Small Business Banking	471,243	1,500	—	1,500	472,743	—	472,743
Specialty Lending	104,069	—	—	—	104,069	—	104,069
Energy & Infrastructure	13,753	—	—	—	13,753	—	13,753
Total	589,065	1,500	—	1,500	590,565	—	590,565
Commercial Real Estate							
Small Business Banking	2,149,662	12,082	5,771	17,853	2,167,515	168,409	2,335,924
Specialty Lending	306,785	—	—	—	306,785	236	307,021
Energy & Infrastructure	136,706	—	3,072	3,072	139,778	22,123	161,901
Total	2,593,153	12,082	8,843	20,925	2,614,078	190,768	2,804,846
Commercial Land							
Small Business Banking	429,014	1,663	1,917	3,580	432,594	42,164	474,758
Total	429,014	1,663	1,917	3,580	432,594	42,164	474,758
Total	<u>\$ 6,786,593</u>	<u>\$ 37,232</u>	<u>\$ 30,329</u>	<u>\$ 67,561</u>	<u>\$ 6,854,154</u>	<u>\$ 494,458</u>	<u>\$ 7,348,612</u>
Retained Loan Discount and Net Deferred Costs							\$ (4,434)
Loan and Leases, Net							<u>\$ 7,344,178</u>
Guaranteed Balance	\$ 2,657,770	\$ 20,199	\$ 26,026	\$ 46,225	\$ 2,703,995	\$ 67,268	\$ 2,771,263
% Guaranteed	39.2%	54.3%	85.8%	68.4%	39.5%	13.6%	37.7%

(1) Retained portions of government guaranteed loans sold prior to January 1, 2021 are carried at fair value under FASB ASC Subtopic 825-10, *Financial Instruments: Overall*. See Note 10. Fair Value of Financial Instruments for additional information.

Credit Quality Indicators

The Bank uses internal loan and lease reviews to assess the performance of individual loans and leases. Each loan and lease is assigned a risk grade during the origination and closing process. Subsequent to origination, loans and lease risk grades are continually evaluated as information becomes available. The Bank performs an annual review of each borrower's financial performance to validate the accuracy of the assigned risk grade. Additionally, the loan and lease portfolio is subject to annual independent review by an external firm.

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

Exceptional (1 Rated): These loans and leases are of the highest quality, with strong, well-documented sources of repayment. These loans and leases will typically have multiple demonstrated sources of repayment with no significant identifiable risk to collection, exhibit well-qualified management, and have liquid financial statements relative to both direct and indirect obligations.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

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

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

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

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

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

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

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

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

The following tables present credit quality indicators by portfolio class:

December 31, 2023	Term Loans and Leases Amortized Cost Basis by Origination Year						Revolving Loans Amortized Cost Basis	Revolving Loans Converted to Term	Total ⁽¹⁾
	2023	2022	2021	2020	2019	Prior			
Small Business Banking									
Risk Grades 1 - 4	\$ 990,349	\$1,470,824	\$1,255,664	\$ 660,926	\$ 363,377	\$ 296,132	\$ 63,963	\$ 11,047	\$5,112,282
Risk Grade 5	7,744	72,913	60,115	37,390	42,095	50,705	7,174	1,407	279,543
Risk Grades 6 - 8	2,286	31,487	29,636	35,611	18,429	28,700	2,621	—	148,770
Total	1,000,379	1,575,224	1,345,415	733,927	423,901	375,537	73,758	12,454	5,540,595
Specialty Lending									
Risk Grades 1 - 4	640,596	337,880	226,170	21,286	9,103	112	210,460	58,441	1,504,048
Risk Grade 5	8,858	52,767	35,453	43,080	9,223	—	20,547	5,417	175,345
Risk Grades 6 - 8	—	—	12,032	—	—	—	7,203	4,028	23,263
Total	649,454	390,647	273,655	64,366	18,326	112	238,210	67,886	1,702,656
Energy & Infrastructure									
Risk Grades 1 - 4	386,421	223,309	120,917	41,919	50,035	23,308	14,818	—	860,727
Risk Grade 5	—	—	104,371	13,485	7,827	18,627	—	—	144,310
Risk Grades 6 - 8	—	4,024	6,303	3,619	—	—	—	—	13,946
Total	386,421	227,333	231,591	59,023	57,862	41,935	14,818	—	1,018,983
Paycheck Protection Program									
Risk Grades 1 - 4	—	—	2,831	2,764	—	—	—	—	5,595
Total	—	—	2,831	2,764	—	—	—	—	5,595
Total	<u>\$2,036,254</u>	<u>\$2,193,204</u>	<u>\$1,853,492</u>	<u>\$ 860,080</u>	<u>\$ 500,089</u>	<u>\$ 417,584</u>	<u>\$ 326,786</u>	<u>\$ 80,340</u>	<u>\$8,267,829</u>
Year-To-Date Gross Charge-offs									
Small Business Banking	\$ —	\$ 5,621	\$ 6,435	\$ 1,058	\$ 1,225	\$ 525	\$ 1,097	\$ —	\$ 15,961
Specialty Lending	—	—	—	—	—	—	7,966	—	7,966
Total	<u>\$ —</u>	<u>\$ 5,621</u>	<u>\$ 6,435</u>	<u>\$ 1,058</u>	<u>\$ 1,225</u>	<u>\$ 525</u>	<u>\$ 9,063</u>	<u>\$ —</u>	<u>\$ 23,927</u>

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

December 31, 2022	Term Loans and Leases Amortized Cost Basis by Origination Year						Revolving Loans Amortized Cost Basis	Revolving Loans Converted to Term	Total ⁽¹⁾
	2022	2021	2020	2019	2018	Prior			
Small Business Banking									
Risk Grades 1 - 4	\$1,499,309	\$1,490,346	\$ 857,380	\$ 438,907	\$ 224,199	\$ 204,933	\$ 75,005	\$ 1,773	\$4,791,852
Risk Grade 5	15,942	22,295	45,541	46,655	30,523	27,212	15,549	452	204,169
Risk Grades 6 - 8	1,806	8,777	18,261	29,047	14,260	27,215	2,688	759	102,813
Total	1,517,057	1,521,418	921,182	514,609	268,982	259,360	93,242	2,984	5,098,834
Specialty Lending									
Risk Grades 1 - 4	562,952	266,165	82,812	13,343	268	788	143,512	31,469	1,101,309
Risk Grade 5	7,341	28,722	6,990	9,258	—	—	4,280	—	56,591
Risk Grades 6 - 8	—	6,933	—	—	—	—	293	—	7,226
Total	570,293	301,820	89,802	22,601	268	788	148,085	31,469	1,165,126
Energy & Infrastructure									
Risk Grades 1 - 4	199,338	176,855	39,600	51,190	23,374	19,694	12,751	351	523,153
Risk Grade 5	4,024	4,409	500	6,976	4,706	5,142	—	—	25,757
Risk Grades 6 - 8	—	3,082	16,589	—	8,479	—	—	—	28,150
Total	203,362	184,346	56,689	58,166	36,559	24,836	12,751	351	577,060
Paycheck Protection Program									
Risk Grades 1 - 4	—	7,421	5,713	—	—	—	—	—	13,134
Total	—	7,421	5,713	—	—	—	—	—	13,134
Total	<u>\$2,290,712</u>	<u>\$2,015,005</u>	<u>\$1,073,386</u>	<u>\$ 595,376</u>	<u>\$ 305,809</u>	<u>\$ 284,984</u>	<u>\$ 254,078</u>	<u>\$ 34,804</u>	<u>\$6,854,154</u>

(1) Excludes \$388.0 million and \$494.5 million of loans accounted for under the fair value option as of December 31, 2023 and December 31, 2022, respectively.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

The following tables present guaranteed and unguaranteed loan and lease balances by asset quality indicator:

December 31, 2023	Loan and Lease Balance ⁽¹⁾	Guaranteed Balance	Unguaranteed Balance	% Guaranteed
Risk Grades 1 - 4	\$ 7,482,652	\$ 2,622,558	\$ 4,860,094	35.0 %
Risk Grade 5	599,198	234,845	364,353	39.2
Risk Grades 6 - 8	185,979	109,992	75,987	59.1
Total	\$ 8,267,829	\$ 2,967,395	\$ 5,300,434	35.9 %

December 31, 2022	Loan and Lease Balance ⁽¹⁾	Guaranteed Balance	Unguaranteed Balance	% Guaranteed
Risk Grades 1 - 4	\$ 6,429,448	\$ 2,508,229	\$ 3,921,219	39.0 %
Risk Grade 5	286,517	115,573	170,944	40.3
Risk Grades 6 - 8	138,189	80,193	57,996	58.0
Total	\$ 6,854,154	\$ 2,703,995	\$ 4,150,159	39.5 %

(1) Excludes \$388.0 million and \$494.5 million of loans accounted for under the fair value option as of December 31, 2023 and 2022, respectively.

Nonaccrual Loans and Leases

As of December 31, 2023 and December 31, 2022 there were no loans greater than 90 days past due and still accruing. There was no interest income recognized on nonaccrual loans and leases during the twelve months ended December 31, 2023 and 2022. Nonaccrual loans and leases are generally included in the held for investment portfolio. Accrued interest receivable on loans totaled \$63.5 million and \$46.5 million at December 31, 2023 and December 31, 2022, respectively, and is included in other assets in the accompanying consolidated balance sheets.

Nonaccrual loans and leases as of December 31, 2023 and December 31, 2022 are as follows:

December 31, 2023	Loan and Lease Balance ⁽¹⁾	Guaranteed Balance	Unguaranteed Balance	Unguaranteed Exposure with No ACL
Commercial & Industrial				
Small Business Banking	\$ 47,558	\$ 39,018	\$ 8,540	\$ 407
Energy & Infrastructure	6,850	2,794	4,056	2,546
Total	54,408	41,812	12,596	2,953
Construction & Development				
Small Business Banking	1,745	1,309	436	—
Total	1,745	1,309	436	—
Commercial Real Estate				
Small Business Banking	57,140	44,426	12,714	8,199
Specialty Lending	12,032	—	12,032	12,032
Energy & Infrastructure	3,072	2,799	273	—
Total	72,244	47,225	25,019	20,231
Commercial Land				
Small Business Banking	6,566	5,332	1,234	194
Total	6,566	5,332	1,234	194
Total	\$ 134,963	\$ 95,678	\$ 39,285	\$ 23,378

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

December 31, 2022	Loan and Lease Balance ⁽¹⁾	Guaranteed Balance	Unguaranteed Balance	Unguaranteed Exposure with No ACL
Commercial & Industrial				
Small Business Banking	\$ 25,968	\$ 19,686	\$ 6,282	\$ 407
Energy & Infrastructure	3,082	2,794	288	288
Total	29,050	22,480	6,570	695
Commercial Real Estate				
Small Business Banking	34,520	23,830	10,690	3,611
Energy & Infrastructure	3,072	2,799	273	—
Total	37,592	26,629	10,963	3,611
Commercial Land				
Small Business Banking	6,750	5,499	1,251	196
Total	6,750	5,499	1,251	196
Total	\$ 73,392	\$ 54,608	\$ 18,784	\$ 4,502

(1) Excludes loans accounted for under the fair value option. See Note 10. Fair Value of Financial Instruments for additional information.

When a loan or lease is placed on nonaccrual status, any accrued interest is reversed from loan interest income. The following table summarizes the amount of accrued interest reversed during the periods presented:

	Twelve Months Ended December 31,	
	2023	2022
Commercial & Industrial	\$ 2,212	\$ 619
Commercial Real Estate	1,041	833
Commercial Land	—	127
Construction & Development	56	—
Total	\$ 3,309	\$ 1,579

The following tables present the amortized cost basis of collateral-dependent loans and leases which are individually evaluated to determine expected credit losses, as of December 31, 2023 and 2022:

December 31, 2023	Total Collateral-Dependent Loans			Unguaranteed Portion			Allowance for Credit Losses
	Real Estate	Business Assets	Other	Real Estate	Business Assets	Other	
Commercial & Industrial							
Small Business Banking	\$ 2,737	\$ 2,426	\$ —	\$ 421	\$ 547	\$ —	\$ 277
Specialty Lending	—	4,711	—	—	4,711	—	—
Energy & Infrastructure	—	3,022	—	—	227	—	—
Total	2,737	10,159	—	421	5,485	—	277
Commercial Real Estate							
Small Business Banking	21,211	—	—	6,298	—	—	—
Total	21,211	—	—	6,298	—	—	—
Commercial Land							
Small Business Banking	1,735	—	—	200	—	—	—
Total	1,735	—	—	200	—	—	—
Total	\$ 25,683	\$ 10,159	\$ —	\$ 6,919	\$ 5,485	\$ —	\$ 277

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

	Total Collateral-Dependent Loans			Unguaranteed Portion			Allowance for Credit Losses
	Real Estate	Business Assets	Other	Real Estate	Business Assets	Other	
December 31, 2022							
Commercial & Industrial							
Small Business Banking	\$ 2,730	\$ 371	\$ —	\$ 414	\$ 371	\$ —	\$ 291
Energy & Infrastructure	16,378	—	—	13,583	—	—	—
Total	19,108	371	—	13,997	371	—	291
Commercial Real Estate							
Small Business Banking	15,286	—	—	6,440	—	—	152
Total	15,286	—	—	6,440	—	—	152
Commercial Land							
Small Business Banking	1,743	—	—	202	—	—	—
Total	1,743	—	—	202	—	—	—
Total	\$ 36,137	\$ 371	\$ —	\$ 20,639	\$ 371	\$ —	\$ 443

Allowance for Credit Losses – Loans and Leases

The Company maintains the ACL at levels management believes represents the future expected credit losses in the loan and lease portfolios as of the balance sheet date. See Note 1. Organization and Summary of Significant Accounting Policies for a description of the methodologies used to estimate credit losses.

The following tables detail activity in the allowance for credit losses for the periods presented:

	Commercial & Industrial	Construction & Development	Commercial Real Estate	Commercial Land	Total
December 31, 2023					
Beginning Balance	\$ 64,995	\$ 5,101	\$ 22,901	\$ 3,569	\$ 96,566
Adoption of ASU 2022-02	(25)	(166)	(83)	(402)	(676)
Charge offs	(22,510)	—	(1,417)	—	(23,927)
Recoveries	839	—	1,715	—	2,554
Provision	44,282	(218)	5,748	1,511	51,323
Ending Balance	<u>\$ 87,581</u>	<u>\$ 4,717</u>	<u>\$ 28,864</u>	<u>\$ 4,678</u>	<u>\$ 125,840</u>
December 31, 2022					
Beginning Balance	\$ 37,770	\$ 3,435	\$ 19,068	\$ 3,311	\$ 63,584
Charge offs	(8,262)	—	(1,463)	(652)	(10,377)
Recoveries	1,039	3	1,363	11	2,416
Provision	34,448	1,663	3,933	899	40,943
Ending Balance	<u>\$ 64,995</u>	<u>\$ 5,101</u>	<u>\$ 22,901</u>	<u>\$ 3,569</u>	<u>\$ 96,566</u>
December 31, 2021					
Beginning Balance	\$ 26,941	\$ 5,663	\$ 18,148	\$ 1,554	\$ 52,306
Charge offs	(2,912)	(262)	(2,731)	(12)	(5,917)
Recoveries	172	—	1,813	—	1,985
Provision	13,569	(1,966)	1,838	1,769	15,210
Ending Balance	<u>\$ 37,770</u>	<u>\$ 3,435</u>	<u>\$ 19,068</u>	<u>\$ 3,311</u>	<u>\$ 63,584</u>

During the year ended December 31, 2023, the ACL increased primarily as a result of loan growth and charge-off related impacts. Additionally, during the first quarter of 2023, certain assumptions were refined, drawing more heavily on internal data, in the calculations of PD, LGD and prepayment rates. Loss rates are adjusted for twelve month forecasted unemployment followed by a twelve-month straight-line reversion period.

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

During the year ended December 31, 2022, the ACL increased primarily as a result of loan growth, charge-off experience impacts and changes in the macroeconomic outlook. Loss rates are adjusted for twelve month forecasted unemployment followed by a twelve-month straight-line reversion period.

During the year ended December 31, 2021, increases to the ACL were primarily related to loan growth which has outpaced the improvement in forecasted unemployment rates and other conditions related to the COVID-19 pandemic. Unemployment rates were forecasted for twelve months followed by a twelve-month straight-line reversion period. Additionally, the provision expense was impacted by net charge-offs during the period.

Loan Modifications for Borrowers Experiencing Financial Difficulty

The Company may agree to modify the contractual terms of a loan to a borrower experiencing financial difficulty as a part of ongoing loss mitigation strategies. These modifications may result in an interest rate reduction, term extension, an other-than-insignificant payment delay, or a combination thereof. The Company typically does not offer principal forgiveness.

The following tables summarize the amortized cost basis of loans that were modified during the periods presented.

Twelve Months Ended December 31, 2023	Other-Than- Insignificant Payment Delay	Term Extension	Interest Rate Reduction	Combination - Term Extension & Payment Delay	% of Total Class of Financing Receivable
Small Business Banking	\$ 10,090	\$ 5,127	\$ 3,330	\$ 361	0.3 %
Specialty Lending	—	708	—	4,133	0.3
Energy & Infrastructure	—	13,485	—	—	1.4
Total	<u>\$ 10,090</u>	<u>\$ 19,320</u>	<u>\$ 3,330</u>	<u>\$ 4,494</u>	<u>2.0 %</u>

As of December 31, 2023, the Company had commitments to lend additional funds to these borrowers totaling \$1.2 million.

The following table presents an aging analysis of loans that were modified on or after January 1, 2023, the date the Company adopted ASU 2022-02, through December 31, 2023.

	Current	30-89 Days Past Due	90 Days or More Past Due	Total Past Due
Small Business Banking	\$ 18,908	\$ —	\$ —	\$ —
Specialty Lending	4,841	—	—	—
Energy & Infrastructure	13,485	—	—	—
Total	<u>\$ 37,234</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

The following tables summarize the financial impacts of loan modifications made to borrowers experiencing financial difficulty during the periods presented.

	Twelve Months Ended December 31, 2023	
	Weighted Average Interest Rate Reduction	Weighted Average Term Extension (in Months)
Small Business Banking	1.41 %	67
Specialty Lending	—	67
Energy & Infrastructure	—	15

There were no loans that were modified on or after January 1, 2023, the date the Company adopted ASU 2022-02, through December 31, 2023 that subsequently defaulted during the periods presented.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

The Company's ACL is estimated using lifetime historical loan performance adjusted to reflect current conditions and reasonable and supportable forecasts. Upon determination that a modified loan, or portion of a modified loan, has subsequently been deemed uncollectible, the uncollectible portion is written off. The amortized cost basis is reduced by the uncollectible amount and the ACL is adjusted by the same amount. As a result, the impact of loss mitigation strategies is captured in the estimates of PD and LGD.

Prior to January 1, 2023, a loan or lease was accounted for as a TDR if the Company, for reasons related to the borrower's financial difficulties, restructured a loan or lease, and granted a concession to the borrower that it would not otherwise grant. A TDR typically involved a more than short-term modification of terms such as a reduction of the interest rate below the current market rate for a loan or lease with similar risk characteristics or the waiving of certain financial covenants without corresponding offsetting compensation or additional support.

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

	Twelve months ended December 31, 2022									
	Interest Only		Payment Deferral		Extend Amortization		Other ⁽¹⁾		Total TDRs ⁽²⁾	
	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end
Commercial & Industrial										
Small Business Banking	—	\$ —	7	\$ 8,795	3	\$ 1,442	1	\$ 490	11	\$ 10,727
Specialty Lending	—	—	1	4,183	—	—	—	—	1	4,183
Energy & Infrastructure	—	—	—	—	1	13,517	—	—	1	13,517
Total	—	—	8	12,978	4	14,959	1	490	13	28,427
Commercial Real Estate										
Small Business Banking	1	3,677	1	797	1	4,364	—	—	3	8,838
Total	1	3,677	1	797	1	4,364	—	—	3	8,838
Construction & Development										
Small Business Banking	—	—	—	—	—	—	2	3,081	2	3,081
Total	—	—	—	—	—	—	2	3,081	2	3,081
Total	1	\$ 3,677	9	\$ 13,775	5	\$ 19,323	3	\$ 3,571	18	\$ 40,346

- (1) Includes one small business banking loan with extend amortization and a rate concession (\$490 thousand) and two small business banking loans with extended amortization and interest only (\$3.1 million).
- (2) Excludes loans accounted for under the fair value option. See Note 10. Fair Value of Financial Instruments for additional information.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Twelve months ended December 31, 2021

	Interest Only		Payment Deferral		Extend Amortization		Other ⁽¹⁾		Total TDRs ⁽²⁾	
	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end
Commercial & Industrial										
Small Business Banking	—	\$ —	3	\$ 6,097	1	\$ 496	—	\$ —	4	\$ 6,593
Total	—	—	3	6,097	1	496	—	—	4	6,593
Commercial Real Estate										
Small Business Banking	—	—	5	6,613	—	—	1	3,124	6	9,737
Total	—	—	5	6,613	—	—	1	3,124	6	9,737
Total	—	\$ —	8	\$ 12,710	1	\$ 496	1	\$ 3,124	10	\$ 16,330

- (1) Includes one small business banking loan with extended amortization and a rate concession TDR (\$3.1 million).
- (2) Excludes loans accounted for under the fair value option. See Note 10. Fair Value of Financial Instruments for additional information.

Restructurings made to improve a loan's performance have varying degrees of success. The following tables present TDRs that were modified within the twelve months ended December 31, 2022 that subsequently defaulted during the period:

Twelve months ended December 31, 2022

	Interest Only		Payment Deferral		Extend Amortization		Other		Total TDRs ⁽¹⁾	
	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end	Number of Loans	Recorded investment at period end
Commercial & Industrial										
Small Business Banking	—	\$ —	2	\$ 940	2	\$ 318	—	\$ —	4	\$ 1,258
Total	—	\$ —	2	\$ 940	2	\$ 318	—	\$ —	4	\$ 1,258

- (1) Excludes loans accounted for under the fair value option. See Note 10. Fair Value of Financial Instruments for additional information.

One TDR that was modified within the twelve months ended December 31, 2021 subsequently defaulted during the twelve months ended December 31, 2021. The TDR that defaulted was a commercial real estate small business banking loan that had previously been modified for a payment deferral and had a recorded investment of \$50 thousand at December 31, 2021.

Note 4. Leases

Lessor Equipment Leasing

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

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Direct Financing Leases

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

	<u>As of December 31,</u>	
	<u>2023</u>	<u>2022</u>
Gross direct finance lease payments receivable	\$ 2,335	\$ 4,284
Less - unearned interest	(218)	(479)
Net investment in direct financing leases	<u>\$ 2,117</u>	<u>\$ 3,805</u>

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

<u>As of December 31, 2023</u>	<u>Amount</u>
2024	\$ 1,250
2025	968
2026	117
Total	<u>\$ 2,335</u>

Interest income of \$253 thousand, \$393 thousand and \$669 thousand was recognized in the twelve months ended December 31, 2023, 2022 and 2021, respectively.

Operating Leases

As of December 31, 2023 and 2022, the Company had a net investment of \$104.0 million and \$114.2 million, respectively, in assets included in premises and equipment, net in the consolidated balance sheets that are subject to operating leases. Of the net investment, the gross balance of the assets was \$162.3 million and \$163.4 million as of December 31, 2023 and 2022, respectively, and accumulated depreciation was \$58.3 million and \$49.2 million as of December 31, 2023 and 2022, respectively. Depreciation expense recognized on these assets for the twelve months ended December 31, 2023, 2022 and 2021 was \$9.6 million, \$9.7 million and \$9.7 million, respectively.

Lease income of \$9.5 million was recognized in the twelve months ended December 31, 2023, 2022 and 2021.

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

<u>As of December 31, 2023</u>	<u>Amount</u>
2024	\$ 9,055
2025	8,738
2026	8,721
2027	8,483
2028	3,837
Thereafter	9,708
Total	<u>\$ 48,542</u>

Lessee Lease Arrangements

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

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Right-of-use assets represent the Company's right to use an underlying asset for the lease term. Lease liabilities represent the Company's obligation to make lease payments arising from the lease. When recognizing right-of-use assets and liabilities, the Company accounts for lease and non-lease components separately because such amounts are readily determinable under the lease contracts. Right-of-use assets and liabilities are measured on commencement date based on the present value of the lease payments over the lease term, discounted using the discount rate for the lease at commencement. The discount rate is the rate implicit in the lease, however, if that is not readily determinable, the Company will use its incremental borrowing rate. The right-of-use asset also includes any lease payments made before the commencement date and initial direct costs and excludes any lease incentives received. The lease terms may include options to extend or terminate the lease when it is reasonably certain that the option will be exercised. Lease expense for lease payments is recognized on a straight-line basis over the lease term. The Company does not apply the recognition and measurement requirements to any short-term leases (terms of twelve months or less).

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

The Company has operating leases for real property and land. These leases have remaining lease terms of less than 1 year to 23 years, some of which include options to extend the leases for up to 20 years, and some of which include options to terminate the leases. The Company has concluded that it is reasonably certain it will exercise the options to extend for only one lease, which was therefore recognized as part of the right-of-use asset and lease liability.

The Company had a finance lease for fitness equipment, which matured during the year ended December 31, 2022.

The components of lease expense are as follows:

	<u>December 31, 2023</u>	<u>December 31, 2022</u>
Operating lease cost	\$ 820	\$ 1,224
Short-term lease cost	123	99
Finance lease cost:		
Amortization of right-of-use assets	—	4
Interest expense on lease liabilities	—	—
Total net lease cost	<u>\$ 943</u>	<u>\$ 1,327</u>

Supplemental disclosure for the consolidated balance sheets related to operating leases is as follows:

	<u>December 31, 2023</u>	<u>December 31, 2022</u>
Operating lease right-of-use asset	\$ 2,799	\$ 2,118
Operating lease liability	3,180	2,558

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

	<u>December 31, 2023</u>	<u>December 31, 2022</u>
Weighted average remaining lease term (years)		
Operating leases	10.58	10.62
Weighted average discount rate		
Operating leases	3.64 %	3.14 %

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

A maturity analysis of operating lease liabilities is as follows:

As of December 31, 2023	Operating Leases
2024	\$ 718
2025	571
2026	508
2027	500
2028	333
Thereafter	1,231
Total lease payments	3,861
Less: imputed interest	(681)
Total lease liabilities	<u>\$ 3,180</u>

Note 5. Servicing Assets

Loans serviced for others are not included in the consolidated balance sheets. The unpaid principal balances of loans serviced for others requiring recognition of a servicing asset were \$3.09 billion, \$2.67 billion and \$2.29 billion at December 31, 2023, 2022 and 2021, respectively. The unpaid principal balance for all loans serviced for others was \$4.24 billion, \$3.48 billion and \$3.30 billion at December 31, 2023, 2022 and 2021, respectively.

The following summarizes the activity pertaining to servicing rights measured at fair value:

	2023	2022
Balance at beginning of period	\$ 26,323	\$ 33,574
Additions, net	16,977	9,326
Fair value changes:		
Due to changes in valuation inputs or assumptions ⁽¹⁾	14,297	(5,934)
Decay due to increases in principal paydowns or runoff	(9,411)	(10,643)
Balance at end of period	<u>\$ 48,186</u>	<u>\$ 26,323</u>

(1) The twelve month period ended December 31, 2023, includes a \$13.7 million increase related to change in estimate implemented on July 1, 2023.

See Note 10. Fair Value of Financial Instruments for further details about servicing assets measured at fair value.

As of December 31, 2023, the Company had servicing assets related to conventional commercial loans carried at amortized cost of \$405 thousand.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Note 6. Premises and Equipment

Components of Premises and Equipment

Components of premises and equipment and total accumulated depreciation at December 31, 2023 and 2022 are as follows:

	<u>2023</u>	<u>2022</u>
Buildings	\$ 54,746	\$ 54,746
Land improvements	5,213	5,180
Furniture and equipment	19,537	19,117
Hardware and software	16,698	10,264
Leasehold improvements	7,678	7,705
Land	17,998	15,982
Transportation	22,279	49,766
Solar panels	162,348	163,391
Deposits on fixed assets	48,518	33,966
Premises and equipment, total	355,015	360,117
Less accumulated depreciation	(97,134)	(96,827)
Premises and equipment, net of depreciation	<u>\$ 257,881</u>	<u>\$ 263,290</u>

Deposits on fixed assets at December 31, 2023 consist primarily of construction costs related to the Company's planned fourth building, software development costs, plane deposits and campus improvement costs. Depreciation expense for the years ended December 31, 2023, 2022 and 2021 amounted to \$21.1 million, \$20.6 million and \$21.2 million, respectively.

In 2022, the Company purchased a building and land adjacent to its main campus for \$18.3 million. The building, with a value of \$11.5 million and \$11.3 million at December 31, 2023 and 2022, respectively, is temporarily idle and therefore included in deposits on fixed assets as the Company formalizes plans for its campus expansion.

Note 7. Deposits

The types of deposits at December 31, 2023 and 2022 are:

	<u>2023</u>	<u>2022</u>
Noninterest-bearing deposits	\$ 259,270	\$ 194,100
Interest-bearing deposits:		
Interest-bearing checking	301,006	—
Money market	135,551	128,443
Savings	4,497,376	4,096,576
Time deposits	5,081,816	4,465,809
Total	<u>10,015,749</u>	<u>8,690,828</u>
Total deposits	<u>\$ 10,275,019</u>	<u>\$ 8,884,928</u>

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

The aggregate amount of time deposits in denominations of \$250 thousand or more at December 31, 2023 and 2022 was approximately \$695.6 million and \$629.1 million, respectively. At December 31, 2023 the scheduled maturities of total time deposits are as follows:

<u>Year</u>	<u>Amount</u>
2024	\$ 3,452,692
2025	556,766
2026	370,858
2027	258,963
2028	156,472
Thereafter	286,065
Total	<u>\$ 5,081,816</u>

Note 8. Borrowings

Total outstanding borrowings consisted of the following:

	<u>December 31, 2023</u>	<u>December 31, 2022</u>
<u>Borrowings</u>		
In March 2021, the Company entered into a 60-month term loan agreement of \$50.0 million with a third party correspondent bank. The loan accrues interest at a fixed rate of 2.95% with a monthly payment sufficient to fully amortize the loan, with all remaining unpaid principal and interest due at maturity on March 30, 2026. The Company paid the Lender a non-refundable \$325 thousand loan origination fee upon signing of the Note that is presented as a direct deduction from the carrying amount of the loan and will be amortized into interest expense over the life of the loan.	\$ 23,354	\$ 33,203
On December 30, 2022, the Company made an advance of \$50.0 million on an overnight Fed Funds line of credit that is unsecured with an interest rate of 4.65%. The Company paid down the balance in full on January 3, 2023 and there is \$100.0 million of available credit remaining at December 31, 2023.	—	50,000
Total borrowings	<u>\$ 23,354</u>	<u>\$ 83,203</u>

As of December 31, 2023 and 2022, the Company's total unused borrowing capacity was \$3.68 billion and \$3.55 billion, respectively, based upon securities and loans identified as available for collateral. Unused borrowing capacity consists of access through the Federal Reserve Bank's discount window, available lines of credit with the Federal Home Loan Bank and other correspondent banks, the Federal Reserve Bank's Bank Term Funding Program, as well as access to a repurchase agreement. If additional collateral is available, the Company's aggregate approved borrowing capacity with all of the above sources is \$6.28 billion and \$4.88 billion as of December 31, 2023 and 2022, respectively.

The Company may borrow funds through the Federal Reserve Bank's discount window. These borrowings are secured by a blanket floating lien on qualifying loans with a balance of \$2.74 billion and \$2.81 billion as of December 31, 2023 and 2022, respectively. At December 31, 2023 and 2022, the Company had approximately \$2.21 billion and \$2.35 billion, respectively, in borrowing capacity available under these arrangements with no outstanding balance as of December 31, 2023 or 2022.

On June 18, 2018, the Company entered into a borrowing agreement with the Federal Home Loan Bank of Atlanta. These borrowings must be secured with eligible collateral approved by the Federal Home Loan Bank of Atlanta. As of December 31, 2023 and 2022, there was \$2.72 billion and \$2.31 billion, respectively, of stated potential borrowing capacity available under this agreement, of which approximately \$111.7 million and \$983.8 million of securities are available for collateral, respectively. There is no collateral pledged and no advances outstanding as of December 31, 2023 or 2022.

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

The Company may purchase federal funds through unsecured federal funds lines of credit with various correspondent banks, which totaled \$130.0 million and \$164.5 million as of December 31, 2023 and 2022, respectively. These lines are intended for short-term borrowings and are subject to restrictions limiting the frequency and terms of advances. These lines of credit are payable on demand and bear interest based upon the daily federal funds rate. The Company had no outstanding balance on the lines of credit as of December 31, 2023, and \$50.0 million in outstanding balances on the lines of credit as of December 31, 2022.

In September 2023, the Company modified a \$100.0 million revolving line of credit with a third party correspondent bank. The line of credit is unsecured and accrues interest at 30-day SOFR plus 1.25% with an interest rate floor of 2.75%. The line of credit was extended 12 months to a maturity date of October 10, 2026 and the interest rate cap was increased from 4.25% to 6.75%. Payments are interest only with all principal and accrued interest due at maturity. The terms of this loan require the Company to maintain minimum capital and debt service coverage ratios. The Company paid the Lender a non-refundable \$250 thousand renewal fee upon modifying the Note that will be amortized into interest expense over the life of the loan. As of December 31, 2023 and 2022, there was \$100.0 million of available credit.

The Company may borrow funds from the Bank Term Funding Program (“BTFFP”). Under the BTFFP, advances must be secured by pledging eligible securities owned by the Company on March 12, 2023. BTFFP advances can be requested for a term of up to one year at a fixed market rate until the program ends March 11, 2024. As of December 31, 2023, there was \$1.12 billion of potential borrowing capacity available and no outstanding balance.

The Company has entered into a repurchase agreement with a third party for up to \$5.0 million as of December 31, 2023 and 2022. At the time the Company enters into a transaction with the third party, the Company must transfer securities or other assets against the funds received. The terms of the agreement are set at market conditions at the time the Company enters into such transaction. The Company had no outstanding balance on the repurchase agreement as of December 31, 2023 and 2022.

Note 9. Income Taxes

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

	2023	2022	2021
Current income tax expense:			
Federal	\$ 24,051	\$ 3,686	\$ 12,774
State	7,042	3,301	6,211
Total current tax expense	31,093	6,987	18,985
Deferred income tax (benefit) expense:			
Federal	(20,914)	23,838	22,886
State	(1,247)	3,291	1,922
Total deferred tax (benefit) expense	(22,161)	27,129	24,808
Income tax expense, as reported	<u>\$ 8,932</u>	<u>\$ 34,116</u>	<u>\$ 43,793</u>

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

Reported income tax expense differed from the amounts computed by applying the U.S. federal statutory income tax rate of 21% in 2023, 2022 and 2021 to income before income taxes as follows:

	2023	2022	2021
Income tax expense computed at the statutory rate	\$ 17,394	\$ 44,168	\$ 44,266
State income tax expense, net of federal	4,316	5,899	6,426
Stock-based compensation expense	2,084	73	(4,689)
Decrease in taxes due to investment tax credit	(16,390)	(16,361)	(3,392)
Amended return net benefits	—	(3,261)	—
Other	1,528	3,598	1,182
Total income tax expense	<u>\$ 8,932</u>	<u>\$ 34,116</u>	<u>\$ 43,793</u>

Components of deferred tax assets and liabilities are as follows:

	2023	2022
Deferred tax assets:		
Net unrealized losses on securities available for sale	\$ 26,753	\$ 29,153
Allowance for loan and lease losses	30,576	27,159
Stock-based compensation expense	2,599	5,248
Capitalized research and experimentation costs	4,726	3,780
Accrued expenses	1,283	1,070
Operating lease liabilities	773	618
Goodwill and intangibles	—	14
Unguaranteed loan discount	319	—
Deferred loan fees and costs, net	101	—
Other	1,806	1,147
Total deferred tax assets	<u>68,936</u>	<u>68,189</u>
Deferred tax liabilities:		
Premises and equipment	37,381	39,054
Net unrealized gains on non-marketable and other equity securities	18,165	22,309
Mark to market on loans held for sale	6,294	14,036
Unguaranteed loan discount	—	4,309
Deferred loan fees and costs, net	—	1,332
Operating lease right-of-use assets	680	511
Goodwill and intangibles	19	—
Other	11	13
Total deferred tax liabilities	<u>62,550</u>	<u>81,564</u>
Net deferred tax asset (liability)	<u>\$ 6,386</u>	<u>\$ (13,375)</u>

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

The Company assesses the realizability of deferred tax assets at each reporting period and considers whether it is more likely than not that a deferred tax asset will not be realized. The realization of a deferred tax asset is dependent upon the generation of future taxable income during periods in which the related temporary difference becomes deductible or realizable prior to its expiration. The Company considers projected future taxable income, scheduled reversal of deferred tax liabilities, cessation of investing in renewable energy assets that generate investment tax credits and tax planning strategies in making this assessment. Based on these considerations, management believes it is more likely than not that the deferred tax assets will be realized.

ASC 740, Income Taxes, defines the threshold for recognizing the benefits of tax return positions in the financial statements as “more-likely-than-not” to be sustained by the taxing authority. The Company does not have material uncertain tax positions, interest or penalties recorded in the consolidated balance sheets or statements of income as of or for the years ended December 31, 2023, 2022 and 2021. As of December 31, 2023, the Company was under audit by the Internal Revenue Service principally as it relates to prior energy credits. Due to the complexities of uncertainties, the ultimate resolution may result in a liability that is materially different from the current estimate.

The Company files a consolidated income tax return in the U.S. federal tax jurisdiction. Generally, the Company’s federal and state tax returns are no longer subject to examination by the taxing authorities for years prior to 2015.

Note 10. Fair Value of Financial Instruments

Fair Value Hierarchy

There are three levels of inputs in the fair value hierarchy that may be used to measure fair value. Financial instruments are considered *Level 1* when valuation can be based on quoted prices in active markets for identical assets or liabilities. *Level 2* financial instruments are valued using quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or models using inputs that are observable or can be corroborated by observable market data of substantially the full term of the assets or liabilities. Financial instruments are considered *Level 3* when their values are determined using pricing models, discounted cash flow methodologies or similar techniques and at least one significant model assumption or input is unobservable and when determination of the fair value requires significant management judgment or estimation.

Recurring Fair Value

The following sections provide a description of the valuation methodologies used for instruments measured at fair value on a recurring basis, as well as the general classification of such instruments pursuant to the fair value hierarchy:

Investment securities available-for-sale: Where quoted prices are available in an active market, securities are classified within Level 1 of the valuation hierarchy. Level 1 securities would include highly liquid government bonds, mortgage products and exchange traded equities. If quoted market prices are not available, then fair values are estimated by using pricing models, quoted prices of securities with similar characteristics, discounted cash flow or at net asset value per share. Level 2 securities would include U.S. government agency securities, mortgage-backed securities, obligations of states and political subdivisions and certain corporate, asset backed and other securities. In certain cases where there is limited activity or less transparency around inputs to the valuation, securities are classified within Level 3 of the valuation hierarchy.

Loans held for investment: The fair values of loans accounted for under the fair value option are determined using a DCF methodology. The estimate incorporates assumptions that market participants would use to estimate fair value of similar assets such as prepayment speeds, default and severity rates, and a discount rate. Due to the nature of the valuation inputs, loans held for investment are classified within Level 3 of the valuation hierarchy.

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

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Mutual fund: The mutual fund is registered with the Securities and Exchange Commission as a closed-end, non-diversified management investment company and operates as an interval fund. The fund primarily invests in the unguaranteed portion of SBA504 first lien loans secured by owner-occupied commercial real estate. This investment is valued using quoted prices in markets that are not active and is classified as Level 2 within the valuation hierarchy.

Equity warrant assets: Fair value measurements of equity warrant assets of private companies are priced based on a Black-Scholes option pricing model to estimate the asset value by using stated strike prices, option expiration dates, risk-free interest rates and option volatility assumptions. Option volatility assumptions used in the Black-Scholes model are based on public companies that operate in similar industries as the companies in the Company's private company portfolio. Values are further adjusted for a general lack of liquidity due to the private nature of the associated underlying company. The Company classifies equity warrant assets within Level 3 of the valuation hierarchy.

The table below provides a rollforward of the Level 3 equity warrant asset fair values.

<u>Equity Warrant Assets</u>	<u>Twelve months ended December 31,</u>	
	<u>2023</u>	<u>2022</u>
Balance at beginning of period	\$ 2,210	\$ 1,672
Issuances	1,005	833
Net gains on derivative instruments	19	671
Settlements	(360)	(966)
Balance at end of period	<u>\$ 2,874</u>	<u>\$ 2,210</u>

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

<u>December 31, 2023</u>	<u>Total</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Investment securities available-for-sale				
U.S. government agencies	\$ 17,529	\$ —	\$ 17,529	\$ —
Mortgage-backed securities	1,105,592	—	1,105,592	—
Municipal bonds ⁽¹⁾	3,039	—	2,954	85
Loans held for investment	388,036	—	—	388,036
Servicing assets ⁽²⁾	48,186	—	—	48,186
Mutual fund	1,645	—	1,645	—
Equity warrant assets	2,874	—	—	2,874
Total assets at fair value	<u>\$ 1,566,901</u>	<u>\$ —</u>	<u>\$ 1,127,720</u>	<u>\$ 439,181</u>

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

December 31, 2022	Total	Level 1	Level 2	Level 3
Investment securities available-for-sale				
U.S. government agencies	\$ 15,668	\$ —	\$ 15,668	\$ —
Mortgage-backed securities	995,574	—	995,574	—
Municipal bonds ⁽¹⁾	2,977	—	2,884	93
Other debt securities	500	—	500	—
Loans held for investment	494,458	—	—	494,458
Servicing assets ⁽²⁾	26,323	—	—	26,323
Mutual fund	1,656	—	1,656	—
Equity warrant assets	2,210	—	—	2,210
Total assets at fair value	<u>\$ 1,539,366</u>	<u>\$ —</u>	<u>\$ 1,016,282</u>	<u>\$ 523,084</u>

(1) During the year ended December 31, 2023, the Company recorded a principal paydown of \$1 thousand and a fair value adjustment loss of \$7 thousand. During the year ended December 31, 2022, the Company recorded a principal paydown of \$1 thousand and a fair value adjustment loss of \$2 thousand.

(2) See Note 5 for a rollforward of recurring Level 3 fair values for servicing assets.

Fair Value Option

Until the first quarter of 2021, the Company had historically elected to account for retained participating interests of all government guaranteed loans under the fair value option in order to align the accounting presentation with the Company's viewpoint of the economics of the loans. Interest income is recognized in the same manner on loans reported at fair value as on non-fair value loans, except in regard to origination fees and costs which are recognized immediately upon fair value election. Not electing fair value generally results in a larger discount being recorded on the date of the sale. This discount is subsequently accreted into interest income over the underlying loan's remaining term using the effective interest method. Management made this change of election in alignment with its ongoing effort to reduce volatility and drive more predictable revenue. In accordance with GAAP, any loans for which fair value was previously elected continue to be measured as such.

There were no loans accounted for under the fair value option that were 90 days or more past due and still accruing interest at December 31, 2023 or 2022. The unpaid principal balance of unguaranteed exposure for nonaccruals was \$9.1 million and \$7.2 million at December 31, 2023 and 2022, respectively.

The following tables provide more information about the fair value carrying amount and the unpaid principal outstanding of loans accounted for under the fair value option at December 31, 2023 and December 31, 2022.

	December 31, 2023								
	Total Loans			Nonaccruals			90 Days or More Past Due		
	Fair Value Carrying Amount	Unpaid Principal Balance	Difference	Fair Value Carrying Amount	Unpaid Principal Balance	Difference	Fair Value Carrying Amount	Unpaid Principal Balance	Difference
Fair Value Option Elections									
Loans held for investment	\$388,036	\$407,544	\$ (19,508)	\$ 48,474	\$ 50,749	\$ (2,275)	\$ 36,490	\$ 37,939	\$ (1,449)
	<u>\$388,036</u>	<u>\$407,544</u>	<u>\$ (19,508)</u>	<u>\$ 48,474</u>	<u>\$ 50,749</u>	<u>\$ (2,275)</u>	<u>\$ 36,490</u>	<u>\$ 37,939</u>	<u>\$ (1,449)</u>

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

December 31, 2022

	Total Loans			Nonaccruals			90 Days or More Past Due		
	Fair Value Carrying Amount	Unpaid Principal Balance	Difference	Fair Value Carrying Amount	Unpaid Principal Balance	Difference	Fair Value Carrying Amount	Unpaid Principal Balance	Difference
Fair Value Option Elections									
Loans held for investment	\$494,458	\$513,219	\$ (18,761)	\$ 44,890	\$ 46,993	\$ (2,103)	\$ 24,663	\$ 26,321	\$ (1,658)
	<u>\$494,458</u>	<u>\$513,219</u>	<u>\$ (18,761)</u>	<u>\$ 44,890</u>	<u>\$ 46,993</u>	<u>\$ (2,103)</u>	<u>\$ 24,663</u>	<u>\$ 26,321</u>	<u>\$ (1,658)</u>

The following table presents the net (losses) gains from changes in fair value.

(Losses) Gains on Loans Accounted for under the Fair Value Option	Twelve Months Ended December 31,	
	2023	2022
Loans held for sale	\$ —	\$ 1,521
Loans held for investment	(3,539)	(475)
	<u>\$ (3,539)</u>	<u>\$ 1,046</u>

Losses related to borrower-specific credit risk were \$3.5 million and \$1.9 million for the twelve months ended December 31, 2023 and 2022, respectively.

The following tables summarize the activity pertaining to loans accounted for under the fair value option.

Loans held for sale	Twelve Months Ended December 31,	
	2023	2022
Balance at beginning of period	\$ —	\$ 25,310
Repurchases and issuances	—	65
Fair value changes	—	1,521
Transfers	—	(26,219)
Settlements	—	(677)
Balance at end of period	<u>\$ —</u>	<u>\$ —</u>

Loans held for investment	Twelve Months Ended December 31,	
	2023	2022
Balance at beginning of period	\$ 494,458	\$ 645,201
Repurchases and issuances	22,955	18,629
Fair value changes	(3,539)	(475)
Transfers	—	26,219
Settlements	(125,838)	(195,116)
Balance at end of period	<u>\$ 388,036</u>	<u>\$ 494,458</u>

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Non-recurring Fair Value

The following sections provide a description of the valuation methodologies used for instruments measured at fair value on a non-recurring basis, as well as the general classification of such instruments pursuant to the fair value hierarchy:

Collateral-dependent loans: Loans are considered collateral-dependent when the Company has determined that foreclosure of the collateral is probable or when a borrower is experiencing financial difficulty and the loan is expected to be repaid substantially through the operation or sale of collateral. A collateral-dependent loan's ACL is measured based on the difference between the fair value of the collateral and the amortized cost basis of the loan as of the measurement date. Fair value of the loan's collateral is determined by appraisals, independent valuation, or management's estimation of fair value which is then adjusted for the cost related to liquidation of the collateral. Collateral-dependent loans are generally classified as Level 3 based on management's judgment and estimation. Loans with agreed upon sales prices are classified as Level 1.

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

The tables below present the recorded amount of assets measured at fair value on a non-recurring basis. The Company has no liabilities recorded at fair value on a non-recurring basis.

<u>December 31, 2023</u>	<u>Total</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Collateral-dependent loans	\$ 4,503	\$ —	\$ —	\$ 4,503
Foreclosed assets	6,481	—	—	6,481
Total assets at fair value	<u>\$ 10,984</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 10,984</u>

<u>December 31, 2022</u>	<u>Total</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Collateral-dependent loans	\$ 4,840	\$ —	\$ —	\$ 4,840
Total assets at fair value	<u>\$ 4,840</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 4,840</u>

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Level 3 Analysis

For Level 3 assets measured at fair value on a recurring or non-recurring basis as of December 31, 2023 and December 31, 2022, the significant unobservable inputs used in the fair value measurements were as follows:

December 31, 2023

Level 3 Assets with Significant Unobservable Inputs	Fair Value	Valuation Technique	Significant Unobservable Inputs	Range	Weighted Average ⁽¹⁾
<i>Recurring fair value</i>					
Municipal bond	\$ 85	Discounted expected cash flows	Discount rate	7.0%	N/A
			Prepayment speed	5.0%	N/A
Loans held for investment	\$ 388,036	Discounted expected cash flows	Loss rate	0.0% - 7.4%	1.2 %
			Discount rate	6.7% - 18.0%	9.6 %
			Prepayment speed	14.0% - 30.3%	16.0 %
Servicing assets	\$ 48,186	Discounted expected cash flows	Discount rate	14.5%	14.5 %
			Prepayment speed	11.8% - 17.8%	15.3 %
Equity warrant assets	\$ 2,874	Black-Scholes option pricing model	Volatility	26.9% - 90.0%	35.8 %
			Risk-free interest rate	3.8% - 3.9%	3.9 %
			Marketability discount	20.0% - 25.0%	22.7 %
			Remaining life	3.9 - 10 years	7.6 years
<i>Non-recurring fair value</i>					
Collateral-dependent loans	\$ 4,503	Discounted appraisals	Appraisal adjustments ⁽²⁾	10.0% - 70.0%	38.7 %
Foreclosed assets	\$ 6,481	Discounted appraisals	Appraisal adjustments ⁽²⁾	10.0% - 17.4%	10.4 %

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

December 31, 2022

Level 3 Assets with Significant Unobservable Inputs	Fair Value	Valuation Technique	Significant Unobservable Inputs	Range	Weighted Average ⁽¹⁾
<i>Recurring fair value</i>					
Municipal bond	\$ 93	Discounted expected cash flows	Discount rate	6.0%	N/A
			Prepayment speed	5.0%	N/A
Loans held for investment	\$ 494,458	Discounted expected cash flows	Loss rate	0.0 % - 79.3 %	1.9 %
			Discount rate	7.5 % - 11.2 %	10.0 %
			Prepayment speed	16.5%	16.5 %
		Discounted appraisals	Appraisal adjustments	0.0 % - 77.3 %	28.6 %
Servicing assets	\$ 26,323	Discounted expected cash flows	Discount rate	0.0 % - 32.0%	20.8 %
			Prepayment speed	0.0 % - 37.4 %	15.7 %
Equity warrant assets	\$ 2,210	Black-Scholes option pricing model	Volatility	26.5 % - 90.0 %	34.2 %
			Risk-free interest rate	3.9 % - 4.0 %	3.9 %
			Marketability discount	20.0 %	20.0 %
			Remaining life	3 - 10 years	7.7 years
<i>Non-recurring fair value</i>					
Collateral-dependent loans	\$ 4,840	Discounted appraisals	Appraisal adjustments ⁽²⁾	10.0 % - 66.5 %	34.2 %

(1) Weighted averages are determined by the relative fair value of the instruments or the relative contribution to the instruments fair value.

(2) Appraisals may be adjusted by management for customized discounting criteria, estimated sales costs, and other qualitative adjustments.

Estimated Fair Value of Other Financial Instruments

GAAP also requires disclosure of fair value information about financial instruments carried at book value on the consolidated balance sheet. In cases where quoted market prices are not available, fair values are based on estimates using present value or other valuation techniques. Those techniques are significantly affected by the assumptions used, including the discount rate and estimates of future cash flows. In that regard, the derived fair value estimates cannot be substantiated by comparison to independent markets and, in many cases, could not be realized in immediate settlement of the instruments. Accordingly, the aggregate fair value amounts presented do not necessarily represent the underlying value to the Company.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

The carrying amounts and estimated fair values of the Company's financial instruments not measured at fair value on a recurring or non-recurring basis are as follows:

<u>December 31, 2023</u>	<u>Carrying Amount</u>	<u>Quoted Price In Active Markets for Identical Assets/Liabilities (Level 1)</u>	<u>Significant Other Observable Inputs (Level 2)</u>	<u>Significant Unobservable Inputs (Level 3)</u>	<u>Total Fair Value</u>
<i>Financial assets</i>					
Cash and due from banks	\$ 582,540	\$ 582,540	\$ —	\$ —	\$ 582,540
Certificates of deposit with other banks	250	250	—	—	250
Loans held for sale	387,037	—	—	402,096	402,096
Loans and leases held for investment, net of allowance for credit losses on loans and leases	8,119,971	—	—	8,600,046	8,600,046
<i>Financial liabilities</i>					
Deposits	10,275,019	—	10,080,182	—	10,080,182
Borrowings	23,354	—	—	22,844	22,844

<u>December 31, 2022</u>	<u>Carrying Amount</u>	<u>Quoted Price In Active Markets for Identical Assets/Liabilities (Level 1)</u>	<u>Significant Other Observable Inputs (Level 2)</u>	<u>Significant Unobservable Inputs (Level 3)</u>	<u>Total Fair Value</u>
<i>Financial assets</i>					
Cash and due from banks	\$ 280,239	\$ 280,239	\$ —	\$ —	\$ 280,239
Federal funds sold	136,397	136,397	—	—	136,397
Certificates of deposit with other banks	4,000	4,000	—	—	4,000
Loans held for sale	554,610	—	—	577,254	577,254
Loans and leases held for investment, net of allowance for credit losses on loans and leases	6,753,154	—	—	6,652,936	6,652,936
<i>Financial liabilities</i>					
Deposits	8,884,928	—	8,532,615	—	8,532,615
Borrowings	83,203	—	—	82,258	82,258

Note 11. Commitments and Contingencies

Litigation

In the ordinary course of operations, the Company is at times involved in legal proceedings. In the opinion of management, as of December 31, 2023, there are no material pending legal proceedings to which the Company or any of its subsidiaries is a party or of which any of their property is the subject.

Financial Instruments with Off-balance-sheet Risk

The Company is party to financial instruments with off-balance-sheet risk in the normal course of business to meet the financing needs of its customers. These financial instruments include commitments to extend credit and standby letters of credit. These instruments involve, to varying degrees, credit risk in excess of the amount recognized in the balance sheet.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

The Company’s exposure to credit loss in the event of nonperformance by the other party to the financial instrument for commitments to extend credit and standby letters of credit is represented by the contractual amount of those instruments. The Company uses the same credit policies in making commitments and conditional obligations as for on-balance-sheet instruments. A summary of the Company’s commitments is as follows:

	December 31, 2023	December 31, 2022
Commitments to extend credit ⁽¹⁾	\$ 2,921,978	\$ 2,731,866
Standby letters of credit	20,487	26,454
Airplane purchase agreement commitments	9,000	24,000
Total unfunded off-balance sheet credit risk	<u>\$ 2,951,465</u>	<u>\$ 2,782,320</u>

(1) Includes unfunded overdraft protection.

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since many of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. The Company evaluates each customer’s creditworthiness on a case-by-case basis. The amount of collateral obtained, if deemed necessary by the Company upon extension of credit, is based on management’s credit evaluation of the party. Collateral held varies, but may include accounts receivable, inventory, property and equipment, residential real estate and income-producing commercial properties. Commitment letters are issued after approval of the loan by the Credit Department and generally expire ninety days after issuance.

Standby letters of credit are conditional commitments issued by the Company to guarantee the performance of a customer to a third party. Those guarantees are primarily issued to support public and private borrowing arrangements. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities to customers. Collateral held varies as specified above and is required in instances which the Company deems necessary.

Other Commitments

The Company is in the final phase of constructing a new facility to accommodate expansion of its main campus. The total estimated cost to complete the construction program is approximately \$37.0 million. At December 31, 2023, the Company has paid and was committed to approximately \$21.5 million of the total estimated amount.

As of December 31, 2023 and December 31, 2022, the Company recorded unfunded commitments to provide capital contributions for on-balance-sheet investments in the amount of \$29.0 million and \$26.1 million, respectively.

Concentrations of Credit Risk

The distribution of commitments to extend credit approximates the distribution of loans outstanding. The Company does not have a significant number of credits to any single borrower or group of related borrowers whereby their retained exposure exceeds \$20.0 million, except for twenty-seven relationships that have a retained unguaranteed exposure of \$1.10 billion of which \$684.9 million of the unguaranteed exposure has been disbursed.

Additionally, the Company has future minimum lease payments receivable under non-cancelable operating leases totaling \$48.5 million, of which no relationships exceed \$20.0 million.

The Company from time-to-time may have cash and cash equivalents on deposit with financial institutions that exceed federally-insured limits.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Geographic Concentrations

The following table presents the geographic concentration of the Company's loan and lease portfolio at December 31, 2023:

Geographic Regions ⁽¹⁾	% of Total
Midwest	12.4 %
Northeast	18.7
Southeast	30.8
Southwest	12.2
West	25.9
Total	100.0 %

- (1) Concentrations are stated as a percentage of total unguaranteed loans held for investment. Midwest consists of ND, SD, NE, KS, MN, IA, WI, MO, IL, IN, MI and OH. Northeast consists of MD, DE, PA, NJ, NY, CT, RI, MA, VT, ME and NH. Southeast consists of AR, LA, MS, TN, AL, GA, FL, SC, KY, NC, VA, WV, DC, PR and VI. Southwest consists of AZ, NM, TX and OK. West consists of WA, OR, CA, NV, ID, MT, WY, CO, UT, AK and HI.

Note 12. Benefit Plans

Defined Contribution Plan

The Company maintains an employee benefit plan pursuant to Section 401(k) of the Internal Revenue Code. The plan covers substantially all employees. Participants may contribute a percentage of compensation, subject to a maximum allowed under the Code. In addition, the Company makes certain matching contributions and may make additional contributions at the discretion of the board of directors. Company expense relating to the plan for the years ended December 31, 2023, 2022 and 2021 amounted to \$6.5 million, \$6.3 million and \$4.4 million, respectively.

Flexible Benefits Plan

The Company maintains a Flexible Benefits Plan which covers substantially all employees. Participants may set aside pre-tax dollars to provide for future expenses such as dependent care.

Employee Stock Purchase Plan

The Company adopted an Employee Stock Purchase Plan on October 8, 2014, which plan was most recently amended and restated as of March 22, 2021 and approved by the Company's shareholders on May 11, 2021 ("ESPP"), within the meaning of Section 423 of the Internal Revenue Code of 1986, as amended. Under this plan, eligible employees are able to purchase available shares with post-tax dollars as of the grant date. In order for employees to be eligible to participate in this plan they must be employed or on an authorized leave of absence from the Company or any subsidiary immediately prior to the grant date. ESPP stock purchases cannot exceed \$25 thousand in fair market value per employee per calendar year. Options to purchase shares under the ESPP are granted at a 15% discount to fair market value. Expense recognized in relation to the ESPP was \$246 thousand, \$188 thousand and \$118 thousand for fiscal years 2023, 2022 and 2021, respectively.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Stock Option Plans

On March 20, 2015, the Company adopted the 2015 Omnibus Stock Incentive Plan (as amended and currently in effect, the “2015 Omnibus Stock Incentive Plan”) which replaced the previously existing Amended Incentive Stock Option Plan and Nonstatutory Stock Option Plan. Subsequently on May 24, 2016, the 2015 Omnibus Stock Incentive Plan was amended and restated, and on May 15, 2018, the 2015 Omnibus Stock Incentive Plan was amended, to authorize awards covering a maximum of 7,000,000 and 8,750,000 common voting shares, respectively. On May 11, 2021, the Amended and Restated 2015 Omnibus Stock Incentive Plan was amended to authorize awards covering a maximum of 10,750,000 common voting shares. Subsequently on May 16, 2023, 2015 Omnibus Stock Incentive Plan was amended to authorize awards covering a maximum of 13,750,000 common voting shares. Options or restricted shares granted under 2015 Omnibus Stock Incentive Plan expire no more than 10 years from date of grant. Exercise prices under the 2015 Omnibus Stock Incentive Plan are set by the Board of Directors at the date of grant but shall not be less than 100% of fair market value of the related stock at the date of the grant. Forfeitures are recognized as they occur.

Compensation cost relating to share-based payment transactions are recognized in the financial statements with measurement based upon the fair value of the equity or liability instruments issued. For the years ended December 31, 2023, 2022 and 2021 the Company recognized \$25 thousand, \$753 thousand and \$1.3 million in compensation expense for stock options, respectively.

Stock option activity under the 2015 Omnibus Stock Incentive Plan during the year ended December 31, 2023 is summarized below.

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at December 31, 2022	825,114	\$ 12.73		
Exercised	(148,551)	12.71		
Outstanding at December 31, 2023	676,563	\$ 12.74	1.31 years	\$ 22,165,930
Exercisable at December 31, 2023	676,563	\$ 12.74	1.31 years	\$ 22,165,930

The following is a summary of non-vested stock option activity for the Company for the years ended December 31, 2023, 2022 and 2021.

	Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2020	1,022,636	\$ 5.38
Vested	(592,693)	4.35
Forfeited	(47,093)	7.28
Non-vested at December 31, 2021	382,850	6.75
Vested	(336,464)	6.85
Forfeited	(8,626)	6.95
Non-vested at December 31, 2022	37,760	6.60
Vested	(37,760)	6.60
Non-vested at December 31, 2023	—	\$ —

The total intrinsic value of options exercised during the years ended December 31, 2023, 2022 and 2021 was \$2.8 million, \$7.0 million and \$46.3 million, respectively.

At December 31, 2023, there was no unrecognized compensation costs relating to stock options.

There were no options granted in 2023, 2022 or 2021.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Restricted Stock Plan

In 2010, the Company adopted a Restricted Stock Plan. Under this plan, a total of 1,350,000 shares of Common Stock were available for issuance to eligible employees. Restricted stock grants vested in equal installments ranging from immediate vesting to over a seven year period from the date of the grant. Under the 2015 Omnibus Stock Incentive Plan, which replaced the previously existing Restricted Stock Plan, 1,329,508 restricted stock units were granted during 2021 to eligible employees and outside directors at a weighted average grant date fair value of \$58.19. During 2022, 885,939 restricted stock units were granted to eligible employees and outside directors at a weighted average grant date fair value of \$37.75. The vesting of these grants was time based and had no market price conditions. During 2023, 927,838 restricted stock units were granted to eligible employees and outside directors at a weighted average grant date fair value of \$34.83, of which the vesting of all grants was time based.

The fair value of each restricted stock unit is based on the market value of the Company’s stock on the date of the grant. Restricted stock awards are authorized in the form of restricted stock awards or units (“RSUs”) and restricted stock awards or units with a market price condition (“Market RSUs”).

RSUs have a restriction based on the passage of time and may also have a restriction based on a non-market-related performance criteria. The fair value of the RSUs is based on the closing price on the date of the grant.

Market RSUs may have a restriction based on the passage of time and may have non-market-related performance criteria, but also have a restriction based on market price criteria related to the Company’s share price closing at or above a specified price for at least twenty (20) consecutive trading days at any time prior to the expiration date of the grants. The amount of Market RSUs earned will not exceed 100% of the Market RSUs awarded. The fair value of the Market RSUs and the implied service period is calculated using the Monte Carlo Simulation method.

The following is a summary of non-vested RSU stock activity for the Company for the year ended December 31, 2023.

	Shares	Weighted Average Grant Date Fair Value
Non-vested at December 31, 2022	2,409,698	\$ 43.63
Granted	927,838	34.83
Vested	(565,790)	41.87
Forfeited	(543,510)	47.39
Non-vested at December 31, 2023	<u>2,228,236</u>	<u>\$ 39.50</u>

During 2022 and 2021, the Company granted 885,939 and 1,329,508 RSUs, respectively. The weighted average grant date fair value for RSUs granted in 2022 and 2021 was \$37.75 and \$58.19, respectively.

For the years ended December 31, 2023, 2022 and 2021, the Company recognized \$17.6 million, \$19.4 million and \$11.4 million in compensation expense for RSUs, respectively.

At December 31, 2023, unrecognized compensation costs relating to RSUs amounted to \$77.1 million which will be recognized over a weighted average period of 3.83 years.

Subsequently in February 2024, the Company granted 457,167 RSUs with a weighted average grant date fair value of \$39.40 with unrecognized compensation expense of \$18.0 million which will be recognized over a weighted average period of 5.01 years.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

The compensation expense for Market RSUs is measured based on their grant date fair value as calculated using the Monte Carlo Simulation and is recognized on a straight-line basis over the average vesting period. The Monte Carlo Simulation used 100,000 simulation paths to assess the expected date of achieving the market price criteria.

For the year ended December 31, 2021, the Company recognized \$4.2 million in compensation expense for Market RSUs. For the year ended December 31, 2021, 575,500 Market RSUs met the performance stock price conditions for the \$45.00, \$48.00 \$50.00 and \$55.00 stock price for twenty consecutive days. The remaining expense of \$3.7 million was fully recognized due to the accelerated vesting.

There were no remaining Market RSUs at year end December 31, 2023 and 2022.

Employee Incentive Compensation

The Company has an incentive compensation framework whereby full-time employees are eligible to receive an annual cash bonus payment plus the opportunity for an annual long-term incentive (“LTI”) equity grant in the form of RSUs. Both cash bonus and LTI equity grants are based on each individual’s base pay and overall Company performance. LTI grants are generally influenced by each individual’s tiered target as a percent of base pay. Total expenses related to the cash bonus for employees were \$1.0 million, \$9.4 million and \$7.7 million for the years ended December 31, 2023, 2022 and 2021, respectively. In addition, for the years ended December 31, 2023, 2022 and 2021 the Company had discretionary special bonuses of \$4.5 million, \$10.5 million and \$4.0 million, respectively, to most full-time employees.

Note 13. Regulatory Matters

Dividends

The Bank, as a North Carolina banking corporation, may pay dividends to shareholders provided the bank does not make distributions that reduce its capital below its applicable required capital, pursuant to North Carolina General Statutes Section 53C-4-7. However, regulatory authorities may limit payment of dividends by any bank when it is determined that such a limitation is in the public interest and is necessary to ensure financial soundness of the bank.

Capital Requirements

The Company and the Bank are subject to various regulatory capital requirements administered by the federal banking agencies. The Basel III Capital Rules, a comprehensive capital framework for U.S. banking organizations, includes quantitative measures designed to ensure capital adequacy. The Basel III Rules require the Company and the Bank to maintain (i) a minimum common equity Tier 1 ratio minimum of 4.50 percent plus a 2.50 percent “capital conservation buffer” (effectively resulting in minimum common equity Tier 1 ratio of 7.00 percent), (ii) Tier 1 risk-based capital minimum of 6.00 percent plus the capital conservation buffer (effectively resulting in a minimum Tier 1 risk-based capital ratio of 8.50 percent), (iii) total risk-based capital ratio minimum of 8.00 percent plus the capital conservation buffer (effectively resulting in a minimum total risk-based capital ratio of 10.5 percent) and (iv) Tier 1 leverage capital ratio minimum of 4.00 percent. The capital conservation buffer is designed to absorb losses during periods of economic stress and effectively increases the minimum required risk-weighted capital ratios. Failure to meet minimum capital requirements may result in certain actions by regulators that could have a direct material effect on the consolidated financial statements.

Based on the most recent notification from the Federal Deposit Insurance Corporation, the Bank is well capitalized under the regulatory framework for prompt corrective action. As of December 31, 2023, the Company and the Bank met all capital adequacy requirements to which they are subject and were not aware of any conditions or events that would change each entity’s well capitalized status.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Capital amounts and ratios as of December 31, 2023 and 2022, are presented in the following table.

	Actual		Minimum Capital Requirement		Minimum To Be Well Capitalized	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
Consolidated - December 31, 2023						
Common Equity Tier 1						
(to Risk-Weighted Assets)	\$ 960,433	11.73 %	\$ 368,549	4.50 %	N/A	N/A
Total Capital						
(to Risk-Weighted Assets)	\$ 1,063,157	12.98 %	\$ 655,198	8.00 %	N/A	N/A
Tier 1 Capital						
(to Risk-Weighted Assets)	\$ 960,433	11.73 %	\$ 491,399	6.00 %	N/A	N/A
Tier 1 Capital						
(to Average Assets)	\$ 960,433	8.58 %	\$ 447,561	4.00 %	N/A	N/A
Bank - December 31, 2023						
Common Equity Tier 1						
(to Risk-Weighted Assets)	\$ 823,478	10.40 %	\$ 356,426	4.50 %	\$ 514,837	6.50%
Total Capital						
(to Risk-Weighted Assets)	\$ 922,876	11.65 %	\$ 633,646	8.00 %	\$ 792,057	10.00 %
Tier 1 Capital						
(to Risk-Weighted Assets)	\$ 823,478	10.40 %	\$ 475,234	6.00 %	\$ 633,646	8.00 %
Tier 1 Capital						
(to Average Assets)	\$ 823,478	7.41 %	\$ 444,480	4.00 %	\$ 555,600	5.00 %
Consolidated - December 31, 2022						
Common Equity Tier 1						
(to Risk-Weighted Assets)	\$ 888,235	12.47 %	\$ 320,446	4.50%	N/A	N/A
Total Capital						
(to Risk-Weighted Assets)	\$ 977,360	13.73 %	\$ 569,681	8.00%	N/A	N/A
Tier 1 Capital						
(to Risk-Weighted Assets)	\$ 888,235	12.47 %	\$ 427,261	6.00%	N/A	N/A
Tier 1 Capital						
(to Average Assets)	\$ 888,235	9.26 %	\$ 383,499	4.00%	N/A	N/A
Bank - December 31, 2022						
Common Equity Tier 1						
(to Risk-Weighted Assets)	\$ 730,092	10.70 %	\$ 307,179	4.50%	\$ 443,703	6.50%
Total Capital						
(to Risk-Weighted Assets)	\$ 815,577	11.95 %	\$ 546,096	8.00%	\$ 682,620	10.00%
Tier 1 Capital						
(to Risk-Weighted Assets)	\$ 730,092	10.70 %	\$ 409,572	6.00%	\$ 546,096	8.00%
Tier 1 Capital						
(to Average Assets)	\$ 730,092	7.70 %	\$ 379,396	4.00%	\$ 474,245	5.00%

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Note 14. Transactions with Related Parties

The Company has entered into transactions with its directors, officers, significant shareholders, their affiliates, and equity method investments (“related parties”).

The following table provides related party loan activity during 2023:

	Amount
Balance as of December 31, 2022	\$ 21,738
Loan originations	3,723
Loan repayments	(2,537)
Balance as of December 31, 2023	<u>\$ 22,924</u>

Deposits from related parties held by the Company as of December 31, 2023 and 2022 amounted to \$48.6 million and \$63.5 million, respectively.

Transactions with related parties include the following equity method investments: Apiture, Inc. (“Apiture”), Canapi Funds, Cape Fear Collective 1 & 2, OTR, Estrella Landing, Green Sun, Sunvest, HEP and Heelstone.

Apiture is a digital banking solution for financial institutions. The Canapi Funds are investment funds which focus on providing venture capital to new and emerging financial technology companies. Each of Cape Fear Collective 1 & 2 is a “qualified housing project” within the meaning of 12 CFR 362.3 and serves as a special purpose vehicle to purchase residential homes available for sale in the community. OTR is a Community Development Financial Institution (CDFI) certified by the U.S. Department of the Treasury. CDFIs provide credit and financial services to underserved markets and populations to help low-income and other disadvantaged people join the economic mainstream. Estrella Landing is a LIHTC investment that qualifies as an affordable housing project located in Wilmington, NC. Green Sun, Sunvest, HEP, and Heelstone are solar income tax credit projects. See Note 2. Securities, section captioned “Equity Method Accounting,” for further detail on equity method investments.

During the years ended December 31, 2023, 2022 and 2021, the Company paid Apiture \$2.5 million, \$2.0 million and \$1.2 million, respectively, for professional services. During 2023, 2022 and 2021, the Company recognized income from Apiture of \$385 thousand, \$438 thousand and \$601 thousand, respectively, for shared services and rent.

During the years ended December 31, 2022 and 2021, the Company made charitable contributions in the amounts of \$310 thousand and \$352 thousand, respectively, to Collective Impact in New Hanover County, a 501(c)(3) charitable organization (“Collective Impact”). There were no charitable contributions made during the year ended December 31, 2023. Cape Fear Collective Ventures, LLC, a wholly owned subsidiary of Collective Impact, manages each of Cape Fear Collective 1 & 2.

Note 15. Segments

The Company's management reporting process measures the performance of its operating segments based on internal operating structure, which is subject to change from time to time. Accordingly, the Company operates two reportable segments for management reporting purposes as discussed below:

Banking - This segment specializes in providing financing services to small businesses nationwide in targeted industries and deposit-related services to small businesses, consumers and other customers nationwide. The primary source of revenue for this segment is net interest income and secondarily the origination and sale of government guaranteed loans.

Fintech - This segment is involved in making strategic investments into emerging financial technology companies. The primary sources of revenue for this segment are principally gains and losses on equity method and equity security investments and management fees. The Fintech segment is comprised of the Company's direct wholly owned subsidiaries Live Oak Ventures and Canapi Advisors, and the investments held by those entities, as well as the Bank's investment in Apiture.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

The following tables provide financial information for the Company's segments. The information provided under the caption "Other" represents operations not considered to be reportable segments and/or general operating expenses of the Company, and includes the parent company, other non-bank subsidiaries and elimination adjustments to reconcile the results of the operating segments to the consolidated financial statements prepared in conformity with GAAP.

	Banking	Fintech	Other	Consolidated
As of and for the year ended December 31, 2023				
Interest income	\$ 687,655	\$ 39	\$ 581	\$ 688,275
Interest expense	341,789	—	1,181	342,970
Net interest income	345,866	39	(600)	345,305
Provision for loan and lease credit losses	51,323	—	—	51,323
Noninterest income	101,054	8,297	2,382	111,733
Noninterest expense	303,695	10,458	8,732	322,885
Income tax (benefit) expense	9,106	1,034	(1,208)	8,932
Net income (loss)	<u>\$ 82,796</u>	<u>\$ (3,156)</u>	<u>\$ (5,742)</u>	<u>\$ 73,898</u>
Total assets	<u>\$ 11,145,385</u>	<u>\$ 131,310</u>	<u>\$ (5,272)</u>	<u>\$ 11,271,423</u>
As of and for the year ended December 31, 2022				
Interest income	\$ 444,307	\$ 93	\$ 73	\$ 444,473
Interest expense	115,324	—	1,648	116,972
Net interest income	328,983	93	(1,575)	327,501
Provision for loan and lease credit losses	40,943	—	—	40,943
Noninterest income	80,562	155,028	2,402	237,992
Noninterest expense	296,891	9,413	7,922	314,226
Income tax (benefit) expense	(226)	36,016	(1,674)	34,116
Net income (loss)	<u>\$ 71,937</u>	<u>\$ 109,692</u>	<u>\$ (5,421)</u>	<u>\$ 176,208</u>
Total assets	<u>\$ 9,672,458</u>	<u>\$ 124,249</u>	<u>\$ 58,791</u>	<u>\$ 9,855,498</u>
As of and for the year ended December 31, 2021				
Interest income	\$ 360,986	\$ 201	\$ 26	\$ 361,213
Interest expense	63,119	—	1,309	64,428
Net interest income	297,867	201	(1,283)	296,785
Provision for loan and lease credit losses	15,210	—	—	15,210
Noninterest income	114,363	43,141	2,696	160,200
Noninterest expense	215,819	5,395	9,773	230,987
Income tax (benefit) expense	35,539	10,280	(2,026)	43,793
Net income (loss)	<u>\$ 145,662</u>	<u>\$ 27,667</u>	<u>\$ (6,334)</u>	<u>\$ 166,995</u>
Total assets	<u>\$ 8,053,212</u>	<u>\$ 121,889</u>	<u>\$ 38,292</u>	<u>\$ 8,213,393</u>

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Note 16. Parent Company Only Financial Statements

The following balance sheets, statements of income and statements of cash flows are for Live Oak Bancshares, Inc.

Balance Sheets

	As of December 31,	
	2023	2022
Assets		
Cash and cash equivalents	\$ 81,897	\$ 103,238
Investment in subsidiaries	843,978	704,905
Other assets	14,518	50,801
Total assets	<u>\$ 940,393</u>	<u>\$ 858,944</u>
Liabilities and Shareholders' Equity		
Borrowings	\$ 23,354	\$ 33,203
Other liabilities	14,373	14,708
Total liabilities	<u>37,727</u>	<u>47,911</u>
Shareholders' equity:		
Common stock	344,568	330,854
Retained earnings	642,817	572,497
Accumulated other comprehensive loss	(84,719)	(92,318)
Total shareholders' equity	<u>902,666</u>	<u>811,033</u>
Total liabilities and shareholders' equity	<u>\$ 940,393</u>	<u>\$ 858,944</u>

Statements of Income

	Years ended December 31,		
	2023	2022	2021
Interest income	\$ 581	\$ 73	\$ 25
Interest expense	1,182	1,648	1,309
Net interest loss	<u>(601)</u>	<u>(1,575)</u>	<u>(1,284)</u>
Noninterest income:			
Other noninterest income	(290)	(107)	716
Total noninterest income	<u>(290)</u>	<u>(107)</u>	<u>716</u>
Noninterest expense:			
Salaries and employee benefits	1,549	1,444	5,120
Professional services expense	1,540	1,163	679
Other expense	2,384	1,907	789
Total noninterest expense	<u>5,473</u>	<u>4,514</u>	<u>6,588</u>
Net loss before equity in undistributed income of subsidiaries	(6,364)	(6,196)	(7,156)
Income tax benefit	(1,010)	(1,358)	(1,615)
Net loss	<u>(5,354)</u>	<u>(4,838)</u>	<u>(5,541)</u>
Equity in undistributed income of subsidiaries in excess of dividends from subsidiaries	79,252	181,046	172,536
Net income attributable to Live Oak Bancshares, Inc.	<u>\$ 73,898</u>	<u>\$ 176,208</u>	<u>\$ 166,995</u>

Statements of Cash Flows

	Years ended December 31,		
	2023	2022	2021
<i>Cash flows from operating activities</i>			
Net income	\$ 73,898	\$ 176,208	\$ 166,995
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Equity in undistributed net income of subsidiaries in excess of dividends of subsidiaries	(79,252)	(181,046)	(172,536)
Subsidiary vesting of restricted stock and other	(10,474)	(14,862)	2,679
Deferred tax (benefit) expense	(15)	434	30,070
Stock option compensation expense	272	942	1,379
Restricted stock compensation expense	17,603	19,405	15,572
Business combination contingent consideration fair value adjustments	125	(86)	99
Net change in other assets	36,283	(2,846)	(22,645)
Net change in other liabilities	299	(1,626)	(11,243)
Net cash provided by (used in) operating activities	<u>38,739</u>	<u>(3,477)</u>	<u>10,370</u>
<i>Cash flows from investing activities</i>			
Capital (investment in) return on subsidiaries	(40,000)	121,750	(26,407)
Purchases of equity security investments	(132)	(182)	(84)
Purchases of equity method investments	(612)	(904)	(237)
Net cash (used in) provided by investing activities	<u>(40,744)</u>	<u>120,664</u>	<u>(26,728)</u>
<i>Cash flows from financing activities</i>			
Proceeds from borrowings	71	12,096	57,675
Repayment of borrowings	(9,920)	(29,627)	(21,429)
Stock option exercises	1,168	2,118	4,158
Employee stock purchase program	1,396	1,067	670
Withholding cash issued in lieu of restricted stock and other	(6,725)	(4,972)	(19,151)
Repurchase and retirement of shares	—	—	(953)
Shareholder dividend distributions	(5,326)	(5,266)	(5,186)
Net cash (used in) provided by financing activities	<u>(19,336)</u>	<u>(24,584)</u>	<u>15,784</u>
Net change in cash and cash equivalents	(21,341)	92,603	(574)
Cash and cash equivalents at beginning of year	103,238	10,635	11,209
Cash and cash equivalents at end of year	<u>\$ 81,897</u>	<u>\$ 103,238</u>	<u>\$ 10,635</u>

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this Annual Report on Form 10-K, the Company carried out an evaluation, under the supervision and with the participation of its management, including its Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of its disclosure controls and procedures. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management was required to apply judgment in evaluating its controls and procedures. Based on this evaluation, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), were effective as of the end of the period covered by this report.

Changes in Internal Control over Financial Reporting

There were no changes in the Company's internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended December 31, 2023, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

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

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

As of December 31, 2023, management assessed the effectiveness of the Company's internal control over financial reporting based on the criteria for effective internal control over financial reporting established in "Internal Control-Integrated Framework (2013)," issued by the Committee of Sponsoring Organizations ("COSO") of the Treadway Commission. Based on the assessment, management determined that the Company maintained effective internal control over financial reporting as of December 31, 2023.

FORVIS, LLP, the independent registered public accounting firm, audited the consolidated financial statements of the Company included in this Annual Report on Form 10-K and has issued an audit report on the Company's internal control over financial reporting as of December 31, 2023. This report entitled "Report of Independent Registered Public Accounting Firm" appears in Item 8.

Item 9B. OTHER INFORMATION

None.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by Item 10 will be included in the Company's definitive proxy statement for the 2024 Annual Meeting of Shareholders (the "Proxy Statement"), under the headings "Proposal 1: Election of Directors," "Qualifications of Directors," "Code of Ethics and Conflict of Interest Policy," "Director Relationships," "Committees of the Board or Directors," "Executive Officers," "Report of the Audit Committee," and "Delinquent Section 16(a) Reports" and is incorporated herein by reference. The Proxy Statement will be filed with the Securities and Exchange Commission pursuant to Regulation 14A within 120 days of the end of our 2023 fiscal year.

Item 11. EXECUTIVE COMPENSATION

The information required by Item 11 will be included in the section of the Proxy Statement entitled "Executive Compensation and Other Matters" under the following headings and is incorporated herein by reference: "Compensation Discussion and Analysis," "Compensation Committee Report," "Summary Compensation and Other Tables," "Potential Payments upon Termination or Change in Control," "Principal Executive Officer Pay Ratio," and "Director Compensation," and in the section of the Proxy Statement entitled "Corporate Governance" under the heading "Compensation Committee Interlocks and Insider Participation."

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

The information required by Item 12 will be included in the Proxy Statement under the headings "Beneficial Ownership of Our Common Stock" and "Executive Compensation and Other Matters - Equity Compensation Plan Information" and is incorporated herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Item 13 will be included in the Corporate Governance section of the Proxy Statement under the headings "Director Independence," "Director Relationships," "Indebtedness of and Transactions with Management," and "Certain Relationships and Related Person Transactions" and is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by Item 14 will be included in the Proxy Statement under the heading "Proposal 3: Ratification of Independent Auditors" and is incorporated herein by reference.

The Independent Registered Public Accounting Firm is FORVIS, LLP (Public Company Accounting Oversight Board Firm ID No. 686) located in Greenville, North Carolina.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) Financial Statements. The following financial statements are filed as part of this Report.

Reports of Independent Registered Public Accounting Firm

Consolidated Balance Sheets as of December 31, 2023 and 2022

Consolidated Statements of Income for the Years Ended December 31, 2023, 2022 and 2021

Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2023, 2022 and 2021

Consolidated Statements of Changes in Shareholders' Equity for the Years Ended December 31, 2023, 2022 and 2021

Consolidated Statements of Cash Flows for the Years Ended December 31, 2023, 2022 and 2021

Notes to Consolidated Financial Statements

(a)(2) Financial Statement Schedules. All applicable financial statement schedules required under Regulation S-X have been included in the Notes to the Consolidated Financial Statements.

(a)(3) Exhibits. The exhibits listed below are filed or furnished as a part of this Annual Report on Form 10-K.

Exhibit No.	Description of Exhibit
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- | | |
|--------|--|
| 3.1 | Amended and Restated Articles of Incorporation of Live Oak Bancshares, Inc. (incorporated by reference to Exhibit 3.1 of the registration statement on Form S-1, filed on June 19, 2015) |
| 3.2 | Amended Bylaws of Live Oak Bancshares, Inc. (incorporated by reference to Exhibit 3.2 of the amended registration statement on Form S-1, filed on July 13, 2015) |
| 4.1 | Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 of the registration statement on Form S-1, filed on June 19, 2015) |
| 4.2 | Description of Securities Registered under Section 12 of the Exchange Act (incorporated by reference to Exhibit 4.3 of the annual report on Form 10-K, filed on February 27, 2020) |
| 10.1 | 2008 Incentive Stock Option Plan, as amended (incorporated by reference to Exhibit 10.1 of the registration statement on Form S-1, filed on June 19, 2015) # |
| 10.2.1 | 2008 Nonstatutory Stock Option Plan, as amended (incorporated by reference to Exhibit 10.2 of the registration statement on Form S-1, filed on June 19, 2015) # |
| 10.2.2 | Amendment to 2008 Nonstatutory Stock Option Plan effective July 1, 2019 (incorporated by reference to Exhibit 10.2 of the quarterly report on Form 10-Q, filed on August 6, 2019) # |
| 10.3 | Second Amended and Restated Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.2 of the current report on Form 8-K filed on May 12, 2021) # |
| 10.4.1 | 2015 Omnibus Stock Incentive Plan as Amended and Restated effective May 24, 2016 (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed on May 27, 2016) # |
| 10.4.2 | Amendment to 2015 Omnibus Stock Incentive Plan dated May 15, 2018 (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed on May 18, 2018) # |
| 10.4.3 | Amendment to 2015 Omnibus Stock Incentive Plan dated May 11, 2021 (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed on May 12, 2021) # |
| 10.4.4 | Amendment to 2015 Omnibus Stock Incentive Plan dated November 14, 2023* # |
| 10.5.1 | Software Service Agreement between Live Oak Banking Company and nCino, LLC, dated November 1, 2012 (incorporated by reference to Exhibit 10.10 of the registration statement on Form S-1 filed on June 19, 2015) |
| 10.5.2 | Amendment to Software Service Agreement dated October 9, 2015, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.7.2 of the 2015 10-K) |

- 10.5.3 Amendment to Software Service Agreement dated September 5, 2018, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.3 of the 2021 10-K)
- 10.5.4 Amendment to Software Service Agreement dated September 21, 2018, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.4 of the 2021 10-K)
- 10.5.5 Renewal Amendment to Software Service Agreement dated January 18, 2019, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.3 of the 2018 10-K)
- 10.5.6 Amendment to Software Service Agreement dated April 1, 2020, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.2.1 of the quarterly report on Form 10-Q, filed on August 5, 2020)
- 10.5.7 Amendment to Software Service Agreement dated April 5, 2020, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.2.2 of the quarterly report on Form 10-Q, filed on August 5, 2020)
- 10.5.8 Amendment to Software Service Agreement dated April 24, 2020, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.2.3 of the quarterly report on Form 10-Q, filed on August 5, 2020)
- 10.5.9 Amendment to Software Service Agreement dated December 1, 2020, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.9 of the 2021 10-K)
- 10.5.10 Amendment to Software Service Agreement dated January 13, 2021, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.10 of the 2021 10-K)
- 10.5.11 Amendment to Software Service Agreement dated January 15, 2021, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.11 of the 2021 10-K)
- 10.5.12 Amendment to Software Service Agreement dated January 23, 2021, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.12 of the 2021 10-K)
- 10.5.13 Amendment to Software Service Agreement dated January 28, 2021, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.13 of the 2021 10-K)
- 10.5.14 Amendment to Software Service Agreement dated February 23, 2021, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.14 of the 2021 10-K)
- 10.5.15 Amendment to Software Service Agreement dated March 8, 2021, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.1.1 of the quarterly report on Form 10-Q, filed on May 5, 2021)
- 10.5.16 Amendment to Software Service Agreement dated April 6, 2021, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.1.2 of the quarterly report on Form 10-Q, filed on May 5, 2021)
- 10.5.17 Amendment to Software Service Agreement dated May 21, 2021, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.1.1 of the quarterly report on Form 10-Q, filed on August 4, 2021)
- 10.5.18 Amendment to Software Service Agreement dated June 11, 2021, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.1.2 of the quarterly report on Form 10-Q, filed on August 4, 2021)
- 10.5.19 Amendment to Software Service Agreement dated July 23, 2021, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.1.3 of the quarterly report on Form 10-Q, filed on August 4, 2021)
- 10.5.20 Amendment to Software Service Agreement dated November 4, 2021, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.20 of the 2022 10-K)
- 10.5.21 Amendment to Software Service Agreement dated October 4, 2022, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.3.1 of the quarterly report on Form 10-Q, filed on November 2, 2022)

- 10.5.22 Amendment to Software Service Agreement dated October 16, 2022, between Live Oak Banking Company and nCino Inc. (incorporated by reference to Exhibit 10.3.2 of the quarterly report on Form 10-Q, filed on November 2, 2022)
- 10.5.23 Amendment to Software Service Agreement dated November 3, 2022, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.23 of the annual report on Form 10-K, filed on February 23, 2023)
- 10.5.24 Amendment to Software Service Agreement dated November 15, 2022, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.24 of the annual report on Form 10-K, filed on February 23, 2023)
- 10.5.25 Amendment to Software Service Agreement dated January 30, 2023, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.5.25 of the annual report on Form 10-K, filed on February 23, 2023)
- 10.5.26 Amendment to Software Service Agreement dated March 28, 2023, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q, filed on May 3, 2023)
- 10.5.27 Amendment to Software Service Agreement dated June 5, 2023, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.2.1 of the quarterly report on Form 10-Q, filed on August 2, 2023)
- 10.5.28 Amendment to Software Service Agreement dated June 5, 2023, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.2.2 of the quarterly report on Form 10-Q, filed on August 2, 2023)
- 10.5.29 Amendment to Software Service Agreement dated June 8, 2023, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.2.3 of the quarterly report on Form 10-Q, filed on August 2, 2023)
- 10.5.30 Amendment to Software Service Agreement dated July 14, 2023, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.2.4 of the quarterly report on Form 10-Q, filed on August 2, 2023)
- 10.5.31 Amendment to Software Service Agreement dated July 21, 2023, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.2.5 of the quarterly report on Form 10-Q, filed on August 2, 2023)
- 10.5.32 Amendment to Software Service Agreement dated September 12, 2023, between Live Oak Banking Company and nCino, Inc. (incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q, filed on November 3, 2023)
- 10.5.33 Amendment to Software Service Agreement dated November 2, 2023, between Live Oak Banking Company and nCino, Inc.*
- 10.6.1 Form of Stock Option Award Agreement for executive officers under the 2015 Omnibus Stock Incentive Plan (incorporated by reference to Exhibit 10.8 of the 2015 10-K) #
- 10.6.2 Form of RSU Award Agreement for certain executive officers (incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on February 14, 2020) #
- 10.6.3 Form of RSU Award Agreement for certain executive officers (incorporated by reference to Exhibit 99.2 of the current report on Form 8-K filed on February 24, 2021) #
- 10.6.4 RSU Award Agreement for M. Huntley Garriott, Jr. (incorporated by reference to Exhibit 99.3 of the current report on Form 8-K filed on February 24, 2021) #
- 10.6.5 RSU Award Agreement for William C. Losch, III (incorporated by reference to Exhibit 10.2 of the quarterly report on Form 10-Q filed on November 3, 2021) #
- 10.6.6 Form of RSU Award Agreement for certain executive officers (incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on February 18, 2022) #
- 10.6.7 Form of 2023 RSU Award Agreement for non-employee directors (incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q filed on August 2, 2023) #

- 10.6.8 Form of RSU Award Agreement for certain executive officers (incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on February 17, 2023) #
- 10.6.9 Letter Amendment to Form of RSU Award Agreements for certain executive officers* #
- 10.6.10 Form of RSU Award Agreement for certain executive officers (incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on February 16, 2024) #
 - 21.1 Subsidiaries of the Registrant*
 - 23.1 Consent of the Independent Registered Public Accounting Firm - FORVIS, LLP*
 - 31.1 Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
 - 31.2 Certification of Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002*
 - 32 Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**
 - 97 Live Oak Bancshares, Inc. Clawback Policy, adopted by the Board of Directors on November 8, 2023*
- 101.INS Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document)
- 101.SCH Inline XBRL Taxonomy Extension Schema Document
- 101.CAL Inline XBRL Taxonomy Extension Calculation Linkbase Document
- 101.DEF Inline XBRL Taxonomy Extension Definition Linkbase Document
- 101.LAB Inline XBRL Taxonomy Extension Label Linkbase Document
- 101.PRE Inline XBRL Taxonomy Extension Presentation Linkbase Document
 - 104 Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

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

** Furnished herewith. This exhibit shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section. Such exhibit shall not be deemed incorporated into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

Denotes management contract or compensatory plan.

Item 16. FORM 10-K SUMMARY

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

SIGNATURES

Pursuant to the requirements of the Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Live Oak Bancshares, Inc.

(Registrant)

Date: February 22, 2024

By: /s/ James S. Mahan III

James S. Mahan III

Chairman and Chief Executive Officer

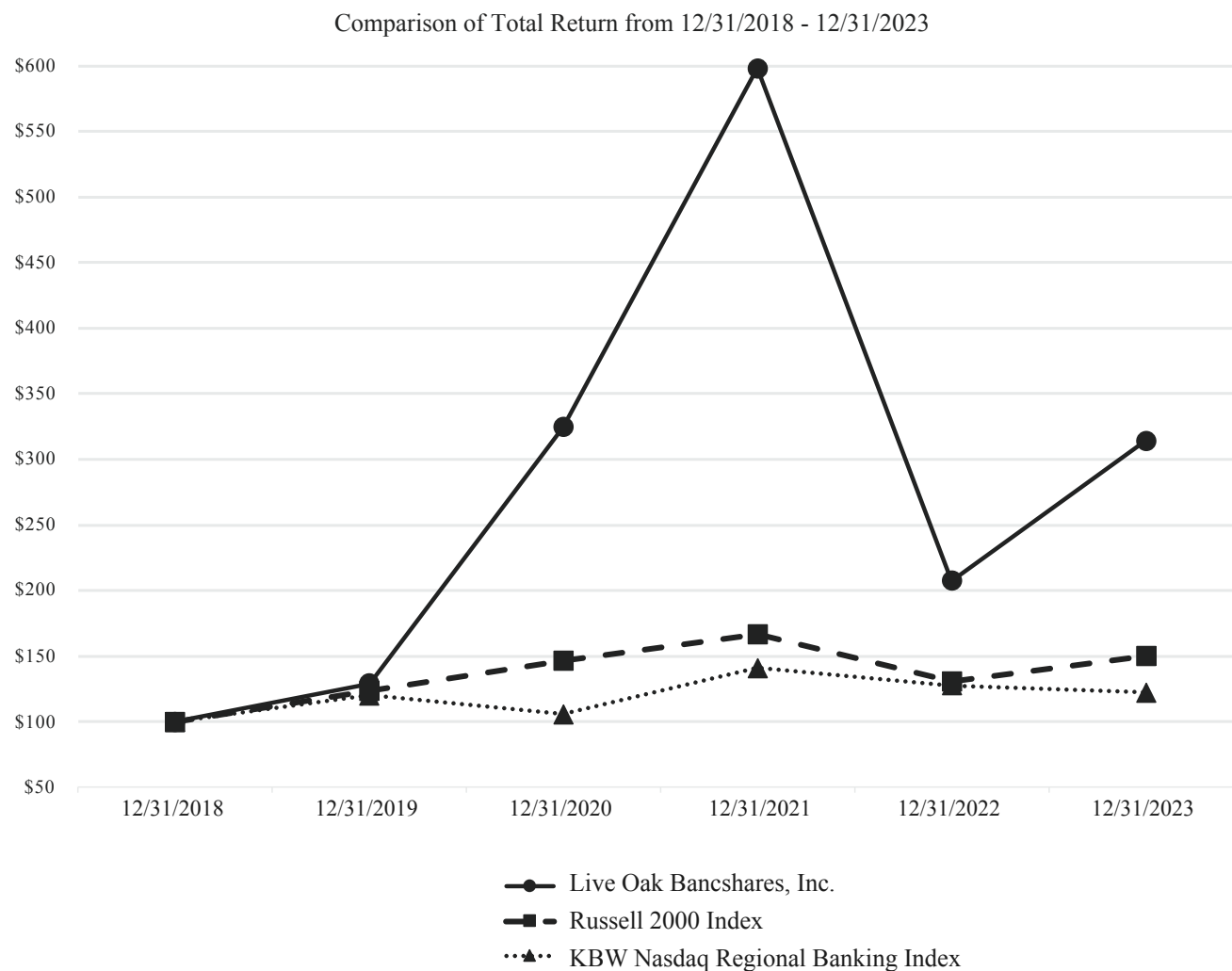
(Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

	Date
<u>/s/ James S. Mahan III</u> James S. Mahan III Chairman and Chief Executive Officer (Principal Executive Officer)	February 22, 2024
<u>/s/ Walter J. Phifer</u> Walter J. Phifer Chief Financial Officer (Principal Financial Officer)	February 22, 2024
<u>/s/ J. Wesley Sutherland</u> J. Wesley Sutherland Chief Accounting Officer (Principal Accounting Officer)	February 22, 2024
<u>/s/ William L. Williams III</u> William L. Williams III Vice Chairman of the Board of Directors	February 22, 2024
<u>/s/ Tonya W. Bradford</u> Tonya W. Bradford Director	February 22, 2024
<u>/s/ William H. Cameron</u> William H. Cameron Director	February 22, 2024
<u>/s/ Diane B. Glossman</u> Diane B. Glossman Director	February 22, 2024
<u>/s/ Glen F. Hoffsis</u> Glen F. Hoffsis Director	February 22, 2024
<u>/s/ David G. Lucht</u> David G. Lucht Director	February 22, 2024
<u>/s/ Miltom E. Petty</u> Miltom E. Petty Director	February 22, 2024
<u>/s/ Neil L. Underwood</u> Neil L. Underwood Director	February 22, 2024
<u>/s/ Yousef A. Valine</u> Yousef A. Valine Director	February 22, 2024

Stock Performance Graph

The Stock Performance Graph set forth below compares the cumulative total stockholder return on our common stock for the period from December 31, 2018, through December 31, 2023, with the cumulative total return of the Russell 2000 Index and the KBW Nasdaq Regional Banking Index over the same period. The comparison assumes \$100 was invested on December 31, 2018, in the common stock of Live Oak Bancshares, Inc., in the Russell 2000 Index and in the KBW Nasdaq Regional Banking Index and assumes reinvestment of dividends, if any.



	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023
Live Oak Bancshares, Inc.	\$ 100	\$ 129	\$ 325	\$ 598	\$ 208	\$ 314
Russell 2000 Index	100	124	146	166	131	150
KBW Nasdaq Regional Banking Index	100	120	106	141	128	123

CORPORATE INFORMATION

EXECUTIVE OFFICERS

James S. Mahan III, Chief Executive Officer & Chairman
William C. Losch III, President
Walter J. Phifer, Chief Financial Officer
Micah S. Davis, Chief Marketing & Communications Officer*
Renato Derraik, Chief Information & Digital Officer*
Stephanie A. Mann, Chief Strategy Officer
Gregory W. Seward, Chief Risk Officer & General Counsel
Steven J. Smits, Chief Credit Officer
Courtney C. Spencer, Chief Experience Officer
J. Wesley Sutherland, Chief Accounting Officer

CORPORATE HEADQUARTERS

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

STOCK INFORMATION

The voting common stock of Live Oak Bancshares, Inc. is traded on the New York Stock Exchange under the symbol "LOB."

DIRECTORS

Tonya W. Bradford
William H. Cameron
Diane B. Glossman
Glen F. Hoffsis
David G. Lucht
Miltom E. Petty
Neil L. Underwood
Yousef A. Valine
William L. Williams III

TRANSFER AGENT

Broadridge Corporate Issuer Solutions, Inc.
51 Mercedes Way
Edgewood, NY 11717

INDEPENDENT AUDITORS

FORVIS, LLP

*Live Oak Banking Company



LiveOak®

BANCSHARES

1741 Tiburon Drive | Wilmington, NC 28403 | liveoakbank.com

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