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DELTA REPORT

10-K

LOB - LIVE OAK BANCSHARES, INC.

10-K - DECEMBER 31, 2023 COMPARED TO 10-K - DECEMBER 31, 2022

The following comparison report has been automatically generated

TOTAL DELTAS 3623

█ CHANGES 689

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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, 2022** **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, 2022** **June 30, 2023**, was approximately **\$1,118,535,078**, **\$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 22, 2023** **February 21, 2024**, there were **44,146,013** **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 **2023 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, 2022** 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, 2022 2023
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Important Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K (this "Report") contains statements that management believes are forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995. These statements generally relate to the financial condition, results of operations, plans, objectives, future performance or business of Live Oak Bancshares, Inc. (the "Company"). They usually can be identified by the use of forward-looking terminology, such as "believes," "expects," or "are expected to," "plans," "projects," "goals," "estimates," "will," "may," "should," "could," "would," "continues," "intends to," "outlook" or "anticipates," or variations of these and similar words, or by discussions of strategies that involve risks and uncertainties. You should not place undue reliance on these statements, as they are subject to risks and uncertainties, including but not limited to, those described in this Report. When considering these forward-looking statements, you should keep in mind these risks and uncertainties, as well as any cautionary statements management may make. Moreover, you should treat these statements as speaking only as of the date they are made and based only on information actually known to the Company at the time. Management undertakes no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise. Forward-

looking statements contained in this Report are based on current expectations, estimates and projections about the Company's business, management's beliefs and assumptions made by management. These statements are not guarantees of the Company's future performance and involve certain risks, uncertainties and assumptions, which are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecasted in the forward-looking statements. These risks, uncertainties and assumptions include, without limitation:

- deterioration in the financial condition of borrowers resulting in significant increases in the Company's ~~loan and lease losses and provisions~~ provision for those 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~~ interest-sensitive assets and liabilities;
- the failure of assumptions underlying the establishment of reserves for possible ~~loan and lease~~ 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~~ 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; 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 16. 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, 2023 January 31, 2024, there were 226,210 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; and (ii) charters for the Audit, and Risk, Compensation, and Nominating and Corporate Governance Committees of the Board of Directors. 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, 2022 December 31, 2023, the Company had 955,943 full-time employees, 19,18 part-time employees and 30,37 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 2022, 2023, the Company launched supported programming through its six Employee Resource Groups ("ERG") and nine saw the number of interest groups grow from nine to create eleven. These employee-led networks provide community and connection through shared interests and experiences. In addition, leaders engaged hiring managers across the Company participated in development opportunities such as interview and bias advocacy, and systemic inclusion training, with 100% of Company recruiters completing DEI and hiring bias training. The Company also updated its maternity/paternity leave policy to offer more time for new parents. Juneteenth National Independence Day and Veterans Day were expanded with sponsored, on-campus events to celebrate and support local, diverse owned small businesses, 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 in 2023 and beyond. initiative. The Company intends to continue to identify, monitor and measure meaningful diversity and inclusion goals, to continue 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 restaurants dining locations that provide healthy options and which can cater to specific dietary needs.

We continue to lean on lessons learned while navigating the COVID-19 pandemic. Flexibility remains is an important component of contributor to employee engagement and job satisfaction. While 2023 brought a return-to-campus initiative for our commitment to overall employee well-being. Our Wilmington headquarters, our 100% cloud-based operations allow our people to transition freely nimblely 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 provide 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:

- An annual A biennial company-wide "all hands" meeting;
- Regularly scheduled town hall hall-style meetings that are led by our key executives and held quarterly, or more often as needed; needed, with a focus on our people, culture, strategy, and performance;
- Periodic posts from the Bank's president Company leadership via our internal enterprise social media network; network and intranet; and
- An open-door environment that encourages communication, collaboration and the free-flow of information; 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, 2022 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 ~~an with~~ on-site ~~restaurant location~~ 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. ~~During the first quarter of 2022, Jolley Asset Management, LLC ("JAM") was merged into LOPW. JAM was previously a wholly owned subsidiary of LOPW.~~

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 [16](#)[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's **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.

In August 2022, Under the Inflation Reduction Act of 2022, (the "IRA") was enacted. Among other things, the IRA imposes there is a new 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, 2022 December 31, 2023, the Company's risk-based capital ratios, as calculated under applicable capital standards were 12.47% 11.73% common equity Tier 1 capital to risk weighted assets, 12.47% 11.73% Tier 1 capital to risk weighted assets, and 13.73% 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, 2022 December 31, 2023 was 9.26% 8.58% compared to 8.87% 9.26% at December 31, 2021 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, 2022 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, 2022 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.

Community Bank Leverage Ratio. As discussed below, in 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act ("EGRRCPA") became law, which directed the federal banking agencies to develop a community bank leverage ratio ("CBLR") of not less than 8 percent and not more than 10 percent for qualifying community banking organizations. EGRRCPA defines a qualifying community banking organization as a depository institution or depository institution holding company with total consolidated assets of

less than \$10 billion, which would include Bancshares and the Bank. A qualifying community banking organization that exceeds the CBLR level established by the agencies is considered to have met: (i) the generally applicable leverage and risk-based capital requirements under the agencies' capital rule; (ii) the capital ratio requirements in order to be considered well capitalized under the agencies' prompt corrective action framework (in the case of insured depository institutions); and (iii) any other applicable capital or leverage requirements. Section 201 of EGRRCPA defines the CBLR as the ratio of a banking organization's CBLR tangible equity to its average total consolidated assets, both as reported on the banking organization's applicable regulatory filing.

The FDIC has set the minimum required CBLR 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, 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, which for established small institutions like the Bank (i.e., those institutions with less than \$10 billion in assets and insured for five years or more), is generally determined by reference to the institution's supervisory ratings, activities. The assessment rate schedule can change from time to time, at the discretion of the FDIC, subject to certain limits. In October 2022, the FDIC adopted a final rule to increase the initial base deposit insurance assessment rate schedules uniformly by 2 basis points beginning with the first quarterly assessment period of 2023. The increased assessment is expected to improve the likelihood that the DIF reserve ratio would reach the statutory minimum of 1.35% by the statutory deadline prescribed under the FDIC's amended restoration plan.

Live Oak Bank's insurance assessments during 2023 and 2022 were \$16.7 million and 2021 were \$9.8 million and \$7.1 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 Cybersecurity 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. Consumers generally may prevent financial institutions from sharing personal financial information with nonaffiliated third parties except for service providers. Additionally, financial institutions generally may not disclose consumer account numbers to any nonaffiliated third party for use in telemarketing, direct mail marketing or other marketing through electronic mail to consumers. The Bank has established a privacy policy that it believes promotes compliance with these federal requirements. 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, certain state laws could potentially impact the Bank's operations, including those we are subject to federal requirements related to the privacy and security of consumer information and notification requirements when unauthorized access to customers' nonpublic and/or acquisition of personal information, has occurred, 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.

In March 2022, the SEC proposed rules that would 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 \$4.1 million \$6.8 million at December 31, 2022 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. Community banks are excluded from the restrictions of the Volcker Rule if (i) the community bank, and every entity that controls it, has total consolidated assets equal to or less than \$10 billion and (ii) trading assets and liabilities of the community bank, and every entity that controls it, are equal to or less than five percent of its total consolidated assets. Bancshares and Live Oak Bank are currently below these thresholds and thus exempt from the Volcker Rule.

USA PATRIOT Act

The Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (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, 2022 December 31, 2023, the Bank's C&D concentration as a percentage of bank capital totaled 80.8% 61.5% and the Bank's CRE concentration, excluding owner-occupied loans, as a percentage of capital totaled 178.1% 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.

In October 2022, Pursuant to SEC rules, the SEC adopted a final rule directing national securities exchanges and associations, including the NYSE, to implement 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 final rule requires us to adopt Company has adopted a clawback policy, within 60 days after such listing standard becomes effective, a copy of which is included as an exhibit to this Report.

Registered Investment Adviser Regulation

LOPW and JAM are is a registered investment advisers 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 and JAM from conducting their its business in the event they fail 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 and JAM.

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.

Economic Growth, Regulatory Relief, and Consumer Protection Act

In 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act ("EGRRCPA") was signed into law, which amended provisions of the Dodd-Frank Act and was intended to ease, and better tailor, regulation, particularly with respect to smaller-sized institutions such as the Company. EGRRCPA's highlights included, among other things: (i) exempting banks with less than \$10 billion in assets from the ability-to-repay requirements for certain qualified residential mortgage loans held in portfolio; (ii) not requiring appraisals for certain transactions valued at less than \$400,000 in rural areas; (iii) clarifying that, subject to various conditions, reciprocal deposits of another depository institution obtained using a deposit broker through a deposit placement network for purposes of obtaining maximum deposit insurance would not be considered brokered deposits subject to the FDIC's brokered-deposit regulations; (iv) raising eligibility for the 18-month exam cycle from \$1 billion to banks with \$3 billion in assets; and (v) simplifying capital calculations by requiring regulators to establish for institutions under \$10 billion in assets a CBLR (tangible equity to average consolidated assets) at a percentage not less than 8% and not greater than 10% that such institutions may elect to replace the general applicable risk-based capital requirements for determining well capitalized status. In 2019, the FDIC passed a final rule on the CBLR, setting the minimum required CBLR at 9 percent. The rule went into effect in 2020. In addition, the Federal Reserve was required to raise the asset threshold under its Small Bank Holding Company Policy Statement from \$1 billion to \$3 billion for bank or savings and loan holding companies that are exempt from consolidated capital requirements, provided that such companies meet certain other conditions such as not engaging in significant nonbanking activities and not having a material amount of debt or equity securities outstanding (other than trust preferred securities) that are registered with the SEC. Consistent with EGRRCPA, the Federal Reserve passed an interim final rule that became effective in 2018 to increase the asset threshold to \$3 billion for qualifying for such policy statement.

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 are/were dependent upon the direct involvement of U.S. financial institutions, such as the Company and the Bank, and have been/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. Furthermore, as the COVID-19 pandemic evolved, federal regulatory authorities continue to issue additional guidance with respect to the implementation, lifecycle, and eligibility requirements for the various CARES Act programs as well as industry-specific recovery procedures for COVID-19. The Economic Aid to Hard-Hit Small Businesses, Nonprofits and Venues Act (the Economic Aid Act) passed on December 27, 2020, allocated additional funding to the PPP, which funds can be used not only by small businesses who have yet to receive a PPP loan but also by some small businesses who may be eligible to receive a second PPP loan. The Economic Aid Act also significantly revised various aspects of the PPP terms and conditions, including certain aspects of the forgiveness process. In March 2021, the American Rescue Plan Act was enabled to provide additional financial relief and economic stimulus.

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, and financial condition, 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.
- Global health crises 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 pandemics, such as the COVID-19 pandemic, could global conflicts may have a material adverse effect negative impact on our business results of operations, and financial condition, 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 ~~will be~~ are subject to heightened regulatory requirements ~~if because~~ our total assets ~~grow and~~ 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 or ACL ("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 to our financial results. Any changes to the SBA program, including changes to the level of guarantee provided by the federal government on SBA loans, may also have a material adverse effect on our business.

We anticipate that gains on the sale of loans will comprise a meaningful component of our revenue in 2023, 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 the non-guaranteed portion of a loan, we share any recognize a loss and/or recovery related to the loan pro-rata with the SBA. If 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.

Global health crises Pandemics, natural disasters, global climate change, acts of terrorism and pandemics 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 a material adverse effect on our business results of and operations and financial condition. may have other adverse effects on us in ways that we are unable to predict.

Global health crises

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 pandemics, such as the COVID-19 pandemic, could lead to the implementation of various responses, such as travel bans other modified business practices may introduce additional operational risks, including cybersecurity and restrictions, quarantines, shelter-in-place execution risks, which may result in inefficiencies or total lockdown orders, as well as business limitations delays, and shutdowns. These measures, among others, were implemented in response to COVID-19. Although COVID-19-related restrictions have largely been lifted, they may be reimposed at any time in response to new coronavirus variants or in response to other diseases or public health concerns. Any such restrictions could adversely affect our operations and ability to, or the operations of our borrowers, customers, and business partners. A number of factors impacting us or our borrowers, customers or business partners could materially adversely affect manner in which we, conduct our business results activities. Disruptions to our customers could result in increased risk of operations, delinquencies, defaults, foreclosures and financial condition, including but not limited to: losses on our loans.

- elevated levels of unemployment may lead to increases in loan delinquencies, losses, and charge-offs;
- disruptions in the supply chains upon which our borrowers depend may have an adverse impact on their financial condition and ability to repay our loans;
- collateral for loans, including real estate, may decline in value, which could cause loan losses to increase;
- demand for our products and services may decline, making it difficult to grow or maintain assets and income;
- noninterest income from premiums paid in the secondary market for the sale of loans may be reduced due to deteriorating market conditions and a decrease in the number of potential buyers;
- the net worth and liquidity of loan guarantors may decline, impairing their ability to honor commitments to us;
- we may experience operational failures due to changes in our normal business practices necessitated by the outbreak and related governmental actions;
- third-party vendors on which we rely may not be able to provide us critical services;
- our risk management policies and practices may be negatively impacted in general, including, but not limited to, the effectiveness and accuracy of our models given the lack of data and comparable precedent; and
- cyber and payment fraud risk may increase as cybercriminals attempt to profit from the disruption given increased online and remote activity.

In response to a resurgence of COVID-19 or a similar public health event, we may take further actions as may be required by government authorities or as we determine are in the best interests of our employees, customers, and business partners. There is no certainty that such measures would be sufficient to mitigate the risks posed by the public health event or would otherwise be satisfactory to government authorities.

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 and may enact in the future, legislation, regulations, and protocols in response to the COVID-19 pandemic, including governmental programs intended to provide economic relief to businesses and individuals. 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.

There remains significant uncertainty regarding the measures that authorities will enact in the future and the ultimate impact of the legislation, regulations, and protocols that have been and will be enacted. For example, the The CARES Act temporarily added a new program titled the Paycheck Protection Program (the "PPP") to the SBA's 7(a) loan program. The PPP was intended to provide economic relief to small businesses nationwide. Under the PPP, small businesses and other entities and individuals could apply for loans from existing SBA lenders and other approved lenders that enrolled in the program, subject to numerous limitations and eligibility criteria. After the PPP launched in 2020, 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. The Economic Aid Act, passed in December 2020, allocated additional funding to the PPP, which funds were used not only by small businesses who had yet to receive a PPP loan but also by some small businesses who were eligible to receive a second PPP loan. The Economic Aid Act also significantly revised various aspects of the PPP terms and conditions, including certain aspects of the forgiveness process. Rules and guidance regarding the PPP were not readily available at the start of the program, and the SBA and other government agencies continued to release additional rules and guidance that changed or updated the requirements and expectations of the regulatory agencies administering the PPP and regulating participating lenders.

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, such as an issue with the eligibility of a borrower to receive a PPP loan, 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 new banking platform in a timely and cost-effective manner or that Apiture will continue to provide any services on which we rely at appropriate service levels or at prices that would be market competitive. We also rely on numerous other vendors and third parties to provide software and solutions comprising our new 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 is growing, 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, due to the COVID-19 pandemic, can heighten these and other operational risks. We may fail to promptly identify or adequately address any such failures, interruptions or security breaches if when they do 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, 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 platform, platforms and services that we use could be breached. Any accidental compromise, 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 could cause confidential customer, borrower, employee, vendor, partner or investor information to be stolen and used for criminal purposes. Security breaches or unauthorized access to confidential information could also expose us to liability related to the loss of the information, time-consuming and expensive litigation, and negative publicity. If 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, 2022 December 31, 2023, the fair value of our available for sale securities portfolio was approximately \$1.0 billion \$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](#) [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. 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 fair value of loans.

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 2023, 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 are determined by our wholly owned subsidiary, GLS, which applies market-derived factors such as prepayment rates, current market conditions and recent loan sales to arrive at valuations 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. We believe that the valuations provided by GLS are at arm's length and reflect fair value. In addition, these valuations are reperformed for indications of bias by an independent third party on a biannual basis. However, if such valuations are not reflective of fair market value, then our business, results of operations and financial condition may be materially and adversely affected.

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 possibility of being unable, at a reasonable cost and within acceptable risk tolerances, to pay obligations as 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 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 loans**, and the interest expense that we pay on interest-bearing liabilities, such as deposits and borrowings. Additionally, changes in interest rates affect the premiums we may receive in connection with the sale of SBA 7(a) and USDA loans in the secondary market, pre-payment speeds of loans for which we own servicing rights, our ability to fund our operations with customer deposits, and the fair value of securities in our investment portfolio. Therefore, any change in general market interest rates, including changes in federal fiscal and monetary policies, affects us more than non-financial companies and can have a significant effect on our net interest income and results of operations. Our assets and liabilities may react differently to changes in overall market rates or conditions because there may be mismatches between the repricing or maturity characteristics of the assets and liabilities. As a result, an increase or decrease in market interest rates could have material adverse effects on our net interest margin, noninterest income and results of operations. In a rising interest rate environment, potential borrowers could seek to defer loans as they wait for interest rates to settle, and borrowers of variable rate loans may be subject to increased interest rates, which could result in a greater rate of prepayment or default. Changes in interest rates may also present additional challenges to our business that we have not anticipated. 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, 2022** **December 31, 2023**, we had **no three** OREO properties. 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, 2022** **December 31, 2023**, the carrying amount of our investment in Apiture was **\$60.3 million**. **\$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, **and will not generate any carried interest for the benefit of the Company**, 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 economies markets in which we and our borrowers operate, as well as the judgment of our regulators. This is an inherently uncertain process, and our loan loss reserves 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, 2023 January 31, 2024, our directors and executive officers and their related entities own, in the aggregate, approximately 24.7% 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 our company 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 have changed in recent years and may continue to change, and we cannot predict the effects of these changes on our business and profitability. Because government regulation greatly affects the business and financial results of all commercial banks and bank holding companies, our cost of compliance could adversely affect our business, results of operations and financial condition.

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 total assets grow financial condition or results of operations.

Various federal banking laws and exceed \$10 billion.

As regulations, including rules adopted by the Federal Reserve pursuant to the requirements of December 31, 2022, our total assets were \$9.86 billion. We anticipate that our total assets may exceed \$10 billion sometime in 2023. In addition to our current regulatory the Dodd-Frank Act, impose additional requirements banks and on bank holding companies with \$10 billion or more in total assets of at least \$10 billion. In addition, banks with total assets of at least \$10 billion are primarily examined directly by the CFPB with respect to various federal consumer protection laws subject to enhanced prudential regulation, 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. Compliance with these additional ongoing regulatory requirements may necessitate additional personnel, the design and implementation of additional internal controls, or the incurrence of significant increased compliance expenses any of which 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 average consolidated total assets minus average tangible equity as well as 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 risk classification, which includes regulatory capital levels and the level of supervisory concern. 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, such as the California Privacy Rights Act. 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 **44,066,517** **44,648,626** shares of common stock outstanding at **January 31, 2023** **January 31, 2024**. In addition, as of **January 31, 2023** **January 31, 2024**, there were outstanding options to purchase **821,029** **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, 2023** **January 31, 2024**, there were **2,400,363** **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 on 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, 2022** **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.

On March 12, 2021, a purported class action was filed against the Company in the United States District Court for the Eastern District of North Carolina, *Joseph McAlear, individually and on behalf of all others similarly situated v. Live Oak Bancshares, Inc. et al.* The complaint alleged the existence of an agreement between the Company, nCino, Inc. and Apiture, LLC in which those companies purportedly sought to restrain the mobility of employees in violation of antitrust laws by agreeing not to solicit or hire each other's employees. The complaint alleged violations of Section 1 of the federal Sherman Act (15 U.S.C. § 1) and violations of Sections 75-1 and 75-2 of the North Carolina General Statutes. The plaintiff sought monetary damages, including treble damages, entitlement to restitution, disgorgement, attorneys' fees, and pre- and post-judgment interest. On October 12, 2021, the Company reached an agreement to settle the case with a proposed class of all persons (with certain exclusions) employed by the Company or its wholly-owned subsidiary, Live Oak Banking Company, Apiture, Inc. or nCino, Inc. in North Carolina at any time from January 27, 2017, through March 31, 2021. In the agreement, the Company agreed to pay \$3.9 million. On October 13, 2021, the plaintiff filed a motion for preliminary approval of the settlement, which the court granted by order entered on November 23, 2021. After class-wide noticing, the plaintiff filed a motion for final approval on March 28, 2022, which the court granted by order entered on April 28, 2022. Pursuant to the terms of the settlement, the settlement became effective on June 11, 2022.

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, 2023** **January 31, 2024**, there were **44,066,517** **44,648,626** voting shares outstanding and **226** **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

None. 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, 2022** **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, 2022 December 31, 2023 as compared to December 31, 2021 December 31, 2022. For a comparison of 2021 2022 results to 2020 2021 and other 2020 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 2021 2022 Form 10-K filed with the SEC on February 24, 2022 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. The Bank identifies and extends lending to credit-worthy borrowers both within specific industries, also called verticals, through expertise within those industries, and more broadly to select borrowers outside of those industries. A significant portion of the loans originated by the Bank are 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.

The As of December 31, 2023, the Company's wholly owned material subsidiaries are/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 an with on-site restaurant location 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.

The As of December 31, 2023, the Bank's wholly owned subsidiaries are/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 was formed in the third quarter of 2022 to hold 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.

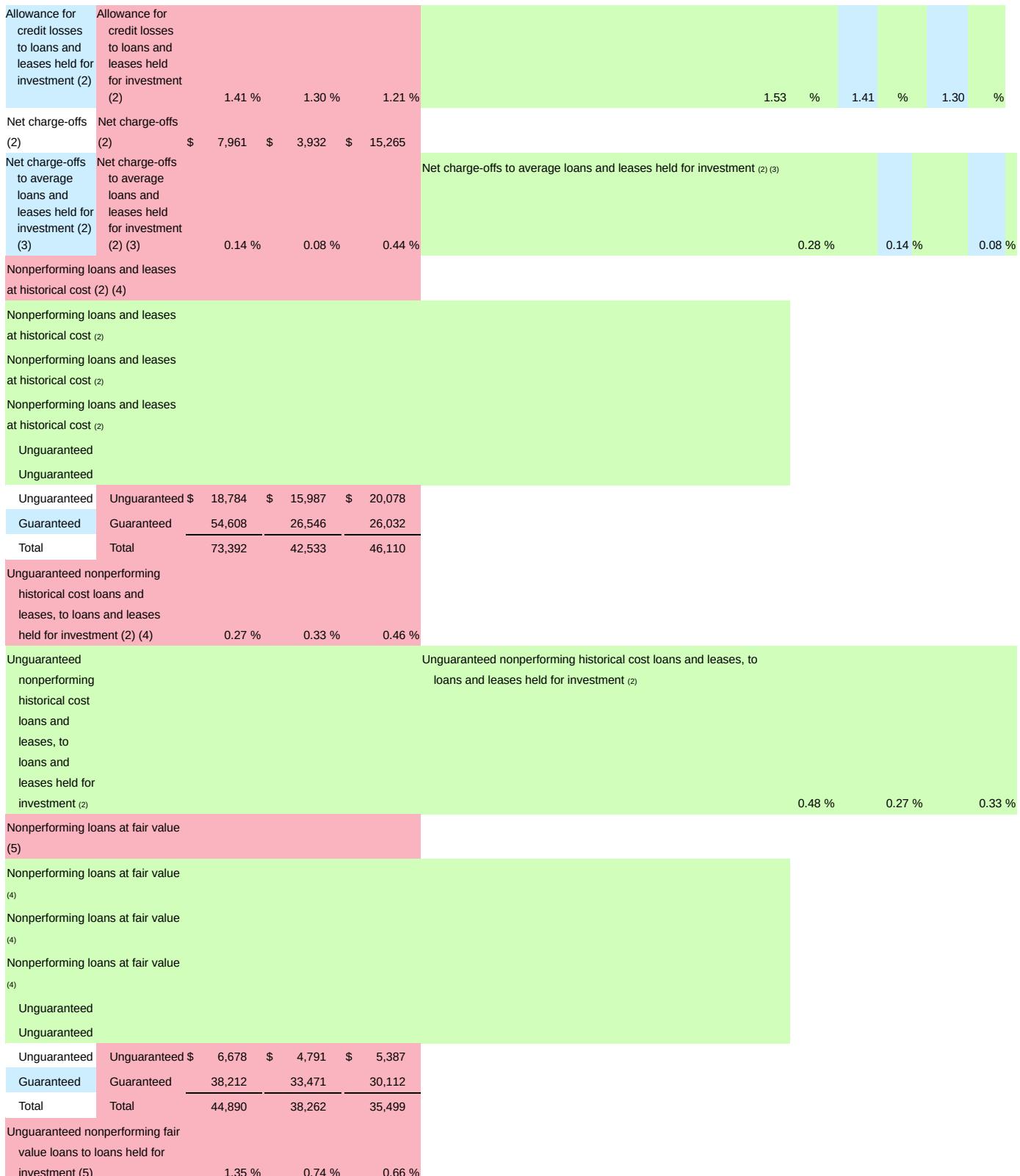
The Company generates revenue primarily from net interest income and secondarily through the origination and sale of government guaranteed loans. Income from the retention of loans is comprised principally of interest income. Income from the sale of loans is comprised of loan servicing revenue and revaluation 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,		
2022	2021	2020

					As of and for the Year Ended December 31,		
					2023	2022	2021
Income	Income						
Statement Data	Statement Data						
Net income	Net income	\$ 176,208	\$ 166,995	\$ 59,543			
Net income							
Net income							
Per Common	Per Common						
Share	Share						
Net income, diluted	Net income, diluted	\$ 3.92	\$ 3.71	\$ 1.43			
Dividends declared	Dividends declared	0.12	0.12	0.12			
Book value	Book value	18.41	16.39	13.38			
Tangible book value (1)	Tangible book value (1)	18.32	16.31	13.28			
Performance	Performance						
Ratios	Ratios						
Return on average assets	Return on average assets						
Return on average assets	Return on average assets	1.96 %	2.03 %	0.85 %	0.69 %	1.96 %	2.03 %
Return on average equity	Return on average equity	21.92	25.58	10.49			
Net interest margin	Net interest margin	3.87	3.86	3.03			
Efficiency ratio (1)	Efficiency ratio (1)	55.57	50.55	69.10			
Noninterest income to total revenue	Noninterest income to total revenue	42.09	35.06	30.17			
Dividend payout ratio	Dividend payout ratio	2.99	3.10	8.20			
Selected Loan Metrics	Selected Loan Metrics						
Loans and leases originated	Loans and leases originated	\$ 4,007,621	\$ 4,480,725	\$ 4,450,198			
Loans and leases originated	Loans and leases originated						
Outstanding balance of sold loans serviced	Outstanding balance of sold loans serviced	3,481,885	3,298,828	3,205,623			
Asset Quality	Asset Quality						
Ratios	Ratios						
Allowance for credit losses to loans and leases held for investment (2)	Allowance for credit losses to loans and leases held for investment (2)						
Allowance for credit losses to loans and leases held for investment (2)	Allowance for credit losses to loans and leases held for investment (2)						



Unguaranteed nonperforming fair value loans to loans held for investment (4)	Unguaranteed nonperforming fair value loans to loans held for investment (4)	1.86 %	1.35 %	0.74 %
Consolidated Capital Ratios	Consolidated Capital Ratios			
Common equity tier 1 capital (to risk-weighted assets)	Common equity tier 1 capital (to risk-weighted assets)	12.47 %	12.38 %	12.15 %
Common equity tier 1 capital (to risk-weighted assets)				
Common equity tier 1 capital (to risk-weighted assets)			11.73 %	12.47 %
Tier 1 leverage capital (to average assets)	Tier 1 leverage capital (to average assets)	9.26	8.87	8.40

(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, investment, at amortized cost.

(4) The year ended December 31, 2020 excludes one \$6.1 million hotel loan classified as held for sale.

(5) 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 2022:

- Total assets were \$9.86 billion at December 31, 2022 and \$8.21 billion at December 31, 2021, a 20.0% increase. Asset growth was driven by significant deposit growth combined with gains from the sale of fintech investments, as discussed below, which was bolstered by substantial loan growth, investments and higher cash balances.2023:
- Loans and leases held for sale and investment increased by \$1.26 billion \$1.12 billion, or 19.0%14.2%. Excluding PPP loans, 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 loans and leases assets which increased \$1.51 billion 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 23.7%14.4%.
- Supporting loan growth, total deposits increased by \$1.39 billion, or 15.6%, to \$7.89 billion \$10.28 billion at the end of 2022. Total loan originations in 2022 were \$4.01 billion compared to \$4.48 billion in 2021. Excluding PPP loans, total 2022 originations increased by \$74.4 million, or 1.9%, compared to 2021.
- Total deposits increased by \$1.77 billion, or 24.9%, to \$8.88 billion at the end of 2022.2023.
- Net income increased \$9.2 million decreased \$102.3 million, or 5.5%58.1%, from \$167.0 million, or \$3.71 per diluted share, to \$176.2 million, or \$3.92 per diluted share, with 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 higher levels 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 a the second consecutive year of significant continued Federal Reserve rate increases, net interest margin remained resilient at 3.87% declined to 3.35% for 20222023 as compared to 3.86%3.87% for 2021, with2022. This decline in net interest margin was outpaced by 2023 loan growth which largely drove an increase in net interest income increasing by \$30.7 million of \$17.8 million, or 10.3%5.4%.
- Income from equity method in the third quarter of 2023, the Company changed the valuation techniques used to estimate the fair value of its servicing rights and equity security investments increased \$104.6 million. This 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 was driven the estimated value of the servicing asset by equity method

investment \$13.7 million and loans measured at fair value by \$1.3 million, or a total impact to noninterest income of \$149.2 million arising from gains related to the 2022 sales of the Company's investments in Finxact, Inc. ("Finxact") and Payrailz, LLC ("Payrailz") \$15.0 million. Partially offsetting the increase in equity method income was a decrease in equity security investment gains related principally to the 2021 Greenlight Financial Technologies, Inc. ("Greenlight") gain of \$44.1 million.

- Net gains on sales of loans decreased \$24.0 million, or 35.7%. This decrease was the result of weaker overall market conditions in 2022 making the sale of loans less profitable than retaining them for a longer period of time. The volume of guaranteed loans sold decreased \$87.6 million, or 13.1%, in 2022 as compared to 2021 while the average net gain on loan sale premium decreased from 110% to 105% in the same comparative periods, respectively.
- The provision for loan and lease credit losses increased \$25.7 million \$10.4 million, largely the result of significant held for investment loan growth combined with charge-off experience impacts and changes in the macroeconomic outlook. Total nonperforming unguaranteed loans and leases as a percentage of total loans and leases held for investment, decreased both excluding loans measured at fair value, increased from 0.33% at the end of 2021 to 0.27% at the end of 2022, 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, 2022 December 31, 2023 and 2021, 2022, were 0.14% 0.28% and 0.08% 0.14%, respectively.
- Salaries and employee benefits increased by \$45.9 million, or 36.7%, during 2022. Excluding special bonus accruals for fintech investment gains in 2022 and 2021, as discussed above, the year-over-year increase was \$39.4 million, or 32.6%. This increase was principally related to continued investment in human resources to support strategic and long term growth initiatives.

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 2022 2023 demonstrated a continuation of solid growth momentum in building predictable long-term core earnings, proactive credit risk management and continued investment into growth initiatives. In 2022, the Company recognized \$149.2 million in cash gains from fintech investments and \$95.9 million in additional capital to support future growth, 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 held-for-sale loan and held-for-investment loan lease portfolios will continue to grow as a result of healthy origination volumes and higher levels of loan retention that are intended to continue to promote long-term recurring revenue and profitability, including its proven customer first focus combined with the continued pursuit of potential opportunities in conventional expanded small business lending outside of within the SBA or and other government guarantee programs, 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 similar similarly named measures represented by other companies, as they may be calculated differently.

Results of Operations

The Company reported net income of \$176.2 million \$73.9 million, or \$1.64 per diluted share, for 2023 compared to \$176.2 million, or \$3.92 per diluted share, for 2022 compared to \$167.0 million, or \$3.71 per diluted share, for 2021, 2022.

This increase The decrease in net income was primarily attributable principally due to the following items:

- Equity 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 increased \$146.0 million, due to a \$120.8 million gain in 2022 related to the sales of the Company's sale of its investment investments in Finxact, combined with Inc. ("Finxact") and Payrailz, LLC ("Payrailz"). To a \$28.4 million gain related to lesser extent, the Company's sale of its investment in Payrailz decrease was also influenced by a \$10.4 million increase in the second provision for loan and third quarters lease credit losses, which was primarily the result of 2022, respectively, 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 **\$30.7 million** **\$17.8 million**, or **10.3% 5.4%**, largely from driven by increases in volume for the held for investment loan and lease portfolio. The growth volumes, partially mitigated by a decrease in net interest income was mitigated by rising margin arising from an increase in interest-bearing liabilities combined with average cost of funds outpacing the average yield on interest earning assets combined with growth interest-earning assets;
- Increase in **interest bearing liabilities**, 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 **\$9.7 million** **\$25.2 million**, or **22.1% 73.8%**, primarily related to a higher level of tax credits in 2022.

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

- Decreased equity security investment gains of **\$41.4 million**, largely due to the Company's **\$44.1 million** second quarter of 2021 fair value gain from its investment in **Greenlight**;
- Provision for loan and lease credit losses increased **\$25.7 million**, or **169.2%**, to **\$40.9 million** for 2022, compared to **\$15.2 million** for 2021. The level of provision expense in 2022 was primarily the result of loan growth, charge-off experience impacts, increased levels of loans classified as held for investment and changes in the macroeconomic outlook;
- Decreased net gains on sales of loans of **\$24.0 million**, or **35.7%**, principally the result of weaker overall market conditions in 2022;
- An increase in noninterest expense of **\$83.2 million**, or **36.0%**, comprised principally of increased salaries and employee benefits up **\$45.9 million**, or **36.7%**, advertising and marketing expense up **\$5.5 million**, or **110.8%**, technology expense up **\$5.8 million**, or **25.5%**, contributions and donations up **\$4.1 million**, or **177.2%**; and increased impairment charges **\$13.0 million** related to renewable energy tax credits. 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 **above the industry average**, **competitive with other digital deposit product offerings**.

For **2022, 2023**, net interest income increased **\$30.7 million** **\$17.8 million**, or **10.3% 5.4%**, to **\$327.5 million** **\$345.3 million** compared to **\$296.8 million** **\$327.5 million** for **2021, 2022**. This increase was principally due to the significant growth in the held for investment loan and lease portfolio outpacing **moderate** growth in interest-bearing liabilities combined with offset by an increase in average cost of funds which exceeded the increase in average yield on interest-earning assets. Excluding PPP loan impacts, of **\$7.0 million**, 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 **\$75.1 million** **\$24.3 million**. Average interest-earning assets increased by **\$776.3 million** **\$1.84 billion**, or **10.1% 21.8%**, to **\$10.30 billion** for **2023**, compared to **\$8.46 billion** for **2022**, compared to **\$7.68 billion** for **2021**, while the yield on average interest-earning assets increased **five-five 143** basis points to **5.25% 6.68%**. The cost of funds on interest-bearing liabilities for **2022, 2023** increased **sixty 212** basis points to **1.47% 3.59%**, and the average balance of interest-bearing liabilities increased by **\$529.1 million** **\$1.57 billion**, or **7.1% 19.6%**, over **2021, 2022**.

The increase in average interest-bearing liabilities was **also** largely driven by funding for significant loan originations and **growth**. This increase was muted by a **\$884.7 million** reduction in average borrowings largely related to Paycheck Protection Program Liquidity Facility, or **PPPLF**, repayments in **2022**, **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 **\$83.2 million** as compared to an increase **\$243.8 million** outpacing **growth** in interest expense of **\$52.5 million** **\$226.0 million** for **2022, 2023** compared to **2021**. For **2021** compared to **2022, 2022**. The net interest margin **increased** decreased from **3.86% 3.87%** for **2022** to **3.87% 3.35%** for **2023**.

During **2022** and through **February of 2023**, the Federal Reserve increased the federal funds upper target rate by **425 100** basis points and **25** basis points, respectively, to **4.75% 5.5%**. In the **Federal Reserve's February December 2023** press release it stated that it anticipates that ongoing increases to target range will be appropriate. In **December 2022**, the Federal Reserve released its most current federal funds target rate midpoint projections which implied an **increase a decrease** of the median Federal Funds rate to **5.1% 4.6%** by the end of **2023, 2024** and a decrease of approximately **100** basis points to **4.1% 3.6%** by the end of **2024, 2025**. There can be no assurance that any further increases or decreases in the **federal funds Federal Funds** rate will occur, and if they do, the amount and timing of actual increases **adjustments** are subject to change. See Item 7A, Quantitative and Qualitative Disclosures About Market Risk for information about the Company's sensitivity to interest rates.

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

	2022			2021			2020			2023		
	Average	Average	Average	Interest	Interest	Interest	Balance	Yield/Rate	Balance	Interest	Yield/Rate	Balance
	Average	Average	Average	Balance	Interest	Yield/Rate	Balance	Interest	Yield/Rate	Balance	Interest	Yield/Rate
Interest-earning assets:	Interest-earning assets:											
Interest-earning balances in other banks	Interest-earning balances in other banks											
Interest-earning balances in other banks	Interest-earning balances in other banks											
Interest-earning balances in other banks	Interest-earning balances in other banks	\$ 228,866	\$ 3,465	1.51 %	\$ 407,474	\$ 920	0.23 %	\$ 453,260	\$ 2,346	0.52 %	\$ 584,691	\$ 29,487
Federal funds sold	Federal funds sold	109,473	2,796	2.55	18,714	22	0.12	68,873	276	0.40		5.04
Investment securities	Investment securities	995,481	19,667	1.98	797,426	12,533	1.57	643,023	15,016	2.34		5.04 %
Loans held for sale	Loans held for sale	952,606	58,943	6.19	1,111,216	60,044	5.40	1,064,731	58,793	5.52		
Loans and leases held for investment ⁽¹⁾	Loans and leases held for investment ⁽¹⁾	6,174,763	359,602	5.82	5,350,055	287,694	5.38	4,206,539	211,977	5.04		
Total interest-earning assets	Total interest-earning assets	8,461,189	444,473	5.25	7,684,885	361,213	4.70	6,436,426	288,408	4.48		
Less: Allowance for credit losses on loans and leases	Less: Allowance for credit losses on loans and leases	(67,234)			(54,975)			(37,839)				
Noninterest-earning assets	Noninterest-earning assets	576,524			592,237			615,455				
Noninterest-earning assets	Noninterest-earning assets											
Total assets	Total assets	\$ 8,970,479			\$ 8,222,147			\$ 7,014,042				
Interest-bearing liabilities:	Interest-bearing liabilities:											
Interest-bearing liabilities:	Interest-bearing liabilities:											
Interest-bearing checking	Interest-bearing checking											
Interest-bearing checking	Interest-bearing checking											
Interest-bearing checking	Interest-bearing checking	\$ —	\$ —	— %	\$ 76,714	\$ 442	0.58 %	\$ 318,667	\$ 1,853	0.58 %	\$ 231,413	\$ 12,718
Savings	Savings	3,903,151	57,740	1.48	3,077,933	16,667	0.54	1,531,680	16,558	1.08		5.50

(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.

		2022 vs. 2021			2021 vs. 2020			2023 vs. 2022			2022 vs. 2021		
		Increase (Decrease) Due to			Increase (Decrease) Due to			Increase (Decrease) Due to			Increase (Decrease) Due to		
		Rate	Volume	Total	Rate	Volume	Total	Rate	Volume	Total	Rate	Volume	Total
		2023 vs. 2022						2023 vs. 2022			2022 vs. 2021		
		Increase (Decrease) Due to						Increase (Decrease) Due to					
		Rate				Rate				Rate	Rate	Volume	Total
Interest income:	Interest income:												
Interest-earning balances in other banks	Interest-earning balances in other banks												
Interest-earning balances in other banks	Interest-earning balances in other banks												
Interest-earning balances in other banks	Interest-earning balances in other banks	\$ 4,099	\$(1,554)	\$ 2,545	\$(1,256)	\$ (170)	\$(1,426)						
Federal funds sold	Federal funds sold	1,562	1,212	2,774	(124)	(130)	(254)						
Investment securities	Investment securities	3,621	3,513	7,134	(5,499)	3,016	(2,483)						
Loans held for sale	Loans held for sale	8,091	(9,192)	(1,101)	(1,288)	2,539	1,251						
Loans and leases held for investment	Loans and leases held for investment	25,720	46,188	71,908	16,159	59,558	75,717						
Total interest income	Total interest income	43,093	40,167	83,260	7,992	64,813	72,805						
Interest expense:	Interest expense:												
Interest-bearing checking	Interest-bearing checking	—	(442)	(442)	(11)	(1,400)	(1,411)						
Interest-bearing checking	Interest-bearing checking												
Savings	Savings	32,735	8,338	41,073	(12,435)	12,544	109						
Money market accounts	Money market accounts	10	(7)	3	(100)	55	(45)						
Certificates of deposit	Certificates of deposit	5,277	9,384	14,661	(25,352)	(3,287)	(28,639)						
Other borrowings	Other borrowings	6,276	(9,027)	(2,751)	840	(111)	729						
Total interest expense	Total interest expense	44,298	8,246	52,544	(37,058)	7,801	(29,257)						
Net interest income	Net interest income	\$(1,205)	\$31,921	\$30,716	\$45,050	\$57,012	\$102,062						

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 2022, 2023, the provision for loan and lease credit losses was \$40.9 million \$51.3 million compared to \$15.2 million \$40.9 million in 2021, 2022, an increase of \$25.7 million \$10.4 million. The 2022 2023 increase in provision was primarily the result of loan growth and charge-off experience impacts, increased levels of loans classified as held for investment and changes in the macroeconomic outlook related impacts.

Loans and leases held for investment at historical cost were \$6.85 billion \$8.25 billion as of December 31, 2022, December 31, 2023, an increase of \$1.97 billion \$1.40 billion, or 40.5% 20.4%, compared compared to December 31, 2021 December 31, 2022. Excluding PPP loans and net unearned fees on those loans, the balance in loans and leases held for investment at historical cost was \$6.84 billion at December 31, 2022, an increase of \$2.22 billion, or 48.2%, over December 31, 2021.

Net charge-offs for loans and leases carried at historical cost were \$8.0 million \$21.4 million, or 0.14% 0.28% of average loans and leases held for investment carried at historical amortized cost, excluding loans measured at fair value, for 2022, 2023, compared to net charge-offs of \$3.9 million \$8.0 million, or 0.08% 0.14%, for 2021, 2022, an increase of \$4.0 million \$13.4 million, or 102.5% 168.5%. The increase in net charge-offs for 2022 2023 was anticipated following the expiration of government subsidies and the return primarily isolated to expected losses consistent with pre-Covid historical experience. Net charge-offs are a key element of historical experience in the Company's estimation of the allowance for credit losses losses on loans and leases.

In addition, nonperforming loans and leases not guaranteed by the SBA or USDA, excluding \$6.7 million \$7.2 million and \$4.8 million \$6.7 million accounted for under the fair value option at December 31, 2022 December 31, 2023 and 2021, 2022, respectively, totaled \$18.8 million \$39.3 million, which was 0.27% 0.48% of the held for investment loan and lease portfolio carried at historical cost at December 31, 2022 December 31, 2023, compared to \$16.0 million \$18.8 million, or 0.33% 0.27% of loans and leases held for investment carried at historical cost at December 31, 2021 December 31, 2022. Nonperforming loans and leases carried at historical cost which are not guaranteed by the SBA or USDA were 0.27% and 0.35% of the historical cost portion of the held for investment loan and lease portfolio, excluding PPP loans, at December 31, 2022 and 2021, respectively.

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 (loss) 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,			2021/2022 Increase		2020/2021 Increase			
				(Decrease)		(Decrease)			
	2022	2021	2020	Amount	Percent	Amount	Percent		
Years Ended December 31,							Years Ended December 31		
2023							2023		
Noninterest income	Noninterest income						2022	2021	
Loan servicing revenue									
Loan servicing revenue									
Loan servicing revenue	\$ 25,359	\$ 25,219	\$ 26,600	\$ 140	0.56 %	\$ (1,381)	(5.19%)	\$ 27,399	
Loan servicing asset revaluation									
Loan servicing asset revaluation	(16,577)	(11,726)	(9,958)	(4,851)	(41.37)	(1,768)	(17.75)		
Net gains on sales of loans	Net gains on sales of loans								
Net gains on sales of loans	43,244	67,280	49,473	(24,036)	(35.73)	17,807	35.99		
Net gain (loss) on loans accounted for under the fair value option									
Net gain (loss) on loans accounted for under the fair value option	1,046	4,257	(13,083)	(3,211)	(75.43)	17,340	132.54		
Equity method investments income (loss)									
Equity method investments income (loss)	144,250	(1,716)	(14,691)	145,966	8,506.18	12,975	88.32		

Equity security investments gains (losses), net	3,355	44,752	14,909	(41,397)	(92.50)	29,843	200.17	
Gain on sale of investment securities available-for-sale, net	—	—	1,880	—	—	(1,880)	(100.00)	
Net (loss) gain on loans accounted for under the fair value option								
Equity method investments (loss) income								
Equity security investments (losses) gains, net								
Lease income								
Lease income								
Lease income	Lease income	10,084	10,263	10,508	(179)	(1.74)	(245)	(2.33)
Management fee income	Management fee income	10,090	6,378	6,352	3,712	58.20	26	0.41
Other noninterest income	Other noninterest income	17,141	15,493	14,010	1,648	10.64	1,483	10.59
Total noninterest income	Total noninterest income	<u>\$237,992</u>	<u>\$160,200</u>	<u>\$86,000</u>	<u>\$77,792</u>	<u>48.56 %</u>	<u>\$74,200</u>	<u>86.28 %</u>
	Total noninterest income	<u>\$111,733</u>	<u>\$</u>	<u>\$</u>	<u>\$237,992</u>	<u>\$</u>	<u>\$160,200</u>	<u>\$</u>
		<u><u>\$111,733</u></u>	<u><u>\$</u></u>	<u><u>\$</u></u>	<u><u>\$237,992</u></u>	<u><u>\$</u></u>	<u><u>\$160,200</u></u>	<u><u>\$</u></u>

Years ended December 31, 2022 December 31, 2023 vs. 2021 2022

For 2022 2023, noninterest income increased decreased by \$77.8 million \$126.3 million, or 48.6% 53.1%, compared to 2021 2022. The increase from decrease over the prior year is primarily the a result of an increase the aggregate \$149.2 million in Finxact and Payrailz gains included in equity method investment 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 \$146.0 million, due to a \$120.8 million \$4.3 million. Partially offsetting the decrease over 2022 was an increased net gain of \$21.5 million related to the Company's sale of its investment in Finxact loan servicing asset revaluation combined with a \$28.4 million gain related to the Company's sale of its investment in Payrailz in the second and third quarters of 2022, respectively. Partially offsetting this increase is decreased equity security investment gains, largely due to the Company's \$44.1 million second quarter 2021 fair value gain from its investment in Greenlight combined with decreased increased net gains on sales of loans of \$24.0 million \$3.3 million and higher losses on loan servicing asset revaluation of \$4.9 million, 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		Three months ended		Three months ended		Three months ended		Three		Three		
	December 31,		September 30,		June 30,		March 31,		months		months		
	2022	2021	2022	2021	2022	2021	2022	2021	ended	ended	months	months	
									December	September	months	months	
									31,	30,	ended	ended	
										June 30,	March 31,		
										2023	2022	2023	2022
Three months ended													
December 31,													
2023													
Amount of loans and leases originated	Amount of loans and leases originated												
		\$1,177,688	\$1,083,623	\$1,005,235	\$1,063,190	\$959,635	\$1,153,693	\$865,063					

Guaranteed portions of loans sold	Guaranteed portions of loans sold	144,258	198,954	148,110	201,903	68,818	130,858	219,703	136,747
Outstanding balance of guaranteed loans sold	Outstanding balance of guaranteed loans sold								
(1)	(1)	2,668,110	2,756,915	2,671,705	2,731,031	2,681,079	2,694,931	2,786,403	2,843,963

Years ended December 31,									
2022		2021		2020		2019		2018	
Amount of loans and leases originated	\$ 4,007,621	\$ 4,480,725	\$ 4,450,198	\$ 2,001,886	\$ 1,765,680				
Guaranteed portions of loans sold	580,889	668,462	542,596	340,374	945,178				
Outstanding balance of guaranteed loans sold (1)	2,668,110	2,756,915	2,819,625	2,746,480	3,045,460				

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	\$ 1,765,680			
Guaranteed portions of loans sold	877,551	580,889	668,462	542,596	340,374	945,178			
Outstanding balance of guaranteed loans sold (1)	2,986,959	2,668,110	2,756,915	2,819,625	2,746,480	3,045,460			

(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, an inflation rate, ancillary income, prepayment speeds and default rates and losses, with the prepayment speed and discount rate being the most sensitive assumptions. For 2022, 2023, there was a negative net gain on loan servicing asset revaluation adjustment of \$4.9 million compared to a net loss of \$16.6 million compared to \$11.7 million for 2021, an increase 2022, resulting in expense a positive change of \$4.9 million \$21.5 million, or 41.4% 129.5%. The decrease increase in the valuation of the servicing asset compared to 2022 was principally due to negative market conditions in 2022.

In consideration the result of the sensitivity 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 discussed above a result of rising interest rates and in Note 5 to the accompanying audited consolidated financial statements, the following table is provided to reflect the effect their impacts on fair value as of December 31, 2022 due to hypothetical changes in yield curve rates.

Change in Yield Curve Assumption market conditions.	Incremental increase (Decrease) in Value
+300 basis point	(\$2,649)
+200 basis point	(1,833)
+100 basis point	(954)
-100 basis point	1,038

Net Gains on Sales of Loans: For 2022, 2023, net gains on sales of loans decreased \$24.0 million increased \$3.3 million, or 35.7% 7.6%, compared to 2021, 2022. The volume of guaranteed loans sold decreased \$87.6 million increased \$296.7 million, or 13.1% 51.1%, to \$580.9 million from \$668.5 million in 2021. The over 2022 while the average net gain on loan sale premium decreased from 110% 108% to 105% in 2021, 2022 and 2022, 2023, respectively. The decrease increase in net gains on sales of loans over 2022 was principally the result of lower higher loan sales volume combined with negative market conditions beginning to materialize in 2022, as discussed above. Accordingly, these market trends influenced the Company's appetite for loan sales during periods of weaker premiums in the current year, sale volume.

Net (Loss) Gain (Loss) on Loans Accounted for Under the Fair Value Option: For 2022, For 2023, the Company had a net gain loss on loans accounted for under the fair value option decreased \$3.2 million, or 75.4% of \$3.5 million compared to 2021 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, 2022 December 31, 2023 and 2021 2022 was \$494.5 million \$388.0 million (all classified as held for investment) and \$670.5 million (\$25.3 million classified as held for sale and \$645.2 million \$494.5 million (all classified as held for investment), respectively, a decrease of \$176.1 million \$106.4

million, or 26.3% 21.5%. The lower incremental net gain loss on loans accounted for under the fair value option during 2022 compared to both prior periods was principally largely the result of the earlier discussed negative market conditions combined with trends between the continued amortization of the underlying loan portfolio. 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,			2021/2022 Increase (Decrease)		2020/2021 Increase (Decrease)		
	2022	2021	2020	Amount	Percent	Amount	Percent	
	Years Ended December 31,							
	Years Ended December 31, 2023						Years Ended December 2023 2022 2021	
Noninterest expense	Noninterest expense							
Salaries and employee benefits	Salaries and employee benefits	\$170,822	\$124,932	\$112,525	\$45,890	36.73 %	\$12,407	11.03 %
Salaries and employee benefits	Salaries and employee benefits							
Non-employee expenses:	Non-employee expenses:							
Travel expense	Travel expense	8,499	5,809	3,451	2,690	46.31	2,358	68.33
Professional services expense	Professional services expense	11,737	15,135	6,359	(3,398)	(22.45)	8,776	138.01
Advertising and marketing expense	Advertising and marketing expense	10,543	5,002	3,510	5,541	110.78	1,492	42.51
Occupancy expense	Occupancy expense	11,088	8,423	8,757	2,665	31.64	(334)	(3.81)
Technology expense	Technology expense	28,434	22,648	15,681	5,786	25.55	6,967	44.43
Equipment expense	Equipment expense	15,120	14,869	15,394	251	1.69	(525)	(3.41)
Other loan origination and maintenance expense	Other loan origination and maintenance expense	13,168	13,529	10,790	(361)	(2.67)	2,739	25.38
Renewable energy tax credit investment impairment	Renewable energy tax credit investment impairment	16,217	3,187	—	13,030	408.85	3,187	100.00
FDIC insurance	FDIC insurance	9,756	7,070	7,473	2,686	37.99	(403)	(5.39)
Contributions and donations	Contributions and donations	6,462	2,331	1,238	4,131	177.22	1,093	88.29
Other expense	Other expense	12,380	8,052	7,498	4,328	53.75	554	7.39

Total non-employee expenses	Total non-employee expenses	143,404	106,055	80,151	37,349	35.22	25,904	32.32	Total noninterest expense	Total noninterest expense	\$314,226	\$230,987	\$192,676	\$83,239	36.04 %	\$38,311	19.88 %
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Total noninterest expense for 2022 increased \$83.2 million \$8.7 million, or 36.0% 2.8%, compared to 2021. The increase in noninterest expense was predominately driven by the following items.

Salaries and employee benefits: Total personnel expense for 2022 increased by \$45.9 million \$4.2 million, or 36.7% 2.5%, compared to 2021. The increase in salaries and employee benefits was principally related to continued investment in human resources to support strategic and growth initiatives. Additional bonus accruals of \$7.5 million and \$3.0 million were included in both the second and third quarters of 2022 related to the earlier discussed Finxact and Payrailz gains, respectively, while the second quarter of 2021 included an additional \$4.0 million bonus accrual, related to the earlier mentioned Greenlight gain. Total full-time equivalent employees increased decreased from 794 at December 31, 2021 to 970 at December 31, 2022 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 \$20.3 million \$17.9 million of stock-based compensation for 2022, compared to \$16.9 million \$20.3 million for 2021. Expenses related to the employee stock purchase program, stock grants, stock option compensation and restricted stock expense are all considered stock-based compensation.

Travel expense: Travel expense increased \$2.7 million, or 46.3%. Travel expenses increased primarily to support the growth in loan origination volume and customer base as travel restrictions have eased combined with inflationary impacts on travel related costs.

Professional services expense: Professional services expense decreased \$3.4 million \$4.0 million, or 22.5% 34.1%, compared to 2021. The 2022. This decrease compared was due to the prior period was largely driven by lower levels of legal fees combined with an insurance recovery of \$1.3 million in 2023 related to previously expensed legal fees.

Advertising and marketing expense: Advertising and marketing expense increased \$5.5 million, or 110.8%, compared to 2021. Increases were largely driven by as a continued investment in the Company's lending and deposit market growth.

Technology expense: Technology expense increased \$5.8 million \$3.4 million, or 25.5% 12.0%, compared to 2021. This increase was primarily related to enhanced investments in the Company's technology resources.

Renewable energy tax credit investment impairment: FDIC insurance: The Company recognized \$16.1 million in impairment charges related to new renewable energy tax credit investment transactions in 2022 as FDIC insurance increased \$6.9 million, or 70.9%, compared to \$3.1 million 2022. This is largely the result of a one-time increase in 2021. Investments of this type generate a return primarily through the realization of income tax credits and other benefits; accordingly, impairment of the investment amount is generally recognized insurance assessment rates effective in conjunction 2023, combined with the realization of related tax benefits. These investments generated federal investment tax credits ongoing growth in 2022 and 2021 of \$16.4 million and \$3.4 million, respectively, which are included in total consolidated assets at the Company's effective tax rates. Company.

Contributions and donations: For 2022, contributions and donations expense increased \$4.1 million decreased \$6.5 million, or 177.2% 100.0%, compared to 2021. This increase was 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 2022 was \$8.9 million and 10.8% compared to \$34.1 million and 16.2% compared to \$43.8 million in 2022. The Company's renewable energy investments generated federal investment tax credits of \$16.4 million in both 2023 and 20.8% in 2021. 2022, which reduced its effective tax rate for both years. The lower effective tax rate of 16.2% 10.8% for 2022 was principally due lower pretax income in 2023 relative to higher consistent levels of tax credits related to renewable energy tax credit transactions, as discussed above 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 16. 15. Segments in the accompanying notes to the consolidated financial statements. Net income (loss) by operating segment is presented below:

		Years ended December 31,		
		2022	2021	2020
		Years ended December 31,		
		2023	2023	2022
Banking	Banking	\$ 71,937	\$145,662	\$57,462
Fintech	Fintech	109,692	27,667	(1,932)
Other	Other	(5,421)	(6,334)	4,013
Consolidated	Consolidated			
net income	net income	\$176,208	\$166,995	\$59,543

Banking

Net income decreased \$73.7 million increased \$10.9 million, or 50.6% 15.1%, compared to 2021, 2022. Key factors influencing this decrease 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 2022, 2023 increased \$25.7 million \$10.4 million, or 169.2% 25.4%, over 2021, 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 decreased \$33.8 million increased \$20.5 million, or 29.6% 25.4%, over 2021. The decrease 2022. This increase was principally driven by a decrease in an incremental net gain on the loan servicing asset revaluation. Also contributing to the increase was higher net gains on sales of loans combined with an increase of loans. Partially offsetting the increased noninterest income was incremental net losses in loan servicing asset revaluation and decrease in net gain arising from 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 \$81.1 million \$6.8 million, or 37.6% 2.3%, compared to 2021, 2022. See the analysis of these categories of noninterest expense included in the above section captioned "Noninterest Expense" for additional discussion.

Partially offsetting the above elements which reduced income was an increase in net interest income of \$31.1 million, or 10.4%, and lower income income tax expense of \$35.8 million, increased \$9.3 million compared to 2021. See the analysis of net interest income included in the above section captioned "Net Interest Income and Margin," as it is predominantly related to the Banking segment. The decrease in income tax expense relative to the Bank is 2022. This was primarily the result of a lower higher level of pretax income combined with higher levels of investment tax credits related to renewable energy investment transactions. income.

Fintech

Net income increased decreased by \$82.0 million \$112.8 million over 2021, 2022. The increase 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. This increase was partially offset by decreased equity security investment gains of \$41.4 million, largely a result of the 2021 gain of \$44.1 million arising from the Company's investment in Greenlight.

Income tax expense increased \$25.7 million decreased \$35.0 million, compared to 2021, 2022. This increase decrease is a product of the above discussed increase decrease in Fintech segment income.

Discussion and Analysis of Financial Condition

Total assets at December 31, 2022, 2023 were \$9.86 billion \$11.27 billion, an increase of \$1.64 billion \$1.42 billion, or 20.0% 14.4%, compared to total assets of \$8.21 billion \$9.86 billion at December 31, 2021, 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 \$1.43 billion \$1.71 billion at December 31, 2022 December 31, 2023, an increase of \$321.6 million \$277.3 million, or 29.0% 19.4%, compared to \$1.11 billion \$1.43 billion at December 31, 2021, 2022. This increase was primarily due to proceeds arising from the Payrailz and Finxact sales reflects growing deposit levels combined with growing deposit levels, maintenance of the Company's targeted liquidity profile.
- Growth in total loans and leases held for investment and held for sale of \$1.26 billion \$1.12 billion resulting from strong origination activity in 2022 and holding loans available for sale for longer periods 2023 of time before sale, as discussed more fully below. Total originations during 2022 were \$4.00 billion \$3.95 billion.

Loans held for sale decreased \$561.9 million, or 50.3%, during 2022, from \$1.12 billion Total deposits were \$10.28 billion at December 31, 2021, 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 \$554.6 million 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 primarily due to paying off the result Company's Fed Funds line of a \$754.7 million transfer of loans, including \$696.6 million in guaranteed loans, from held for sale to held for investment credit in the third quarter of 2022. This transfer was largely due to 2023. See Note 8. Borrowings in the accompanying notes to the impact of market conditions in consolidated financial statements for a rising rate environment influencing management's intent and ability to hold these loans for the foreseeable future. See "Results of Operations" discussion of "Net Gains on Sales" current sources of Loans" for additional information influencing management's intent to hold more loans for investment available debt capacity.

Loans and leases held for investment increased \$1.82 billion, or 33.0%, during 2022, from \$5.52 billion Shareholders' equity at December 31, 2021 2023, was \$902.7 million as compared to \$7.34 billion \$811.0 million at December 31, 2022. The increase book value per share was primarily the result of the above-mentioned loan originations in 2022 combined with increased levels of loans retained as held for investment. Excluding PPP loans, total loans and leases held for investment increased \$2.07 billion, or 39.4%, during 2022. All PPP loans are classified as held for investment and were \$12.9 million at December 31, 2022.

Total deposits were \$8.88 billion \$20.23 at December 31, 2022, an increase of \$1.77 billion, or 24.9%, from \$7.11 billion at December 31, 2021. The increase in deposits was largely driven by significant loan origination efforts.

Borrowings decreased to \$83.2 million at December 31, 2022 2023 from \$318.3 million at December 31, 2021. This decrease was related principally to net curtailments of borrowings through the PPPLF which was paid off in the third quarter of 2022. These PPPLF borrowings are used to help fund PPP loans.

Shareholders' equity at December 31, 2022 was \$811.0 million as compared to \$715.1 million at December 31, 2021. The book value per share was \$18.41 at December 31, 2022 compared to \$16.39 at December 31, 2021. 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 compared to 7.9% for the year ended December 31, 2021. The increase in shareholders' equity for 2022 2023 was principally the result of \$176.2 million \$73.9 million in net income and stock-based compensation expense of \$20.3 million, partially offset by \$17.9 million and other comprehensive loss income associated with negative positive market impacts on the Company's available-for-sale investment portfolio of \$94.2 million \$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, 2022 December 31, 2023 was 12.1 10.9 months from origination date. Approximately 14.8% 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, 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 34.7% 19.8% of the held for sale portfolio is aged between one and two years.

As of December 31, 2022 December 31, 2023 and 2021, 2022, the cumulative total outstanding balance of loans sold since May 2007 totaled \$3.48 billion \$4.24 billion and \$3.30 billion, \$3.48 billion, respectively. The Company generally continues to service loans after the date of sale. As of December 31, 2022 December 31, 2023 and 2021, 2022, the total outstanding balance of loans and leases, including those serviced for others, was \$11.38 billion \$13.28 billion and \$9.96 billion \$11.38 billion, respectively.

Loan and Lease Maturity

As of December 31, 2022 December 31, 2023, \$9.06 billion \$10.60 billion, or 79.6% 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, 2022 December 31, 2023, \$4.82 billion \$5.97 billion, or 42.3% 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, 2022 December 31, 2023, 81.6% 81.5%, or \$6.44 billion \$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, 2022 December 31, 2023, \$1.87 billion \$2.70 billion, or 25.5% 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 \$5.48 billion \$5.96 billion of the total \$7.35 billion \$8.66 billion. The variable rate portion of the total held for investment loans and leases, excluding PPP loans, is 80.4% 81.4%, which reflects the Company's strategy to minimize interest rate risk through the use of variable rate products.

At December 31, 2022										At December 31, 2023									
Remaining Contractual Maturity of Total Held for Investment Loans and Leases										Remaining Contractual Maturity of Total Held for Investment Loans and Leases									
		After One Year		After Five Years and						After One Year		After Five Years and							
		Year		Years and						Year		Years and							
		and		Through		After				and		Years and							
		One Year		Through		Fifteen		Fifteen		and		Years and							
		or Less		Five Years		Years		Years		Through		Fifteen Years		Total		After		Total	
Fixed rate loans and leases:		Fixed rate loans and leases:																	
Commercial & Industrial		Commercial & Industrial																	
Commercial & Industrial																			
Small Business Banking																			
Small Business Banking																			
Small Business Banking		Small Business Banking																	
Specialty Lending		Specialty Lending		\$ 2,762		\$ 34,113		\$ 222,948		\$ 4,920		\$ 264,743							
Energy & Infrastructure		Energy & Infrastructure		5,031		218,806		85,434		—		309,271							
Paycheck Protection Program		Paycheck Protection Program		96		12,189		849		—		13,134							
Total		Total		7,889		265,637		352,261		106,424		732,211							
Construction & Development		Construction & Development																	

Small Business Banking	Small Business Banking	3,270	5,315	18,309	21,280	48,174
Small Business Banking						
Specialty Lending						
Total	Total	3,270	5,315	18,309	21,280	48,174
Commercial Real Estate	Commercial Real Estate					
Small Business Banking						
Small Business Banking						
Small Business Banking	Small Business Banking	6,188	61,988	42,575	137,082	247,833
Specialty Lending	Specialty Lending	9,993	58,385	1,168	5,201	74,747
Energy & Infrastructure	Energy & Infrastructure	—	15,094	11,183	—	26,277
Total	Total	16,181	135,467	54,926	142,283	348,857
Commercial Land	Commercial Land					
Small Business Banking	Small Business Banking	541	174,418	73,452	74,222	322,633
Small Business Banking						
Total	Total	541	174,418	73,452	74,222	322,633
Total fixed rate loans and leases	Total fixed rate loans and leases	27,881	580,837	498,948	344,209	1,451,875
Variable rate loans and leases:	Variable rate loans and leases:					
Commercial & Industrial	Commercial & Industrial					
Commercial & Industrial						
Commercial & Industrial						
Small Business Banking						
Small Business Banking						
Small Business Banking	Small Business Banking	26,811	101,362	1,447,415	98,992	1,674,580
Specialty Lending	Specialty Lending	91,982	438,367	207,692	5,052	743,093
Energy & Infrastructure	Energy & Infrastructure	116,403	15,207	78,896	118,054	328,560
Total	Total	235,196	554,936	1,734,003	222,098	2,746,233
Construction & Development	Construction & Development					

Small Business Banking	Small Business Banking	8,513	8,844	20,859	386,353	424,569
Small Business Banking						
Small Business Banking						
Specialty Lending	Specialty Lending	—	104,069	—	—	104,069
Energy & Infrastructure	Energy & Infrastructure	419	13,334	—	—	13,753
Total	Total	8,932	126,247	20,859	386,353	542,391
Commercial Real Estate	Commercial Real Estate					
Small Business Banking						
Small Business Banking						
Small Business Banking	Small Business Banking	37,635	50,598	306,817	1,678,593	2,073,643
Specialty Lending	Specialty Lending	15,391	212,413	13,871	5,046	246,721
Energy & Infrastructure	Energy & Infrastructure	7,646	11,778	33,293	82,907	135,624
Total	Total	60,672	274,789	353,981	1,766,546	2,455,988
Commercial Land	Commercial Land					
Small Business Banking	Small Business Banking	15	2,881	53,709	95,520	152,125
Total	Total	15	2,881	53,709	95,520	152,125
Total variable rate loans and leases	Total variable rate loans and leases	304,815	958,853	2,162,552	2,470,517	5,896,737
Total held for investment loans and leases	Total held for investment loans and leases	\$332,696	\$1,539,690	\$2,661,500	\$2,814,726	\$7,348,612

(1) Excludes retained loan discount and net deferred fees 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 & Risk Committee of the Board of Directors.

Nonperforming Assets

The Bank places loans and leases on nonaccrual status when they become 90 days past due as to principal or interest payments, or prior to that if management has determined based upon current information available to 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.

Troubled 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 ("TDRs") occur when, because for comparative purposes. See Note 1. Organization and Summary of economic or legal reasons pertaining Significant Accounting Policies in the accompanying notes to the debtor's consolidated financial difficulties, debtors are granted concessions that would not otherwise be considered. Such concessions would include, but are not limited to, statements for additional information about the transfer adoption of ASU 2022-02.

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

Nonperforming assets and TDRs, excluding including loans measured at fair value, at December 31, 2022 December 31, 2023 were \$134.9 million \$192.2 million, which represented a \$54.7 million \$71.8 million, or 68.2% 59.6%, increase from December 31, 2021 December 31, 2022. These nonperforming assets, at December 31, 2022 December 31, 2023 were comprised of \$73.4 million \$185.7 million in nonaccrual loans and leases. At December 31, 2022, there were no leases and \$6.5 million in foreclosed assets. Of the \$134.9 million \$192.2 million of nonperforming assets, and TDRs, \$75.1 million \$141.0 million carried an SBA a government guarantee, leaving an unguaranteed exposure of \$59.8 million \$51.2 million in total nonperforming assets and TDRs at December 31, 2022 December 31, 2023. This represents an increase of \$22.8 million \$25.1 million, or 61.7% 96.6%, from an unguaranteed exposure of \$37.0 million \$26.0 million at December 31, 2021 December 31, 2022.

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

	2022 (1)	2021 (1)		2023	
	2023 (1)	2021 (1)		(1)	2022 (1)
Nonaccrual					
Nonaccrual loans and leases:					

Total nonperforming loans and leases (all on nonaccrual)	Total nonperforming loans and leases (all on nonaccrual)	\$ 73,392	\$ 42,533
Total accruing loans and leases past due 90 days or more	—	—	—
Total nonperforming loans and leases (all on nonaccrual)	—	—	—
Foreclosed assets	Foreclosed assets	—	620
Total troubled debt restructurings	80,604	55,273	—
Less nonaccrual troubled debt restructurings	(19,054)	(18,210)	—
Total performing troubled debt restructuring	61,550	37,063	—
Total nonperforming assets and troubled debt restructurings	\$134,942	\$ 80,216	—
Foreclosed assets	—	—	—
Foreclosed assets	—	6,481	—
Total nonperforming assets	\$141,444	\$ 73,392	—
Allowance for credit losses on loans and leases	Allowance for credit losses on loans and leases	\$ 96,566	\$ 63,584
Total nonperforming loans and leases to total loans and leases held for investment	Total nonperforming loans and leases to total loans and leases held for investment	1.07 %	0.87 %
Total nonperforming loans and leases to total assets	Total nonperforming loans and leases to total assets	0.78 %	0.56 %
Total nonperforming assets and troubled debt restructurings to total assets	Total nonperforming assets and troubled debt restructurings to total assets	1.44 %	1.06 %
Allowance for credit losses on loans and leases to loans and leases held for investment	Allowance for credit losses on loans and leases to loans and leases held for investment	1.41 %	1.30 %
Allowance for credit losses on loans and leases to total nonperforming loans and leases	Allowance for credit losses on loans and leases to total nonperforming loans and leases	131.58 %	149.49 %

(1) Excludes loans measured at fair value.

	2022 (1)	2021 (1)	2023 (1)	2023	2022
				(1)	(1)
Nonaccrual loans and leases guaranteed by U.S. government:	Nonaccrual loans and leases guaranteed by U.S. government:				
Total nonperforming loans and leases guaranteed by the U.S. government (all on nonaccrual)	Total nonperforming loans and leases guaranteed by the U.S. government (all on nonaccrual)	\$ 54,608	\$ 26,546		
Total accruing loans and leases past due 90 days or more guaranteed by the U.S. government		—	—		
Total nonperforming loans and leases guaranteed by the U.S. government (all on nonaccrual)					
Foreclosed assets guaranteed by the U.S. government	Foreclosed assets guaranteed by the U.S. government	—	490		
Total troubled debt restructurings guaranteed by the U.S. government		35,465	26,954		
Less nonaccrual troubled debt restructurings guaranteed by the U.S. government		(14,944)	(10,770)		
Total performing troubled debt restructurings guaranteed by U.S. government		20,521	16,184		
Total nonperforming assets and troubled debt restructurings guaranteed by the U.S. government		\$ 75,129	\$ 43,220		
Foreclosed assets guaranteed by the U.S. government					
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	Allowance for credit losses on loans and leases	\$ 96,566	\$ 63,584	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	Leases	0.27 %	0.33	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	Total assets	0.20 %	0.21	Total nonperforming loans and leases not guaranteed by the U.S. government to total assets	0.36 %	0.20 %
Total nonperforming assets and troubled debt restructurings not guaranteed by the U.S. government to total assets		0.64 %	0.49			
Allowance for credit losses on loans and leases to total nonperforming loans and leases not guaranteed by the U.S. government		514.09 %	397.73	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.

Total nonperforming assets, and troubled debt restructurings, including excluding loans measured at fair value, at December 31, 2022 December 31, 2023 were \$208.3 million \$141.4 million, which represented a \$54.8 million \$68.1 million, or 35.7% 92.7%, increase from December 31, 2021 December 31, 2022. These nonperforming assets, at December 31, 2022 December 31, 2023 were comprised of \$120.4 million \$135.0 million in nonaccrual loans and leases, leases and \$6.5 million in foreclosed assets. Of the \$208.3 million \$141.4 million of nonperforming assets, and TDRs, \$134.1 million \$99.3 million carried an SBA a government guarantee, leaving an unguaranteed exposure of \$74.2 million \$42.1 million in total nonperforming assets and TDRs at December 31, 2022 December 31, 2023. This represents an increase of \$21.7 million \$23.3 million, or 41.4% 124.1%, from an unguaranteed exposure of \$52.5 million \$18.8 million at December 31, 2021 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 9.0% represented 14.6% at December 31, 2022 December 31, 2023, compared to 5.0% 9.0% at December 31, 2021 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 both December 31, December 31, 2023 and 2022 was 4.3% 2022 and December 31, 2021 was 2.3%, respectively.

As of December 31, 2022 December 31, 2023, and December 31, 2021 December 31, 2022, potential problem (also referred to as criticized) and classified loans and leases, excluding loans measured at fair value, totaled \$424.7 million \$785.2 million and \$372.7 million \$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, 2022 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. This compares to the December 31, 2021 portion of criticized and classified loans and leases guaranteed by the SBA or USDA which totaled \$197.2 million and total portfolio unguaranteed exposure risk was \$175.5 million, or 6.3% 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: Wine and Craft Beverage at 11.5%, G

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%

General Lending at 10.3%, Senior Housing at 10.2%, Sponsor Finance at 7.8%, Healthcare at 6.4%, Hotels at 5.9%, Fitness Centers at 5.1%, Agriculture at 4.5% and Senior Care at 4.0%. As of December 31, 2021, 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: Educational Services at 16.1%, Wine and Craft Beverage at 13.7%, Hotels at 11.8%, Entertainment Centers at 10.4%, Healthcare at 9.0%, Fitness Centers at 5.3%, Self-Storage at 4.8%, Agriculture at 4.5% and Veterinary at 4.4%. Of the above listed verticals, Senior Housing and Sponsor Finance 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 \$52.0 million \$360.5 million increase in potential problem and classified loans and leases in 2022 2023 was comprised of several relationships that did not have a government guarantee, largely related to some increased levels of the more recently matured verticals. 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, 2022 December 31, 2023, the Company had a total of \$10.2 million \$37.2 million in loans modified unguaranteed loans and leases in 2023 to borrowers experiencing financial difficulty, all of which remained current with \$14.6 million on principal payment deferral with \$346 thousand in accrued interest 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, 2022 December 31, 2023, and December 31, 2021 December 31, 2022, Risk Grade 5 loans and leases, excluding loans measured at fair value, totaled \$286.5 million \$59.2 million and \$267.4 million \$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	\$ 275,341	92.4%

The increase in Risk Grade 5 loans and leases, exclusive of loans measured at fair value, during 2022 2023 was principally confined to five verticals: Senior Housing (\$43.4 million or 227.2%), General Lending (\$20.5 million or 107.1%), Sponsor Finance (\$13.8 million or 72.3%), Broadband (\$12.4 million or 64.7%) and Community Facilities (\$8.9 million or 46.8%). Partially offsetting the above increases were decreases ten verticals, as reflected above. The increase in Risk Grade 5 loans principally concentrated in four verticals: Educational Services (\$46.9 million or 245.5%), Hotels (\$16.4 million or 85.9%), Entertainment Centers (\$14.6 million or 76.5%) 2023 was largely a result of softer than expected starts for new projects in certain verticals due to delays in both construction completion and Bioenergy (\$9.4 million or 49.4%). The increase in criticized loans in 2022 was related to a small number ramp up time, stemming from downstream effects of loans within mature verticals, pandemic-related impacts. Of the above listed verticals, Senior Housing, Asset-Based Lending and Sponsor Finance is Government Contracting are within the Company's Specialty Lending division while Community Facilities, 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, 2022 December 31, 2023, approximately 91.4% 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, 2022 December 31, 2023, the Company had \$14.8 million \$11.0 million in unguaranteed loans on SBA payment assistance. Management monitors these borrowers closely and has observed financial conditions continuing to improve.

Allowance for Credit Losses on Loans and Leases

The ACL of \$63.6 million at December 31, 2021, increased by \$33.0 million, or 51.9%, to \$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 1.4% 1.5% and 1.3% 1.4% at December 31, 2022 2023 and 2021 2022, respectively. The increase in the ACL during 2022 2023 was primarily due to significant loan growth combined with charge-off experience related impacts, increased levels of loans classified as held for investment and changes in the macroeconomic outlook, 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 \$24.2 million \$65.7 million since December 31, 2021 December 31, 2022. Total loans and leases 90 or more days past due increased \$7.3 million \$68.2 million, or 14.8% 120.6%, compared to December 31, 2021 December 31, 2022. This increase was comprised of a \$4.2 million decrease \$24.0 million increase in unguaranteed exposure combined with an offsetting \$11.5 million a \$44.2 million increase in the guaranteed portion of past due loans compared to December 31, 2021 December 31, 2022. At December 31, 2022 December 31, 2023 and December 31, 2021 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 0.7% 0.8% and 0.6% 0.7%, respectively. Total unguaranteed loans and leases past due were comprised of \$21.2 million \$37.6 million carried at historical cost, an increase of \$4.6 million \$16.4 million, and \$9.6 million and \$9.8 million measured at fair value, an increase of \$4.5 million, \$237 thousand, as of December 31, 2022 December 31, 2023 compared to December 31, 2021 December 31, 2022. The 2022 increase in past dues was largely related to sixteen loans spread across seven mature verticals. Management continues to actively monitor and work to improve asset quality. Management believes the ACL of \$96.6 million \$125.8 million at December 31, 2022 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 valid 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 5.3. Loans and Leases Held for Investment and Credit Quality of the condensed consolidated financial statements in this Report.

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.

	2022				2021					
	Total Loans and Leases ⁽¹⁾		% of Total Loans and Leases ⁽¹⁾		Total Loans and Leases ⁽¹⁾		% of Total Loans and Leases ⁽¹⁾			
	Allowance	Leases ⁽¹⁾	Allowance	Leases ⁽¹⁾	Allowance	Leases ⁽¹⁾	Allowance	Leases ⁽¹⁾		
2023										
Commercial & Industrial	Commercial & Industrial								Total Loans and Leases ⁽¹⁾	
Small Business Banking	Small Business Banking								% of Total Loans and Leases ⁽¹⁾	
Small Business Banking	Small Business Banking	\$ 29,768	\$ 1,756,975	30.83 %	25.63 %	\$ 23,807	\$ 1,124,406	37.44 %	23.03 %	
Specialty Lending	Specialty Lending	26,261	1,023,279	27.19	14.93	8,310	642,444	13.07	13.16	
Energy & Infrastructure	Energy & Infrastructure	5,934	423,529	6.15	6.18	3,250	232,923	5.11	4.77	
Paycheck Protection Program	Paycheck Protection Program	20	13,134	0.02	0.19	2,403	268,375	3.78	5.50	
Total	Total	61,983	3,216,917	64.19	46.93	37,770	2,268,148	59.40	46.46	
Construction & Development	Construction & Development									
Small Business Banking	Small Business Banking	3,003	472,743	3.11	6.90	2,437	277,152	3.83	5.68	
Specialty Lending	Specialty Lending	2,038	104,069	2.11	1.52	379	40,805	0.60	0.84	
Energy & Infrastructure	Energy & Infrastructure	202	13,753	0.21	0.20	619	41,209	0.97	0.84	
Total	Total	5,243	590,565	5.43	8.62	3,435	359,166	5.40	7.36	
Commercial Real Estate	Commercial Real Estate									
Small Business Banking	Small Business Banking									
Small Business Banking	Small Business Banking	15,422	2,154,881	15.97	31.44	13,074	1,594,328	20.56	32.66	
Specialty Lending	Specialty Lending	5,938	319,419	6.15	4.66	1,436	153,716	2.26	3.15	
Energy & Infrastructure	Energy & Infrastructure	4,404	139,778	4.56	2.04	4,558	133,972	7.17	2.74	
Total	Total	25,764	2,614,078	26.68	38.14	19,068	1,882,016	29.99	38.55	
Commercial Land	Commercial Land									

Small Business Banking	Small Business Banking	3,576	432,594	3.70	6.31	3,311	372,335	5.21	7.63
Small Business Banking									
Total									
Total	Total	3,576	432,594	3.70	6.31	3,311	372,335	5.21	7.63
Total	Total	\$ 96,566	\$ 6,854,154	100.00 %	100.00 %	\$ 63,584	\$ 4,881,665	100.00 %	100.00 %

(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.

		2022			2021			2020			2023	
		Net Charge-offs ⁽¹⁾	Average Total Loans & Leases ⁽¹⁾	% of Total Loans ⁽¹⁾	Net Charge-offs ⁽¹⁾	Average Total Loans & Leases ⁽¹⁾	% of Total Loans ⁽¹⁾	Net Charge-offs ⁽¹⁾	Average Total Loans & Leases ⁽¹⁾	% of Total Loans ⁽¹⁾	Average Total Loans & Leases ⁽¹⁾	% of Average Total
Commercial & Industrial	Commercial & Industrial											
Small Business Banking	Small Business Banking											
Small Business Banking	Small Business Banking											
Commercial & Industrial	Commercial & Industrial	\$ 5,157	\$ 1,387,283	0.37 %	\$ 2,740	\$ 895,195	0.31 %	\$ 2,669	\$ 463,811	0.58 %	\$ 13,705	\$ 2,086,469
Specialty Lending	Specialty Lending	1,649	827,731	0.20	—	425,989	—	1,648	165,004	1.00	—	—
Energy & Infrastructure	Energy & Infrastructure	411	350,910	0.12	—	167,521	—	—	61,361	—	—	—
Paycheck Protection Program	Paycheck Protection Program	5	81,250	0.01	—	939,205	—	—	1,271,106	—	—	—
Total	Total	7,222	2,647,174	0.27	2,740	2,427,910	0.11	4,317	1,961,282	0.22	—	—
Construction & Development	Construction & Development											
Small Business Banking	Small Business Banking											
Small Business Banking	Small Business Banking											
Specialty Lending	Specialty Lending	—	72,996	—	—	19,120	—	—	14,446	—	—	—
Energy & Infrastructure	Energy & Infrastructure	—	12,751	—	—	45,639	—	—	43,205	—	—	—
Total	Total	(3)	357,343	—	262	234,289	0.11	—	170,515	—	—	—
Commercial Real Estate	Commercial Real Estate											

Small Business Banking										
Small Business Banking										
Small Business Banking	Small Business Banking	489	1,889,803	0.03	664	1,392,846	0.05	164	821,241	0.02
Specialty Lending	Specialty Lending	—	229,833	—	254	103,445	0.25	—	49,924	—
Energy & Infrastructure	Energy & Infrastructure	(388)	120,783	(0.32)	—	127,456	—	10,155	127,850	7.94
Total	Total	101	2,240,419	—	918	1,623,747	0.06	10,319	999,015	1.03
Commercial Land	Commercial Land	641	422,886	0.15	12	377,967	—	629	316,691	0.20
Small Business Banking										
Small Business Banking										
Total	Total	641	422,886	0.15	12	377,967	—	629	316,691	0.20
Total	Total	\$ 7,961	\$ 5,667,822	0.14 %	\$ 3,932	\$ 4,663,913	0.08 %	\$ 15,265	\$ 3,447,503	0.44 %
Total	Total	\$ 21,373	\$						\$ 7,537,008	0.3 %

(1) Excludes loans measured at fair value.

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

Investment Securities

Investment securities totaled \$1.01 billion \$1.13 billion at December 31, 2022 December 31, 2023, an increase of \$108.7 million \$111.4 million, or 12.0% 11.0%, compared to \$906.1 million \$1.01 billion at December 31, 2021 December 31, 2022. The increase in the investment portfolio for 2022 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 \$367.5 million \$206.9 million in mortgage-backed securities, including \$49.0 million \$14.7 million for purposes of complying with the Community Reinvestment Act and purchases of \$23.2 million \$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, 2022 December 31, 2023, the modified duration of the overall available-for-sale securities portfolio was approximately 6.86 6.45 years.

The following table sets forth the stated maturities and weighted average yields of investment securities at December 31, 2022 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.

Other debt securities	Other debt securities	500	500	5.00	—	—	—	—	—	—	Total securities	\$1,237,633
Total securities	Total securities	\$1,136,190	\$ 500	5.00 %	\$126,674	2.79 %	\$258,107	2.50 %	\$750,909	2.53 %	securities	\$1,237,633

At December 31, 2023 and December 31, 2022, the Company had 98.3% of its total investment securities portfolio in mortgage-backed securities, compared with 98.2% at December 31, 2021, 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.

	2022		2021		2020						
	Total	Percent	Total	Percent	Total	Percent					
	2023							2023		2022	
	Total							Total	Percent	Total	Percent
Period end:	Period end:										
Noninterest-bearing demand deposits	Noninterest-bearing demand deposits	\$ 194,100	2.18 %	\$ 89,279	1.26 %	\$ 75,287	1.32 %				
Noninterest-bearing demand deposits											
Noninterest-bearing demand deposits								\$ 259,270	2.5 %	\$194,100	2.2 %
Interest-bearing deposits:	Interest-bearing deposits:										
	Interest-bearing checking										
Interest-bearing checking	Interest-bearing checking	—	—	—	—	250,060	4.38				
Money market	Money market	128,443	1.45	105,628	1.48	117,010	2.05				
Savings	Savings	4,096,576	46.11	3,507,354	49.32	2,081,561	36.43				
Time deposits	Time deposits	4,465,809	50.26	3,409,783	47.94	3,188,910	55.82				
Total	Total	8,690,828	97.82	7,022,765	98.74	5,637,541	98.68				
Total period end deposits	Total period end deposits	\$8,884,928	100.00 %	\$7,112,044	100.00 %	\$5,712,828	100.00 %	\$10,275,019	100.0	\$8,884,928	100.0
Total uninsured deposits	Total uninsured deposits	\$1,563,189	17.59 %	\$1,197,057	16.83 %	\$ 580,912	10.17 %	\$ 1,457,800	14.2	\$1,563,189	17.6
	2022			2021			2020				
	Average			Average			Average				
	Total	Percent	Rate	Total	Percent	Rate	Total	Percent	Rate		
	2023							Average			
Average:	Average:							Total	Percent	Rate	
Noninterest-bearing demand deposits	Noninterest-bearing demand deposits	\$ 125,062	1.57 %	— %	\$ 77,104	1.18 %	— %	\$ 47,655	0.89 %	— %	

Noninterest-bearing demand deposits															
Noninterest-bearing demand deposits															
Interest-bearing deposits:	Interest-bearing deposits:												\$ 215,327	2.2 %	— %
Interest-bearing checking															
Interest-bearing checking															
Interest-bearing checking	Interest-bearing checking	—	—	—	76,714	1.18	0.58	318,667	5.95	0.58					
Money market	Money market	100,684	1.26	0.30	103,078	1.58	0.29	87,050	1.62	0.40					
Savings	Savings	3,903,151	48.92	1.48	3,077,933	47.23	0.54	1,531,680	28.59	1.08					
Time deposits	Time deposits	3,849,203	48.25	1.48	3,181,591	48.83	1.33	3,373,012	62.95	2.10					
Total average deposits	Total average deposits	\$ 7,978,100	100.00 %	1.46 %	\$ 6,516,420	100.00 %	0.92 %	\$ 5,358,064	100.00 %	1.67 %	Total average deposits	\$ 9,695,486	100.0 %	100.0 %	3.59 %

Deposits increased to \$10.28 billion at December 31, 2023 from \$8.88 billion at December 31, 2022 from \$7.11 billion at December 31, 2021, an increase of \$1.77 billion or 24.9% 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 2022, 2023. Noninterest-bearing deposits increased \$104.8 million or 117.4% 33.6%, during 2022, 2023, and interest-bearing deposits increased \$1.67 billion or 13.2 billion, or 23.8% 15.2%, during the same period.

At December 31, 2022, 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 aggregate balance of uninsured time deposit accounts totaled \$39.1 million. At December 31, 2022, 81.8% of uninsured time deposit accounts were scheduled to mature within one year. The maturity profile of uninsured time deposits at December 31, 2022 December 31, 2023 is as follows:

		More											
		More	than										
		than	six										
		three	months	More									
Maturity	Maturity	Three	months	to	than								
Period	Period	months	to six	twelve	twelve								
Period	Period	or less	months	months	months	Maturity Period							
Amount	Amount												
of time	of time												
deposits	deposits												
in	in												
uninsured	uninsured												
accounts	accounts	\$17,510	\$5,062	\$9,391	\$7,120								

Borrowings

Total borrowings decreased \$235.1 million \$59.8 million at December 31, 2022 December 31, 2023 from December 31, 2021 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 4.25% 6.75% and an interest rate floor of 2.75%. Payments are interest only with all principal and accrued interest due at maturity on October 10, 2025, 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, 2022 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 is 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 a Volatile Liability an Outflow Coverage Ratio ("VLCR" OCR) model to stress outflows in various scenarios with targeted days of liquidity coverage. The VLCR OCR model output is then used by management to ensure adequate liquidity sources are available during those future periods. At December 31, 2022 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, a decrease of 0.9% of total assets from \$3.42 billion, or 41.6% of total assets, at December 31, 2021 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, 2022 December 31, 2023, none of the investment securities portfolio was pledged to secure public deposits or pledged to retail repurchase agreements, leaving \$1.01 billion \$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, 2022 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 also entered into airplane purchase agreement commitments, 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, 2022 December 31, 2023, 2021 2022 and 2020 2021 are presented in the table below.

	Minimum To Be Well Capitalized Under Prompt Corrective Action					
	Actual		Minimum Capital Requirement		Provisions ⁽¹⁾	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
Consolidated						
<i>- December 31, 2023</i>						
Common Equity Tier 1 (to Risk-Weighted Assets)						
Common Equity Tier 1 (to Risk-Weighted Assets)						
Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 960,433	11.73 %	\$ 368,549			4.1
Total Capital (to Risk-Weighted Assets)	\$ 1,063,157	12.98 %	\$ 655,198			8.3
Tier 1 Capital (to Risk-Weighted Assets)	\$ 960,433	11.73 %	\$ 491,399			6.0
Tier 1 Capital (to Average Assets)	\$ 960,433	8.58 %	\$ 447,561			4.3
Bank - December 31, 2023						
Common Equity Tier 1 (to Risk-Weighted Assets)						
Common Equity Tier 1 (to Risk-Weighted Assets)						
Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 823,478	10.40 %	\$ 356,426			4.1
Total Capital (to Risk-Weighted Assets)	\$ 922,876	11.65 %	\$ 633,646			8.3

Tier 1 Capital (to Risk-Weighted Assets)	Tier 1 Capital (to Risk-Weighted Assets)	\$ 823,478	10.40 %	\$ 475,234	6.0
Tier 1 Capital (to Average Assets)	Tier 1 Capital (to Average Assets)	\$ 823,478	7.41 %	\$ 444,480	4.0
Consolidated	Consolidated				
- December 31, 2022	- December 31, 2022				
Common Equity Tier 1 (to Risk-Weighted Assets)	Common Equity Tier 1 (to Risk-Weighted Assets)				
Common Equity Tier 1 (to Risk-Weighted Assets)	Common Equity Tier 1 (to Risk-Weighted Assets)				
Common Equity Tier 1 (to Risk-Weighted Assets)	Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 888,235 12.47 %	\$ 320,446 4.50 %	N/A N/A	\$ 888,235 12.47 %
Total Capital (to Risk-Weighted Assets)	Total Capital (to Risk-Weighted Assets)	\$ 977,360 13.73 %	\$ 569,681 8.00 %	N/A N/A	\$ 977,360 13.73 %
Tier 1 Capital (to Risk-Weighted Assets)	Tier 1 Capital (to Risk-Weighted Assets)	\$ 888,235 12.47 %	\$ 427,261 6.00 %	N/A N/A	\$ 888,235 12.47 %
Tier 1 Capital (to Average Assets)	Tier 1 Capital (to Average Assets)	\$ 888,235 9.26 %	\$ 383,499 4.00 %	N/A N/A	\$ 888,235 9.26 %
Bank - December 31, 2022	Bank - December 31, 2022				
Common Equity Tier 1 (to Risk-Weighted Assets)	Common Equity Tier 1 (to Risk-Weighted Assets)	\$ 730,092 10.70 %	\$ 307,179 4.50 %	\$ 443,703 6.50 %	
Common Equity Tier 1 (to Risk-Weighted Assets)	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)	Total Capital (to Risk-Weighted Assets)	\$ 815,577 11.95 %	\$ 546,096 8.00 %	\$ 682,620 10.00 %	\$ 815,577 11.95 %
Tier 1 Capital (to Risk-Weighted Assets)	Tier 1 Capital (to Risk-Weighted Assets)	\$ 730,092 10.70 %	\$ 409,572 6.00 %	\$ 546,096 8.00 %	\$ 730,092 10.70 %

Tier 1 Capital (to Average Assets)	Tier 1 Capital (to Average Assets)	\$730,092	7.70 %	\$379,396	4.00 %	\$474,245	5.00 %	\$730,092	Tier 1 Capital (to Average Assets)	\$730,092	7.70 %	\$379,396	4.00 %
Consolidated - December 31, 2021													
Common Equity Tier 1 (to Risk-Weighted Assets)													
Common Equity Tier 1 (to Risk-Weighted Assets)													
Common Equity Tier 1 (to Risk-Weighted Assets)	Common Equity Tier 1 (to Risk-Weighted Assets)	\$689,367	12.38 %	\$250,619	4.50 %	N/A	N/A	\$689,367	Total Capital (to Risk-Weighted Assets)	\$753,691	13.53 %	\$250,619	4.50 %
Total Capital (to Risk-Weighted Assets)	Total Capital (to Risk-Weighted Assets)	\$753,691	13.53 %	\$445,544	8.00 %	N/A	N/A	\$753,691	Tier 1 Capital (to Risk-Weighted Assets)	\$689,367	12.38 %	\$334,158	6.00 %
Tier 1 Capital (to Risk-Weighted Assets)	Tier 1 Capital (to Risk-Weighted Assets)	\$689,367	12.38 %	\$334,158	6.00 %	N/A	N/A	\$689,367	Tier 1 Capital (to Average Assets)	\$689,367	8.87 %	\$310,902	4.00 %
Bank - December 31, 2021													
Common Equity Tier 1 (to Risk-Weighted Assets)	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 %
Total Capital (to Risk-Weighted Assets)	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 %
Tier 1 Capital (to Risk-Weighted Assets)	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 %
Tier 1 Capital (to Average Assets)	Tier 1 Capital (to Average Assets)	\$640,652	8.32 %	\$307,931	4.00 %	\$384,914	5.00 %		Consolidated - December 31, 2020				
Common Equity Tier 1 (to Risk-Weighted Assets)													
Common Equity Tier 1 (to Risk-Weighted Assets)	Common Equity Tier 1 (to Risk-Weighted Assets)	\$521,568	12.15 %	\$193,172	4.50 %	N/A	N/A	\$640,652	Total Capital (to Risk-Weighted Assets)	\$704,976	13.26 %	\$425,246	8.00 %
Total Capital (to Risk-Weighted Assets)	Total Capital (to Risk-Weighted Assets)	\$574,621	13.39 %	\$343,417	8.00 %	N/A	N/A	\$704,976	Tier 1 Capital (to Risk-Weighted Assets)	\$521,568	12.15 %	\$384,914	5.00 %

Tier 1 Capital (to Risk-Weighted Assets)	Tier 1 Capital (to Risk-Weighted Assets)	\$521,568	12.15 %	\$257,563	6.00 %	N/A	N/A	Tier 1 Capital (to Risk-Weighted Assets)	\$ 640,652	12.05	12.05 %	\$ 318,934	6.00
Tier 1 Capital (to Average Assets)	Tier 1 Capital (to Average Assets)	\$521,568	8.40 %	\$248,417	4.00 %	N/A	N/A	Tier 1 Capital (to Average Assets)	\$ 640,652	8.32	8.32 %	\$ 307,931	4.00
Bank - December 31, 2020													
Common Equity Tier 1 (to Risk-Weighted Assets)		\$470,069	11.25 %	\$188,012	4.50 %	\$271,573	6.50 %						
Total Capital (to Risk-Weighted Assets)		\$522,305	12.50 %	\$334,243	8.00 %	\$417,804	10.00 %						
Tier 1 Capital (to Risk-Weighted Assets)		\$470,069	11.25 %	\$250,683	6.00 %	\$334,243	8.00 %						
Tier 1 Capital (to Average Assets)		\$470,069	7.60 %	\$247,288	4.00 %	\$309,110	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, 2022 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, 2022 December 31, 2023.

Scenario	Forecasted Unemployment	Approximate increase to ACL	
		\$	%
Severe	Current unemployment levels increase to 5.6% in the first quarter of 2023 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.	\$26.7 30.9 million	27.6 24.6 %
Moderate	Current unemployment levels increase to 4.6% in the first quarter of 2023 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.	\$11.5 17.6 million	11.9 % 14.0
Mild	Current unemployment levels decrease to 4.1% in the first quarter of 2023 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.	\$2.6 6.2 million	2.7 % 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, 2022 December 31, 2023 would increase by approximately \$5.4 million \$6.0 million or 5.6% 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 internal risk rating system and 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 (\$1.7 2.17 billion or 40.9% 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, 2022 December 31, 2023 would increase by approximately \$10.0 million \$13.9 million, or 10.4% 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 and the view of the regulatory authorities toward classification of assets, 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

Loans Management estimates the fair value of loans accounted for under the fair value option involve estimation for credit risk, using a DCF methodology. The estimate incorporates assumptions that market liquidity, and economic condition impacts using factors that are beyond management's control.

Credit risk

The credit element of the loan fair value mark is estimated using the same DCF model discussed above relative participants would use to ACL calculations with key inputs requiring significant judgement and assumptions being: 1) selection of economic forecast, 2) prepayment assumptions, and 3) application of qualitative factors, the most significant of which is related to the loan risk grading process.

Economic forecast

To illustrate, absent any other changes in the model, if the Company selected the severe, moderate, or mild scenarios as described above, the credit mark for fair value loans at December 31, 2022 would have increased by approximately \$2.3 million or 17.1%, \$1.1 million or 8.3%, and \$409 thousand or 3.0%, respectively. 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 estimated 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 fair value mark. To illustrate, if the weighted average prepayment assumption were decreased by 25%, estimate the fair value mark as of December 31, 2022 would increase by approximately \$829 thousand, or 6.0%.

Loan risk grade - qualitative adjustments

To illustrate, if all loans in the Company's five largest industry verticals (\$103.0 million or 23.1% of unguaranteed held for investment loans 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 fair value mark as of December 31, 2022 would increase by \$602 thousand, or 4.4%.

Market risk

Market liquidity and economic condition adjustments are estimated using the sale prices of similar loans based on yield, term assets such as prepayment speeds, default and asset size, severity rates, and a discount rate. This evaluation is inherently subjective as it requires estimates assumptions that are susceptible to significant revision as more information becomes available.

Other Considerations

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
<hr/>	
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 of the factors considered by management in estimating the fair value of loans. In the first quarter of 2021, the Company chose not to elect the fair value for all retained participating interests arising from new government guaranteed loan sales.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, with the losses.

The fair value of servicing rights is highly sensitive to changes in underlying assumptions. Changes in prepayment speed being one 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 most sensitive assumptions. Changes Company's servicing rights included a weighted average prepayment speed equal to these 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 can have 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 material impact variation in a particular assumption on the valuation fair value of the servicing assets rights is calculated without changing any other assumption. Changes in one factor may result in changes in another.

Yield curve rates are considered a significant assumption in the valuation of servicing rights and an analysis of sensitivity is reflected in the section captioned "Noninterest Income" elsewhere in this discussion. See also 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,				Years Ended December 31,				Years Ended December 31,			
				2023				2023			
				2022				2021			
Total shareholders' equity	Total shareholders' equity	\$ 811,033	\$ 715,133	\$ 567,850	Total shareholders' equity	\$ 902,666	\$ 811,033	\$ 715,133			
Less:	Less:										
Goodwill	Goodwill										
Goodwill	Goodwill	1,797	1,797	1,797		1,797		1,797			
Other intangible assets	Other intangible assets	1,873	2,026	2,179	Other intangible assets	1,721	1,873	2,026			
Tangible shareholders' equity (a)	Tangible shareholders' equity (a)	\$ 807,363	\$ 711,310	\$ 563,874	Tangible shareholders' equity (a)	\$ 899,148	\$ 807,363	\$ 711,310			
Shares outstanding (c)	Shares outstanding (c)	44,061,244	43,619,070	42,452,446							
Shares outstanding (c)	Shares outstanding (c)					44,617,673	44,061,244	43,619,070			
Total assets	Total assets	\$ 9,855,498	\$ 8,213,393	\$ 7,872,303							
Total assets	Total assets					\$ 11,271,423	\$ 9,855,498	\$ 8,213,393			
Less:	Less:										
Goodwill	Goodwill										
Goodwill	Goodwill	1,797	1,797	1,797		1,797		1,797			
Other intangible assets	Other intangible assets	1,873	2,026	2,179	Other intangible assets	1,721	1,873	2,026			
Tangible assets (b)	Tangible assets (b)	\$ 9,851,828	\$ 8,209,570	\$ 7,868,327	Tangible assets (b)	\$ 11,267,905	\$ 9,851,828	\$ 8,209,570			
Tangible shareholders' equity to tangible assets (a/b)	Tangible shareholders' equity to tangible assets (a/b)	8.20%	8.66%	7.17%							
Tangible shareholders' equity to tangible assets (a/b)	Tangible shareholders' equity to tangible assets (a/b)					7.98%	8.20%	8.66%			
Tangible book value per share (a/c)	Tangible book value per share (a/c)	\$ 18.32	\$ 16.31	\$ 13.28	Tangible book value per share (a/c)	\$ 20.15	\$ 18.32	\$ 16.31			

Efficiency ratio:	Efficiency ratio:							
Efficiency ratio:								
Efficiency ratio:								
Noninterest expense (d)								
Noninterest expense (d)								
Noninterest expense (d)	\$ 314,226	\$ 230,987	\$ 192,676	\$	322,885	\$ 314,226	\$	230,987
Net interest income	Net interest income				345,305	327,501		296,785
Noninterest income	Noninterest income				111,733	237,992		160,200
Adjusted operating revenue (e)	Adjusted operating revenue (e)	\$ 565,493	\$ 456,985	\$ 280,723	Adjusted operating revenue (e)	\$ 457,038	\$ 565,493	\$ 456,985
Efficiency ratio (d/e)	Efficiency ratio (d/e)	55.57%	50.55%	68.64%		70.65%	55.57%	50.55%
Efficiency ratio (d/e)								
Efficiency ratio (d/e)								

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 **4.8%** **5.0%** as of **December 31, 2022** **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, 2021** **December 31, 2022**, the Company had a cumulative gap in interest-earning assets and interest-bearing liabilities of **4.55%** **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, 2023** **December 31, 2024** and **2024** **2025** and the Company's EVE sensitivity at **December 31, 2022** **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, 2022** 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.

		Estimated		Estimated Increase/Decrease in Net Interest Income	Estimated Percentage Change in EVE
		Estimated	Percentage		
		Increase/Decrease	Change in		
in Net Interest Income		EVE			
		Estimated Increase/Decrease in Net Interest Income		Estimated Increase/Decrease in Net Interest Income	
		in Net Interest Income		Estimated Percentage Change in EVE	
Basis Point ("bp")	Basis Point ("bp")				
Change in Interest Rates	Change in Interest Rates	12 Months Ending December 31, 2023	12 Months Ending December 31, 2024	As of December 31, 2022	Basis Point ("bp") Change in Interest Rates
					12 Months Ending December 31, 2024
+400	+400	8.6%	0.3%	(34.3)%	+400
+300	+300	6.6	0.4	(25.8)	+300
+200	+200	4.5	0.4	(17.5)	+200
+100	+100	2.3	0.1	(7.7)	+100
-100	-100	(2.9)	(1.5)	9.6	-100

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 modestly 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. Annually, the The Company's retail certificate of deposits portfolio has a significant larger maturity event in the first half and last quarters of the year. The Company is also modestly asset 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. Increased fixed rate loan production since 2020 versus prior years, given the historical low market rate environment, has also been a significant driver in the model results.

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.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Report of Independent Registered Public Accounting Firm

To the Shareholders, Board of Directors, and Audit and Risk 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, 2022 December 31, 2023 and 2021, 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, 2022 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, 2022 December 31, 2023 and 2021, 2022, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022 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, 2022 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 23, 2023 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 and Risk 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 \$96.6 million \$125.8 million as of December 31, 2022 December 31, 2023. The determination of the ACL has been identified by the Company as a critical accounting estimate. The ACL is based on relevant information from internal and external resources on past events, current conditions, and reasonable and supportable forecasts and requires enhanced disclosures related to the significant estimates and judgments used in estimating credit losses, as well as the credit quality and underwriting standards of the Company's portfolio. As further 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 identification of individually evaluated loans and leases and quantification of the related ACL, 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 testing the modifications for potential troubled debt restructurings, substandard or worse rated loans and leases, non-accrual loans and leases, and past due loans and leases.

- We tested the calculation of losses 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 the firm's 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

As described in Notes 1 and 10 to the consolidated financial statements, the The Company had \$494.5 million \$388.0 million of loans held for investment as of December 31, 2022 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. The 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 measurements assumptions that market participants would use to estimate fair value of probability of default, loss given default, prepayments, estimated outstanding exposure at similar assets such as prepayment speeds, default and the effective interest severity rates, and a discount rate. If the loan is collateral dependent, The fair value of loans accounted for using the fair value option is determined based on the difference between the fair value sensitive to changes in underlying assumptions. The discount rate is one 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 appraisal, independent valuation, or management's estimation of fair value, which is then adjusted for the cost related to the liquidation of the collateral. 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 calculations in the valuation model related to the credit component of fair value, 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 obtained an understanding of the Company's process for establishing the fair value measurement, including the implementation of the model and basis for development and related adjustments of the qualitative factor components for the credit risk.
- 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 discount related to credit risk, including management's assessment of the adjustments applied to determine the qualitative component model.
- We involved the firm's our internal valuation specialists to assist in:
 - Evaluating the appropriateness of forecast inputs and 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 \$26.3 million \$48.6 million as of December 31, 2022 December 31, 2023. The valuation of the servicing asset has been identified by the Company as a critical accounting estimate. As described within 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 valuation of the servicing asset has been identified by the Company as a critical accounting estimate. 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 determination of the servicing assets' fair value is based on a valuation model that incorporates assumptions that market participants would use in estimating future net servicing income, such as adequate compensation for servicing, the discount rate, the custodial earnings rate, an inflation rate, ancillary income, prepayment speeds and default rates and losses. 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. Prepayment speeds are one of the most significant 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. For instance, In particular, prepayment speeds and default discount rates are unobservable inputs developed using proprietary information from management's internal valuation specialists' database. In particular, by management and the related assumptions around prepayment speeds are the most subjective and provide the most sensitivity to the servicing rights 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 servicing asset to compare the quarterly change, over a twelve-quarter period, and how the Company's discount rate assumptions compared to external prepayment speed data and observable market interest rate trends.

/s/ FORVIS, LLP (Formerly, Dixon Hughes Goodman LLP)

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

Greenville, North Carolina

February 23, 2023 22, 2024

Report of Independent Registered Public Accounting Firm

To the Shareholders, Board of Directors, and Audit and Risk 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, 2022 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, 2022 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, 2022 December 31, 2023 and 2021, 2022, and for each of the three years in the period ended December 31, 2022 December 31, 2023, and our report dated February 23, 2023 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. 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 (Formerly, Dixon Hughes Goodman LLP)

Greenville, North Carolina

February 23, 2023 22, 2024

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

		December 31, 2022	December 31, 2021		
		December 31,		December 31,	December 31,
		2023	2021	2023	2022
Assets	Assets				
Cash and due from banks					
Cash and due from banks					
Cash and due from banks	Cash and due from banks	\$ 280,239	\$ 187,203		
Federal funds sold	Federal funds sold	136,397	16,547		
Certificates of deposit with other banks	Certificates of deposit with other banks	4,000	4,750		
Investment securities available-for-sale	Investment securities available-for-sale	1,014,719	906,052		
Loans held for sale (includes \$25,310 measured at fair value at December 31, 2021)		554,610	1,116,519		
Loans and leases held for investment (includes \$494,458 and \$645,201 measured at fair value, respectively)		7,344,178	5,521,262		
Loans held for sale					

Loans and leases held for investment (includes \$388,036 and \$494,458 measured at fair value, respectively)	Allowance for credit losses on loans and leases	Allowance for credit losses on loans and leases	(96,566)	(63,584)
Net loans and leases	Net loans and leases	7,247,612	5,457,678	
Premises and equipment, net	Premises and equipment, net	263,290	240,196	
Foreclosed assets	Foreclosed assets	—	620	
Servicing assets		26,323	33,574	
Servicing assets (includes \$48,186 and \$26,323 measured at fair value, respectively)				
Other assets	Other assets	328,308	250,254	
Total assets	Total assets	\$9,855,498	\$8,213,393	
Liabilities and Shareholders' Equity	Liabilities and Shareholders' Equity			
Liabilities	Liabilities			
Liabilities				
Deposits:	Deposits:			
Deposits:				
Deposits:				
Noninterest-bearing				
Noninterest-bearing				
Noninterest- bearing	Noninterest- bearing	\$ 194,100	\$ 89,279	
Interest-bearing	Interest-bearing	8,690,828	7,022,765	
Total deposits	Total deposits	8,884,928	7,112,044	
Borrowings	Borrowings	83,203	318,289	
Other liabilities	Other liabilities	76,334	67,927	
Total liabilities	Total liabilities	9,044,465	7,498,260	
Shareholders' equity	Shareholders' equity			
Preferred stock, no par value, 1,000,000 authorized, none issued or outstanding at December 31, 2022 and December 31, 2021	—	—		
Class A common stock, no par value, 100,000,000 shares authorized, 44,061,244 and 43,494,046, shares issued and outstanding at December 31, 2022 and December 31, 2021, respectively	330,854	310,970		

Class B common stock, no par value, 10,000,000 shares authorized, none issued or outstanding at December 31, 2022 and 125,024 shares issued and outstanding at December 31, 2021	—	1,324
Preferred stock, no par value, 1,000,000 authorized, none issued or outstanding at December 31, 2023 and December 31, 2022		
Preferred stock, no par value, 1,000,000 authorized, none issued or outstanding at December 31, 2023 and December 31, 2022		
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		
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	Retained earnings	572,497 400,893
Accumulated other comprehensive (loss) income		(92,318) 1,946
Accumulated other comprehensive loss		
Total shareholders' equity	Total shareholders' equity	811,033 715,133
Total liabilities and shareholders' equity	Total liabilities and shareholders' equity	\$9,855,498 \$8,213,393

See Notes to Consolidated Financial Statements

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

	Years Ended December 31,			Years Ended December 31,
	2022	2021	2020	
Years Ended December 31,				Years Ended December 31,

		2023		2023	2022		2021
Interest income	Interest income						
Loans and fees on loans							
Loans and fees on loans							
Loans and fees on loans	Loans and fees						
on loans	on loans	\$418,545	\$347,738	\$270,770			
Investment securities, taxable	Investment securities, taxable	19,667	12,533	15,016			
Other interest earning assets	Other interest earning assets	6,261	942	2,622			
Total interest income	Total interest income	444,473	361,213	288,408			
Interest expense	Interest expense						
Deposits							
Deposits							
Deposits	Deposits	115,035	59,740	89,726			
Borrowings	Borrowings	1,937	4,688	3,959			
Total interest expense	Total interest expense	116,972	64,428	93,685			
Net interest income	Net interest income	327,501	296,785	194,723			
Provision for loan and lease credit losses	Provision for loan and lease credit losses						
Net interest income after provision for loan and lease credit losses	Net interest income after provision for loan and lease credit losses	286,558	281,575	154,065			
Noninterest income	Noninterest income						
Loan servicing revenue	Loan servicing revenue	25,359	25,219	26,600			
Loan servicing revenue							
Loan servicing asset revaluation	Loan servicing asset revaluation	(16,577)	(11,726)	(9,958)			
Net gains on sales of loans	Net gains on sales of loans	43,244	67,280	49,473			
Net gain (loss) on loans accounted for under the fair value option	1,046	4,257	(13,083)				
Equity method investments income (loss)	144,250	(1,716)	(14,691)				
Equity security investments gains (losses), net	3,355	44,752	14,909				
Gain on sale of investment securities available-for-sale, net	—	—	1,880				

Net (loss) gain on loans accounted for under the fair value option				
Equity method investments (loss) income				
Equity security investments (losses) gains, net				
Lease income				
Lease income	Lease income	10,084	10,263	10,508
Management fee income	Management fee income	10,090	6,378	6,352
Other noninterest income	Other noninterest income	17,141	15,493	14,010
Total noninterest income	Total noninterest income	237,992	160,200	86,000
Noninterest expense	Noninterest expense			
Salaries and employee benefits	Salaries and employee benefits			
Salaries and employee benefits	Salaries and employee benefits	170,822	124,932	112,525
Travel expense	Travel expense	8,499	5,809	3,451
Professional services expense	Professional services expense	11,737	15,135	6,359
Advertising and marketing expense	Advertising and marketing expense	10,543	5,002	3,510
Occupancy expense	Occupancy expense	11,088	8,423	8,757
Technology expense	Technology expense	28,434	22,648	15,681
Equipment expense	Equipment expense	15,120	14,869	15,394
Other loan origination and maintenance expense	Other loan origination and maintenance expense	13,168	13,529	10,790
Renewable energy tax credit investment impairment	Renewable energy tax credit investment impairment	16,217	3,187	—
FDIC insurance	FDIC insurance	9,756	7,070	7,473

Contributions and donations	Contributions and donations	6,462	2,331	1,238
Other expense	Other expense	12,380	8,052	7,498
Total noninterest expense	Total noninterest expense	314,226	230,987	192,676
Income before taxes	Income before taxes	210,324	210,788	47,389
Income tax expense (benefit)	Income tax expense	34,116	43,793	(12,154)
Net income	Net income	\$ 176,208	\$ 166,995	\$ 59,543
Basic earnings per share	Basic earnings per share	\$ 4.02	\$ 3.87	\$ 1.46
Diluted earnings per share	Diluted earnings per share	\$ 3.92	\$ 3.71	\$ 1.43

See Notes to Consolidated Financial Statements

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

	Years Ended December 31,		
	2022	2021	2020
Net income	\$ 176,208	\$ 166,995	\$ 59,543
Other comprehensive (loss) income before tax:			
Net unrealized (loss) gain on investment securities available-for-sale during the period	(124,032)	(25,738)	14,752
Reclassification adjustment for gain on sale of securities available- for-sale included in net income	—	—	(1,880)
Other comprehensive (loss) income before tax	(124,032)	(25,738)	12,872
Income tax benefit (expense)	29,768	6,177	(3,089)
Other comprehensive (loss) income, net of tax	(94,264)	(19,561)	9,783
Total comprehensive income	\$ 81,944	\$ 147,434	\$ 69,326

	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	\$ 81,497	\$ 81,944	\$ 147,434

See Notes to Consolidated Financial Statements

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Live Oak Bancshares, Inc.

Consolidated Statements of Changes in Shareholders' Equity

(Dollars in thousands, except per share data)

	Common stock			Accumulated				Total	
	Shares			Retained earnings	Accumulated other comprehensive income (loss)	other	comprehensive income (loss)		
	Class A	Class B	Amount			comprehensive	income (loss)		
Balance at December 31, 2019	37,401,443	2,915,531	\$340,397	Retained	other	comprehensive	income (loss)	equity	
Net income	—	—	—	earnings	income (loss)	other	comprehensive	equity	
Other comprehensive income	—	—	—	—	—	9,783	9,783	9,783	
Issuance of restricted stock	1,510,066	—	—	—	—	—	—	—	
Tax withholding related to vesting of restricted stock and other	—	—	(49,229)	—	—	—	(49,229)	(49,229)	
Employee stock purchase program	39,253	—	520	—	—	—	—	520	
Non-voting common stock converted to voting common stock in private sale	1,807,774	(1,807,774)	—	—	—	—	—	—	
Cumulative effect of accounting change for Accounting Standards	—	—	—	822	—	—	822	822	
Update 2016-13	—	—	—	822	—	—	822	822	
Stock option exercises	496,226	—	3,069	—	—	—	3,069	3,069	
Stock option based compensation expense	—	—	1,594	—	—	—	1,594	1,594	
Restricted stock expense	—	—	13,146	—	—	—	13,146	13,146	
Issuance of common stock in connection with acquisition of wholly-owned subsidiary	89,927	—	1,122	—	—	—	1,122	1,122	
Cash dividends (\$0.12 per share)	—	—	—	(4,906)	—	—	(4,906)	(4,906)	
Common stock									
Shares									
Class A									
Class A									
Class A									
Balance at December 31, 2020	41,344,689	1,107,757	\$310,619	\$235,724	\$ 21,507	\$567,850			
Net income	Net income	—	—	—	166,995	—	166,995	166,995	
Other comprehensive loss	Other comprehensive loss	—	—	—	—	(19,561)	(19,561)	(19,561)	
Issuance of restricted stock	Issuance of restricted stock	453,127	—	—	—	—	—	—	
Tax withholding related to vesting of restricted stock and other	Tax withholding related to vesting of restricted stock and other	—	—	(19,151)	—	—	(19,151)	(19,151)	
Employee stock purchase program	Employee stock purchase program	13,674	—	670	—	—	670	670	

Non-voting common stock converted to voting common stock in private sale	Non-voting common stock converted to voting common stock in private sale	982,733	(982,733)	—	—	—	—
Stock option exercises	Stock option exercises	709,823	—	4,158	—	—	4,158
Stock option based compensation expense	Stock option based compensation expense	—	—	1,379	—	—	1,379
Restricted stock expense	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	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	Repurchase and retirement of shares securing a note receivable	(10,000)	—	(953)	—	—	(953)
Cash dividends (\$0.12 per share)	Cash dividends (\$0.12 per share)	—	—	(5,186)	—	—	(5,186)
Balance at	Balance at						
December 31, 2021	December 31, 2021	43,494,046	125,024	\$312,294	\$400,893	\$ 1,946	\$715,133
Net income	Net income	—	—	—	176,208	—	176,208
Other comprehensive loss	Other comprehensive loss	—	—	—	—	(94,264)	(94,264)
Issuance of restricted stock	Issuance of restricted stock	211,235	—	—	—	—	—
Tax withholding related to vesting of restricted stock and other	Tax withholding related to vesting of restricted stock and other	—	—	(4,972)	—	—	(4,972)
Employee stock purchase program	Employee stock purchase program	29,383	—	1,067	—	—	1,067
Non-voting common stock converted to voting common stock in private sale	Non-voting common stock converted to voting common stock in private sale	125,024	(125,024)	—	—	—	—
Stock option exercises	Stock option exercises	201,556	—	2,118	—	—	2,118

Stock option based compensation expense	Stock option based compensation expense	—	—	942	—	—	942
Restricted stock expense	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	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)	Cash dividends (\$0.12 per share)	—	—	(5,266)	—	—	(5,266)
Balance at	Balance at						
December 31, 2022	December 31, 2022	44,061,244	— \$330,854	\$572,497	\$ (92,318)	\$811,033	
Net income							
Other comprehensive income							
Issuance of restricted stock							
Tax withholding related to vesting of restricted stock and other							
Employee stock purchase program							
Stock option exercises							
Stock option exercises							
Stock option exercises							
Stock option based compensation expense							
Restricted stock expense							
Adoption of ASU 2022-02							
Transfer from retained earnings to other assets for pro rata portion of equity method investee stock compensation expense							
Cash dividends (\$0.12 per share)							

Balance at

December 31, 2023

See Notes to Consolidated Financial Statements

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Live Oak Bancshares, Inc.

Consolidated Statements of Cash Flows

(Dollars in thousands)

		Years Ended December 31,					
		2022	2021	2020			
		Years Ended December 31,			Years Ended December 31,		
		2023			2023		
Cash flows from operating activities	Cash flows from operating activities						
Net income	Net income	\$ 176,208	\$ 166,995	\$ 59,543			
Adjustments to reconcile net income to net cash provided (used) by operating activities:	Adjustments to reconcile net income to net cash provided (used) by operating activities:						
Depreciation and amortization	Depreciation and amortization	20,779	21,366	21,688			
Depreciation and amortization	Depreciation and amortization						
Provision for loan and lease credit losses	Provision for loan and lease credit losses	40,943	15,210	40,658			
Amortization of premium on securities, net of accretion	Amortization of premium on securities, net of accretion	3,420	6,461	3,359			
Deferred tax expense (benefit)	Deferred tax expense (benefit)	27,129	24,808	(17,447)			
Deferred tax expense (benefit)	Deferred tax expense (benefit)						
Originations of loans held for sale	Originations of loans held for sale	(1,042,061)	(1,364,168)	(1,183,152)			
Proceeds from sales of loans held for sale	Proceeds from sales of loans held for sale	1,067,758	1,092,222	875,393			
Net gains on sale of loans held for sale	Net gains on sale of loans held for sale	(43,244)	(67,280)	(49,473)			
Net (gain) loss on sale of foreclosed assets	Net (gain) loss on sale of foreclosed assets	(24)	(779)	12			
Net (gain) loss on loans accounted for under fair value option	Net (gain) loss on loans accounted for under fair value option	(1,046)	(4,257)	13,083			
Net decrease in servicing assets	Net decrease in servicing assets	7,251	344	1,447			
Gain on sale of investment securities available-for-sale, net	Gain on sale of investment securities available-for-sale, net	—	—	(1,880)			

Net (gain) loss on sale or disposal of long lived asset	—	(114)	6	
Net loss (gain) on impairment and sale of foreclosed assets				
Net loss (gain) on loans accounted for under fair value option				
Net change in servicing assets				
Net gain on sale or disposal of long lived asset				
Net gain on sale or disposal of long lived asset				
Net gain on sale or disposal of long lived asset				
Net loss (gain) on disposal of premises and equipment	Net loss (gain) on disposal of premises and equipment	31	(48)	38
Impairment on premises and equipment, net	Impairment on premises and equipment, net	—	904	1,263
Equity method investments (income) loss	(144,250)	1,716	14,691	
Equity security investments (gains) losses, net	(3,355)	(44,752)	(14,909)	
Equity method investments loss (income)				
Equity security investments losses (gains), net				
Renewable energy tax credit investment impairment	Renewable energy tax credit investment impairment	16,217	3,187	—
Stock option compensation expense	Stock option compensation expense	942	1,379	1,594
Restricted stock compensation expense	Restricted stock compensation expense	19,405	15,572	13,146
Stock based compensation excess tax benefit		531	9,340	22,043
Stock based compensation excess tax (deficiency) benefit				

Business combination contingent consideration fair value adjustment	Business combination contingent consideration fair value adjustment	(86)	99	163
Lease right-of-use assets and liabilities, net	Lease right-of-use assets and liabilities, net	232	(26)	42
Changes in assets and liabilities:	Changes in assets and liabilities:			Changes in assets and liabilities:
Other assets	Other assets	(15,889)	1,754	(64,323)
Other liabilities	Other liabilities	(6,406)	350	2,018
Net cash provided (used) by operating activities	Net cash provided (used) by operating activities	124,485	(119,717)	(260,997)
Cash flows from investing activities	Cash flows from investing activities			Cash flows from investing activities
Purchases of investment securities available-for-sale	Purchases of investment securities available-for-sale	(397,346)	(428,246)	(396,187)
Proceeds from sales, maturities, calls, and principal paydowns of investment securities available-for-sale	Proceeds from sales, maturities, calls, and principal paydowns of investment securities available-for-sale	161,227	240,093	197,527
Proceeds from SBA reimbursement/sale of foreclosed assets, net	Proceeds from SBA reimbursement/sale of foreclosed assets, net	1,837	6,786	5,282
Business combination, net of cash acquired		—	—	(895)
Maturities of certificates of deposit with other banks				
Maturities of certificates of deposit with other banks				
Maturities of certificates of deposit with other banks	Maturities of certificates of deposit with other banks	750	1,750	750
Loan and lease originations and principal collections, net	Loan and lease originations and principal collections, net	(1,268,871)	8,824	(2,414,016)
Proceeds from sale of long lived asset	Proceeds from sale of long lived asset	—	8,988	9,063
Purchases of equity security investments	Purchases of equity security investments	(9,283)	—	—
Purchases of equity method investments	Purchases of equity method investments	(35,955)	—	—

Proceeds from sale of equity security investments	Proceeds from sale of equity security investments	625	15,000	—
Proceeds from sale of equity method investments	Proceeds from sale of equity method investments	148,423	—	—
Proceeds from sale of premises and equipment	Proceeds from sale of premises and equipment	—	84	4
Purchases of premises and equipment, net	Purchases of premises and equipment, net	(43,751)	(3,082)	(20,989)
Net cash used by investing activities	Net cash used by investing activities	(1,442,344)	(149,803)	(2,619,461)

See Notes to Consolidated Financial Statements

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

		Years Ended December 31,		
		2022	2021	2020
		Years Ended December 31,		
		2023	2022	2021
Cash flows from financing activities	Cash flows from financing activities			
Net increase in deposits	Net increase in deposits			
Net increase in deposits	Net increase in deposits	\$1,772,884	\$1,399,216	\$1,485,848
Proceeds from borrowings	Proceeds from borrowings	62,096	602,848	1,828,033
Repayment of borrowings	Repayment of borrowings	(297,182)	(1,826,652)	(285,954)
Stock option exercises	Stock option exercises	2,118	4,158	3,069
Employee stock purchase program	Employee stock purchase program	1,067	670	520
Withholding cash issued in lieu of restricted stock and other	Withholding cash issued in lieu of restricted stock and other	(4,972)	(19,151)	(49,229)
Repurchase and retirement of shares	Repurchase and retirement of shares	—	(953)	—
Shareholder dividend distributions	Shareholder dividend distributions	(5,266)	(5,186)	(4,906)

Net cash provided by financing activities	Net cash provided by financing activities	1,530,745	154,950	2,977,381
Net increase (decrease) in cash and cash equivalents	Net increase (decrease) in cash and cash equivalents	212,886	(114,570)	96,923
Cash and cash equivalents, beginning	Cash and cash equivalents, beginning	203,750	318,320	221,397
Cash and cash equivalents, ending	Cash and cash equivalents, ending	\$ 416,636	\$ 203,750	\$ 318,320
Supplemental disclosure of cash flow information	Supplemental disclosure of cash flow information			
Supplemental disclosure of cash flow information	Supplemental disclosure of cash flow information			
Interest paid	Interest paid	\$ 117,516	\$ 66,844	\$ 91,801
Income tax paid, net	Income tax paid, net	24,708	19,722	11,486
Supplemental disclosures of noncash operating, investing, and financing activities	Supplemental disclosures of noncash operating, investing, and financing activities			
Unrealized holding (losses) gains on investment securities available-for-sale, net of taxes	Unrealized holding (losses) gains on investment securities available-for-sale, net of taxes	\$ (94,264)	\$ (19,561)	\$ 9,783
Supplemental disclosures of noncash operating, investing, and financing activities	Supplemental disclosures of noncash operating, investing, and financing activities			
Unrealized holding gains (losses) on investment securities available-for-sale, net of taxes	Unrealized holding gains (losses) on investment securities available-for-sale, net of taxes			
Unrealized holding gains (losses) on investment securities available-for-sale, net of taxes	Unrealized holding gains (losses) on investment securities available-for-sale, net of taxes			
Unrealized holding gains (losses) on investment securities available-for-sale, net of taxes	Unrealized holding gains (losses) on investment securities available-for-sale, net of taxes			

Transfers from loans and leases to foreclosed real estate and other repossessions or SBA receivable	Transfers from loans and leases to foreclosed real estate and other repossessions or SBA receivable	18,496	13,346	16,091
Net transfers between foreclosed real estate and SBA receivable	Net transfers between foreclosed real estate and SBA receivable	(15)	(1,643)	252
Transfer aircraft from premises and equipment, net to held for sale assets	Transfer aircraft from premises and equipment, net to held for sale assets	—	—	17,943
Transfer of loans held for sale to loans and leases held for investment	Transfer of loans held for sale to loans and leases held for investment	930,612	638,696	295,981
Transfer of loans and leases held for investment to loans held for sale	Transfer of loans and leases held for investment to loans held for sale	468,042	338,873	97,341
Transfer from retained earnings to other assets for pro rata portion of equity method investee stock compensation expense	Transfer from retained earnings to other assets for pro rata portion of equity method investee stock compensation expense	662	3,360	—
Equity method investment commitments	Equity method investment commitments	17,022	—	2,940
Equity security investment commitments	Equity security investment commitments	394	2,245	—
Business combination:				
Assets acquired (excluding goodwill)	—	—	2,523	
Liabilities assumed	—	—	2,074	
Goodwill recorded	—	—	1,797	
Change related to accounting change for ASU 2022-02				

See Notes to Consolidated Financial Statements

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Note 1. Organization and Summary of Significant Accounting Policies

Organization

Live Oak 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. The Bank identifies and extends lending to credit-worthy borrowers both within specific industries, also called verticals, through expertise within those industries, and more broadly to select borrowers outside of those industries. A significant portion of the loans originated by the Bank are 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 an with on-site restaurant location, 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. See Business Combination discussion below for more information on the acquisition of JAM in 2020. TLH was formed in the third quarter of 2022 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.

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) ("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.

On April 1, 2020, the Company acquired 100% of the equity interests of JAM, a registered investment advisor based in Rocky Mount, North Carolina. Goodwill, intangible assets and contingent consideration of \$1.8 million, \$2.3 million and \$2.1 million, respectively, were recorded by the Company as a result of this transaction. Intangible assets are almost entirely comprised of customer relationships that are being amortized using the straight-line method over 15 years. As a result of this acquisition, the Bank's wholly owned subsidiary Live Oak Private Wealth, broadened service offerings to existing high-net-worth individuals and families, attracted new clients from an expanded footprint and benefited from economies of scale. The acquisition did not materially impact the Company's financial position, results of operations or cash flows. Given the impact of the above acquisition was immaterial to the Company and its results of operations, additional disclosures have not been included.

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 16, 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, 2022 December 31, 2023 and 2021.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

2022.

Certificates of Deposit with other Banks

Certificates The certificate of deposit with other banks have maturities ranging from September 2023 through has a maturity of December 2023 2024 and bear bears interest at rates ranging from 0.20% to 3.55% 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 **typically** 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 **allowance for credit losses ("ACL")** **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. **Earnings impacts are reflected in the equity method investments income (loss) and equity security investments gains (losses), net line items on the consolidated statements of income.** The Company generally accounts for 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% **for interest in limited partnerships or limited liability companies in certain circumstances, or circumstances where there is companies.** Qualitatively, significant influence can exist through the ability to **exercise significant influence over** 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.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

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 **such an equity security is may be impaired**, the Company considers various indicators of impairment, including, **(1) the length of time and the extent but not limited to which the fair value has been less than cost, (2) (1) the financial condition and near-term prospects of the issuer, (2) adverse market conditions and (3) the intent and ability of the Company bona-fide offers to retain its investment purchase an equity interest in the issuer for a period of time sufficient to allow for any anticipated recovery in fair value. 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 \$3.9 million at December 31, 2022 and 2021, respectively.

Loans and Leases

Fair Value Option

Prior to 2021, management evaluated elected to account for the retained participating interests in government guaranteed loans for under the fair value option election. 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 will be subsequently be accrued 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 as such 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.

The credit loss adjustment is estimated

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 for each loan which methodology. The estimate incorporates measurements of (i) probability of default ("PD"), which is the likelihood a loan or lease will stop performing, (ii) loss given default ("LGD"), which is the expected loss rate for loans or leases in default, (iii) prepayments, (iv) the estimated outstanding exposure at default ("EAD"), and (v) the effective interest rate ("EIR"). PD rates are calculated using the number of defaults divided by the number of loans available assumptions that market participants would use 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. Market liquidity and economic condition adjustments are estimated using the sale prices estimate fair value of similar loans based on rate, term, assets such as prepayment speeds, default and asset size, 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.

Live Oak Bancshares, Inc.

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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 determined on a loan-by-loan basis. 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, and any fair value fluctuations in associated exchange-traded interest rate futures contracts. 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, 2022 December 31, 2023 and 2021: 2022:

2022	2021	2023	2022
------	------	------	------

Balance at beginning of year	Balance at beginning of year		
		\$1,116,519	\$1,175,470
Originations	Originations	1,042,061	1,364,168
Proceeds from sale	Proceeds from sale	(1,067,758)	(1,092,222)
Gain on sale of loans	Gain on sale of loans	43,244	67,280
Principal collections, net of deferred fees and costs	Principal collections, net of deferred fees and costs	(116,886)	(98,354)
Non-cash transfers, net	Non-cash transfers, net	(462,570)	(299,823)
Balance at end of period	Balance at end of period	<u>\$ 554,610</u>	<u>\$1,116,519</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.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

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

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.

Troubled Debt Restructurings

A loan or lease is accounted for as a troubled debt restructuring ("TDR") if the Company, for reasons related to the borrower's financial difficulties, restructures a loan or lease, and grants a concession to the borrower that it would not otherwise grant. A TDR typically involves a 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.

Allowance for Credit Losses

The Company adopted ASC 326, *Measurement of Credit Losses on Financial Instruments* ("ASC 326") on January 1, 2020. Upon adoption, the Company recorded a net increase to retained earnings of \$822 thousand, comprised of a \$1.3 million decrease in the allowance for credit losses combined with a \$499 thousand increase in reserve on unfunded

commitments.

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 **loss given default** **LGD** and **probability of default** **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 **EAD**, **exposure at default** ("EAD"), and the **EIR**, **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.

Live Oak Bancshares, Inc.
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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.

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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.
- **Any Prior to January 1, 2023, any loan or lease that was restructured with an interest rate concession and now meets met the definition of a TDR, 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 **TDR** **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 **effective interest rate** **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 **\$739 thousand** at December 31, 2022 and 2021, respectively, and is recorded in other expense in the consolidated statements of income and other liabilities in the consolidated balance sheets.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Equipment Leasing

The Company **purchases** **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 **current** **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 **year** **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 for during the **years** **year** ended December 31, 2022 and 2020.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

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 40.25 basis points. The fair value of the servicing asset is measured at the discounted present value of the excess servicing spread over the expected life of the related loan using appropriate discount rates and assumptions based on industry statistics for prepayment speeds.

Servicing assets are recognized as separate assets when rights are acquired through purchase or through sale of financial assets and are carried measured at fair value. Generally, purchased servicing rights are capitalized at the cost to acquire the rights. For sales of loans, value when a portion of the cost of originating the loan is allocated to the servicing right based on fair value. Fair value is based on market prices for comparable servicing contracts, when available, or alternatively, is based on a valuation model that calculates the present value of estimated future net servicing income. 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, an inflation rate, ancillary income, prepayment speeds and default rates and losses, with the prepayment speed and discount rate being one of the most sensitive assumptions. Capitalized 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.

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Notes to Consolidated Financial Statements

Derivative Financial Instruments

Interest Rate Futures Contracts

The Company may use exchange-traded interest rate futures contracts to manage interest rate risk that may impact expected gains arising from future secondary market loan sales. All derivative contracts were closed out in December 2020 and there was no further activity in subsequent periods. The Company had not designated any derivative as a hedging instrument under applicable accounting guidance. Changes in fair value of the derivative contracts is recorded as a component of net gains on sales of loans on the consolidated statements of income. The Company recognized a loss of \$2.6 million on the derivative contracts for the year ended December 31, 2020, respectively.

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.

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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.

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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 was the balances were \$1.9 million and \$421 thousand, respectively, while at December 31, 2021 respectively. Intangible assets are almost entirely comprised of customer relationships that are being amortized using the balances were \$2.0 million and \$268 thousand, respectively, all as a result of the JAM acquisition discussed earlier under Business Combinations, straight-line method over 15 years.

The Company had no impairment charges related to business combinations in 2023, 2022 2021 or 2020, 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 2020, 2023, the Company determined that 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 the this determination, to sell, the Company began marketing 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 \$19.2 million and after assessment of fair value, \$1.3 million of that balance

was recognized as impairment expense included in the other expense line item in the 2020 consolidated statement of income, \$30.2 million. Prior to December 31, 2020 December 31, 2023, one aircraft was sold for a minimal incremental loss \$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 \$8.9 \$16.0 million at December 31, 2020 December 31, 2023. In During 2021, the remaining an aircraft previously reclassified to held for sale aircraft was sold with for a gain of \$114 thousand.

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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. During 2021, 982,733 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 and \$10.4 million during 2022 and 2021, respectively.

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.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

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.

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Stock Compensation Plans

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

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Notes to Consolidated Financial Statements

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.

Add effect of dilutive stock options and restricted stock grants	Add effect of dilutive stock options and restricted stock grants		
1,044,019	1,901,369	1,093,754	
			741,171
			1,044,019
			1,901,369
Total weighted-average diluted shares outstanding	Total weighted-average diluted shares outstanding		
44,906,310	45,071,304	41,771,250	
			45,094,879
			44,906,310
			45,071,304
Diluted earnings per share	Diluted earnings per share		
\$ 3.92	\$ 3.71	\$ 1.43	
Anti-dilutive stock options and restricted shares	Anti-dilutive stock options and restricted shares		
1,413,738	37,401	2,179	
			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, 2022 December 31, 2023, 2021 2022 and 2020, 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 Bancshares, Inc. Notes to Consolidated Financial Statements

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

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

Loan and Lease Classes

During the fourth quarter of 2022, management made changes to loan and lease classes to align the presentation in the credit quality disclosures in Note 3. Loans and Leases Held for Investment and Credit Quality with the Company's method for monitoring and assessing credit risk. As a result, reclassified all Search Fund Lending loans and leases to customers that operate renewable energy projects, lodging facilities, and municipalities were reclassified from the Specialty Lending class into division to the Energy & Infrastructure class. 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. With the amendments, the ASU can be adopted by the Company as of March 12, 2020 through December 31, 2024. 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. For currently outstanding 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 the timing and manner in which each customer's contract transitions from LIBOR will transition to another rate will vary on a case-by-case basis. The Company expects to complete all transitions by the second quarter of 2023 or an alternative index at the their next repricing date if later in 2023. 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 amendments Company adopted the standard on January 1, 2023 using the modified retrospective method resulting in this standard will be effective for the Company on January 1, 2023. The Company does not believe this standard will have a material impact on its consolidated financial statements. 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 on 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:

					<u>December</u>	Amortized	Unrealized	Unrealized	Fair
					<u>31, 2023</u>	Cost	Gains	Losses	Value
U.S.	government	agencies							
Mortgage-	backed	securities							
Municipal	bonds								
Total									
Total									
Total									
<u>December</u>					<u>December</u>				
<u>31, 2022</u>	<u>December 31, 2022</u>				<u>31, 2022</u>				
US government agencies		Amortized	Unrealized	Unrealized	Fair				
		Cost	Gains	Losses	Value				
U.S.	government								
agencies									
Mortgage-	backed	securities							
Municipal	bonds								
Other debt	securities								
Total	Total	\$ 1,136,190	\$ 270	\$ 121,741	\$ 1,014,719				
<u>December 31, 2021</u>									
US government agencies		\$ 10,444	\$ 193	\$ —	\$ 10,637				
Mortgage-backed securities		887,302	14,246	12,209	889,339				
Municipal bonds		3,246	333	3	3,576				
Other debt securities		2,500	—	—	2,500				
Total		\$ 903,492	\$ 14,772	\$ 12,212	\$ 906,052				

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 paid out. Settled. During the year ended December 31, 2021, one security totaling \$5.0 million matured and twelve securities totaling \$33.1 million were paid out. During the year ended December 31, 2020, four securities totaling \$12.0 million matured and twenty securities totaling \$29.6 million were sold resulting in a net gain of \$1.9 million, which consisted of \$2.0 million gross realized gains and \$136 thousand gross realized losses. 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, 2022							
US government agencies		\$ 15,668	\$ 412	\$ —	\$ —	\$ 15,668	\$ 412
	Less Than 12 Months						
December 31, 2023							
U.S. government agencies							
Mortgage-backed securities	Mortgage-backed securities	513,639	29,060	456,972	92,023	970,611	121,083
Municipal bonds	Municipal bonds	2,884	241	93	5	2,977	246
Total	Total	\$532,191	\$29,713	\$457,065	\$92,028	\$989,256	\$121,741

		Less Than 12 Months		12 Months or More		Total	
		Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
December 31, 2021							
Mortgage-backed securities		\$ 479,322	\$ 8,503	\$ 110,633	\$ 3,706	\$ 589,955	\$ 12,209
Municipal bonds		—	—	96	3	96	3
Total		\$ 479,322	\$ 8,503	\$ 110,729	\$ 3,709	\$ 590,051	\$ 12,212

Management evaluates available-for-sale debt securities to determine whether the unrealized loss is due to credit-related factors or non-credit-related factors. The evaluation considers the extent to which the security's fair value is less than cost, the financial condition and near-term prospects of the issuer, and intent and ability of the Company to retain its investment in the security for a period of time sufficient to allow for any anticipated recovery in fair value.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

		Less Than 12 Months		12 Months or More		Total	
		Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
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, 2022 December 31, 2023, there were 185 409 mortgage-backed securities, five U.S. government agencies and one two municipal bond 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 US U.S. government agencies, and one municipal bond in unrealized loss positions for less than 12 months. Unrealized losses at December 31, 2021 consisted of 31 mortgage-backed securities and one municipal bond for greater than 12 months and 142 mortgage-backed securities 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 marketability of the securities or the issuer's ability to honor redemption obligations, and the Company has does not intend to sell the intent related securities and ability does not believe it is more likely than not that it will be required to hold these sell the securities for a sufficient period before recovery of time to recover unrealized losses, 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, 2022 December 31, 2023 and 2021 2022 were backed by U.S. government sponsored enterprises ("GSEs").

The following is a summary of investment securities by maturity:

		December 31, 2022		December 31, 2023	
		Available-for-sale		Available-for-sale	
		Amortized		Amortized Cost	Fair Value
US government agencies		Cost	Fair Value	Cost	Fair Value
U.S. government agencies	Within one year				
	Within one year				
	Within one year				
One to five years	One to five years	\$ 12,948	\$ 12,578		
Five to ten years	Five to ten years	3,132	3,090		
Total	Total	16,080	15,668		
Mortgage-backed securities	Mortgage-backed securities				
Within one year					
	Within one year				
	Within one year				
One to five years	One to five years	113,726	108,045		
Five to ten years	Five to ten years	254,975	225,028		
After 10 years	After 10 years	747,686	662,501		
Total	Total	1,116,387	995,574		
Municipal bonds	Municipal bonds				
Five to ten years					
	Five to ten years				
	Five to ten years				
After 10 years	After 10 years	3,223	2,977		
Total	Total	3,223	2,977		
Other debt securities					
Within one year		500	500		
Total	Total	500	500		
Total	Total	\$1,136,190	\$1,014,719		
Total					

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, 2022** **December 31, 2023** or **2021**.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

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, 2022** **December 31, 2023** and **2021** is reflected in the following table:

	2022		2021	
	Amount	Ownership %	Amount	Ownership %
Apiture, Inc.	\$ 60,320	40.3 %	\$ 52,323	39.1 %
Canapi Ventures SBIC Fund, LP ^{(1) (5)}	19,246	2.9 %	19,431	2.9 %
Canapi Ventures Fund, LP ^{(2) (5)}	2,382	1.5 %	2,402	1.5 %
Canapi Ventures Fund II, LP ^{(3) (5)}	7,412	1.6 %	—	N/A
Canapi Ventures SBIC Fund II, LP ^{(4) (5)}	7,981	3.7 %	—	N/A
Other fintech investments in private companies ⁽⁶⁾	241	4.3 %	5,330	Various
Other ⁽⁷⁾	12,476	Various	4,664	Various
Total	\$ 110,058		\$ 84,150	

	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) (8)}	2,267	1.5	2,382	1.5
Canapi Ventures Fund II, LP ^{(3) (5) (8)}	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	\$ 118,914		\$ 110,058	

(1) Includes unfunded commitments of **\$5.5 million** **\$5.0 million** and **\$6.8 million** **\$5.5 million** as of **December 31, 2022** **December 31, 2023** and **2021**, respectively.

(2) Includes unfunded commitments of **\$617** **\$559** thousand and **\$770** **\$617** thousand as of **December 31, 2022** **December 31, 2023** and **2021**, respectively.

(3) Includes unfunded commitments of **\$6.9** **\$6.3 million** and **\$6.9 million** as of **December 31, 2022**. There were no unfunded commitments as of **December 31, 2021**.

December
31, 2023
and 2022,
respectively.

(4) Includes unfunded commitments of **\$7.5** **\$7.1 million** and **\$7.5 million** as of **December 31, 2022**. There were no unfunded commitments as of **December 31, 2021**.

December
31, 2023
and 2022,
respectively.

(5) Investees are accounted for under equity method due to the Company's participation as an investment advisor. All Canapi Fund investments are unconsolidated VIEs. See Variable Interest Entities section below.

(6) As of December 31, 2022, Other Fintech investments include Kwipped, Inc. On August 31, 2022 As of December 31, 2023, the Company sold its investment in Payrailz, LLC, resulting in a pre-tax gain of \$28.4 million, and on April 1, 2022, has been moved to equity security as the Company sold its investment in Finxact, Inc. resulting in a pre-tax gain of \$120.8 million. As of December 31, 2021 Other Fintech investments include Finxact, Inc., Payrailz, LLC and Kwipped, Inc. Investees are accounted for under equity method due to the Company's ability to exercise significant influence through executive management's board involvement.

(7) As of December 31, 2022 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"), and 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 Impact Opportunity 1 LLC ("Cape Fear Collective 1") and Cape Fear Collective Impact Opportunity 2, LLC ("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 \$2.6 million was recorded as a liability for HEP. As of December 31, 2021, Other investments included Green Sun HEP, and Cape Fear Collective 1, each with limited member interests of 99.0%. There were no unfunded commitments as of December 31, 2021. All 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 investments are unconsolidated VIEs. See Variable Interest Entities section below. segment.

preferred
shares do
not qualify
as in-
substance
common
stock.

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, 2022 December 31, 2023 and for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021 is reflected in the following table:

	Cumulative Adjustments	2022	2021	2020	Cumulative Adjustments	2023	2022	2021
Carrying value	Carrying value (1)	\$ 76,438	\$ 63,321	\$ 31,146				
Carrying value	Carrying value							
adjustments:	adjustments:				Carrying value adjustments:			
Impairment	Impairment	\$ —	—	—				
Upward changes for observable prices (2)	Upward changes for observable prices (2)	50,492	2,022	30,197	14,558			
Downward changes for observable prices	Downward changes for observable prices	(86)	—	—	—			
Net upward change		\$ 50,406	\$ 2,022	\$ 30,197	\$ 14,558			

Net upward
(downward)
change

(1) Includes \$3.0 million \$2.3 million, \$2.8 million \$3.0 million and \$522 thousand \$2.8 million in unfunded commitments for the years ended December 31, 2022 December 31, 2023, 2022 and 2021, and 2020, 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, 2022 December 31, 2023, 2021 2022 and 2020 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, and \$14.6 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 limited interest 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. These fund investments are accounted for under the equity method due to the Company's participation as an investment advisor.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Non-marketable and Other Equity Investments

The Company also has limited interest 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. Additionally, the Company has a limited interest 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.

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 on the consolidated balance sheets 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, 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 losses loss from this investment 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, 2022 December 31, 2023 and 2021 2022:

Maximum Carrying Exposure Liability											
December 31, 2022		Amount	to Loss	Recognized	Classification	December 31, 2023		Carrying Amount	Exposure to Loss	Liability Recognized	Classification
Solar tax credit investments	Solar tax credit investments	\$ 5,221	\$ 24,295	\$ 2,641	Other assets & other liabilities ⁽¹⁾	Solar tax credit investments	\$ 6,714	\$ 38,228	\$ —	Other assets ⁽¹⁾	Other assets ⁽¹⁾
Affordable housing	Affordable housing						15,611	15,611	7,715		Other assets & other liabilities ⁽²⁾
Canapi Funds	Canapi Funds	37,021	37,021	20,474	Other assets & other liabilities	Canapi Funds	35,300	35,300	35,300	18,930	Other assets & other liabilities
Non-marketable and other equity investments	Non-marketable and other equity investments	15,764	15,764	3,033	Other assets & other liabilities	Non-marketable and other equity investments	8,840	8,840	8,840	2,321	Other assets & other liabilities
Maximum Carrying Exposure Liability											
December 31, 2021		Amount	to Loss	Recognized	Classification	December 31, 2022		Carrying Amount	Exposure to Loss	Liability Recognized	Classification
Solar tax credit investments	Solar tax credit investments	\$ 708	\$ 4,100	\$ — ⁽²⁾	Other assets	Solar tax credit investments	\$ 5,221	\$ 24,295	\$ 2,641	Other assets & other liabilities ⁽³⁾	Other assets & other liabilities ⁽³⁾
Affordable housing	Affordable housing						7,255	7,255	—		Other assets
Canapi Funds	Canapi Funds	21,833	21,833	7,608	Other assets & other liabilities	Canapi Funds	37,021	37,021	37,021	20,474	Other assets & other liabilities
Non-marketable and other equity investments	Non-marketable and other equity investments	13,225	13,225	2,758	Other assets & other liabilities	Non-marketable and other equity investments	8,509	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.

(1)(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 \$24.3 million in related tax credits are recaptured.

(2) Maximum exposure to loss represents \$708 thousand of current investments and a scenario in which \$4.1 million in related tax credits are recaptured, collectively totaling \$19.1 million.

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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.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Past Due Loans and Leases

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

		Loans Accounted for Under the Fair Value Option (1) and Leases													
		30-89 Days or More		Total Past Due		Carried at Cost		Amortized Value		Total Loans and Leases					
<u>December 31, 2022</u>		Current	Past Due	Past Due	Total	Past Due	Cost	Amortized	Value	Total	Loans and Leases	December 31, 2023	Current or Less than 30 Days Past Due	30-89 Days Past Due	90 Days or More Past Due
December 31, 2023															
Commercial & Industrial	Commercial & Industrial														
Small Business Banking	Small Business Banking														
Small Business Banking	Small Business Banking	\$1,719,165	\$21,589	\$16,221	\$37,810	\$1,756,975	\$182,348	\$1,939,323		\$2,075,227	\$16,570	\$33,366	\$		
Specialty Lending	Specialty Lending	1,022,615	398	266	664	1,023,279	29,084	1,052,363		1,131,493					
Energy & Infrastructure	Energy & Infrastructure	420,447	—	3,082	3,082	423,529	50,094	473,623		842,907	2,806	4,044			
Paycheck Protection Program	Paycheck Protection Program	13,134	—	—	—	13,134	—	13,134		5,595					
Total	Total	3,175,361	21,987	19,569	41,556	3,216,917	261,526	3,478,443		4,055,222	19,376	37,410			
Construction & Development	Construction & Development														
Small Business Banking	Small Business Banking	471,243	1,500	—	1,500	472,743	—	472,743		413,349	1,745	—			
Small Business Banking	Small Business Banking														

Specialty Lending	Specialty Lending	104,069	—	—	—	104,069	—	104,069	Specialty Lending	47,419	—	—
Energy & Infrastructure	Energy & Infrastructure	13,753	—	—	—	13,753	—	13,753	Energy & Infrastructure	7,541	—	—
Total	Total	589,065	1,500	—	1,500	590,565	—	590,565	Total	468,309	1,745	—
Commercial Real Estate	Commercial Real Estate											
Small Business Banking												
Small Business Banking												
Small Business Banking	Small Business Banking	2,137,028	12,082	5,771	17,853	2,154,881	166,595	2,321,476		2,414,677	18,589	32,310
Specialty Lending	Specialty Lending	319,419	—	—	—	319,419	2,050	321,469	Specialty Lending	511,712	—	12,
Energy & Infrastructure	Energy & Infrastructure	136,706	—	3,072	3,072	139,778	22,123	161,901	Energy & Infrastructure	158,613	—	3,
Total	Total	2,593,153	12,082	8,843	20,925	2,614,078	190,768	2,804,846	Total	3,085,002	18,589	47,414
Commercial Land	Commercial Land											
Small Business Banking												
Small Business Banking												
Total	Total	429,014	1,663	1,917	3,580	432,594	42,164	474,758	Total	531,331	1,521	1,910
Total	Total	\$6,786,593	\$37,232	\$30,329	\$67,561	\$6,854,154	\$494,458	\$7,348,612	Total	\$ 8,139,864	\$ 41,231	\$ 86,734
Net deferred fees												
Retained Loan									Retained Loan			
Discount and									Discount and			
Net Deferred Costs									Net Deferred Costs			
Loan and Leases, Net	Loan and Leases, Net								Loan and Leases, Net			
Guaranteed Balance	Guaranteed Balance	\$2,657,770	\$20,199	\$26,026	\$46,225	\$2,703,995	\$ 67,268	\$2,771,263				
Guaranteed Balance	Guaranteed Balance									\$ 2,877,105	\$ 29,183	\$ 61,107
% Guaranteed	% Guaranteed	39.2%	54.3%	85.8%	68.4%	39.5%	13.6%	37.7%	% Guaranteed	35.3%	70.8%	70.5%

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

December 31, 2021	Current	December 31, 2022	Commercial & Industrial	Current or Less than 30 Days Past Due	30-89 Days Past Due	90 Days or More Past Due
			Small Business Banking	\$ 1,103,915	\$ 1,987,508	\$ 7,320
			Specialty Lending	642,444	754,272	—
			Energy & Infrastructure	232,923	420,447	—
			Paycheck Protection Program	266,893	13,134	68
			Total	2,246,175	3,175,361	13,239
			Construction & Development		21,987	8,734

Small Business Banking	275,786	471,243	1,500
Specialty Lending	40,805	104,069	—
Energy & Infrastructure	41,209	13,753	—
Total	357,800	589,065	1,500
Commercial Real Estate			
Small Business Banking	1,577,765	2,149,662	5,802 12,082
Specialty Lending	153,716	306,785	—
Energy & Infrastructure	131,657	136,706	—
Total	1,863,138	2,593,153	5,802 12,082
Commercial Land			
Small Business Banking	362,881	429,014	7,399 1,663
Total	362,881	429,014	7,399 1,663
Total	\$ 4,829,994	6,786,593	\$ 26,440 37,232
Retained Loan Discount and Net deferred fees Deferred Costs			
Loan and Leases, Net			
Guaranteed Balance	\$ 2,037,509	2,657,770	\$ 18,421 20,199
% Guaranteed	42.2	39.2%	% 54.3%
			\$ 16,440
			69.7%

(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 - Credit Risk*.

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 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.

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 risk is assigned based on 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 no significant identifiable risk of collection.

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 low risk of loss on the 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. 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 debt.

Acceptable (4 Rated): These loans and leases show signs of weakness in either adequate sources of repayment or collateral but have demonstrated mitigating factors. 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 of repayment.

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 have significant weaknesses that could result in 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 assets. 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 debt is severely impaired. The 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 clearly defined, the debt is considered uncollectible.

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 is based on the fact that the debt is irrecoverable in the near future.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

The following tables present credit quality indicators by portfolio class:

Term Loans and Leases Amortized Cost Basis by Origination Year										
December 31, 2022							Revolving	Revolving		
							Loans	Loans		
							Amortized	Converted		
December 31, 2022	2022	2021	2020	2019	2018	Prior	Cost Basis	to Term	Total(a)	
Term Loans and Leases Amortized Cost Basis by Origination Year										
December 31, 2023										
December 31, 2023										
December 31, 2023									2023	2022
Small Business Banking										2021
Risk Grades 1 - 4										
Risk Grades 1 - 4										
Risk	Risk									
Grades 1	Grades 1									
- 4	- 4	\$1,427,182	\$1,400,726	\$795,647	\$426,401	\$217,893	\$204,933	\$65,455	\$1,738	\$4,539,975
Risk	Risk									
Grade 5	Grade 5	15,942	17,745	40,202	45,712	26,124	27,212	13,210	204	186,351
Risk	Risk									
Grades 6	Grades 6									
- 8	- 8	1,806	4,277	17,845	23,470	14,094	27,215	1,638	522	90,867
Total	Total	1,444,930	1,422,748	853,694	495,583	258,111	259,360	80,303	2,464	4,817,193
Specialty Lending	Specialty Lending									
Risk	Risk									
Grades 1	Grades 1									
- 4	- 4	635,079	355,785	144,545	25,849	6,574	788	153,062	31,504	1,353,186
Risk Grades 1 - 4										
Risk Grades 1 - 4										
Risk	Risk									
Grade 5	Grade 5	7,341	33,272	12,329	10,201	4,399	—	6,619	248	74,409
Risk	Risk									
Grades 6	Grades 6									
- 8	- 8	—	11,433	416	5,577	166	—	1,343	237	19,172
Total	Total	642,420	400,490	157,290	41,627	11,139	788	161,024	31,989	1,446,767
Energy & Infrastructure	Energy & Infrastructure									
Risk Grades 1 - 4										
Risk Grades 1 - 4										
Risk	Risk									
Grades 1	Grades 1									
- 4	- 4	199,338	176,855	39,600	51,190	23,374	19,694	12,751	351	523,153
Risk	Risk									
Grade 5	Grade 5	4,024	4,409	500	6,976	4,706	5,142	—	—	25,757
Risk	Risk									
Grades 6	Grades 6									
- 8	- 8	—	3,082	16,589	—	8,479	—	—	—	28,150
Total	Total	203,362	184,346	56,689	58,166	36,559	24,836	12,751	351	577,060

Paycheck	Paycheck
Protection	Protection
Program	Program
Risk	Risk
Grades 1	Grades 1
- 4	- 4
	—
7,421	5,713
	—
—	—
—	—
—	—
13,134	
Risk Grades 1 - 4	
Risk Grades 1 - 4	
Total	Total
—	—
7,421	5,713
—	—
—	—
—	—
13,134	
Total	Total
\$2,290,712	\$2,015,005
\$1,073,386	\$595,376
\$305,809	\$284,984
\$254,078	\$34,804
\$6,854,154	

Year-To-Date

Gross Charge-offs

Year-To-Date

Gross Charge-offs

Year-To-Date

Gross Charge-offs

Small Business Banking

Small Business Banking

Small Business Banking

Specialty

Lending

Total

Total

Total

Term Loans and I

December 31, 2021

Small Business Banking

	2021	2020	2019
Risk Grades 1 - 4	\$ 1,051,775	\$ 853,250	\$
Risk Grade 5	7,838	19,651	
Risk Grades 6 - 8	2,517	8,667	
Total	1,062,130	881,568	

Specialty Lending

	2021	2020	2019
Risk Grades 1 - 4	467,751	168,067	
Risk Grade 5	2,250	729	
Risk Grades 6 - 8	—	17	
Total	470,001	168,813	

Energy & Infrastructure

	2021	2020	2019
Risk Grades 1 - 4	177,100	70,343	
Risk Grade 5	—	16,947	
Risk Grades 6 - 8	—	—	
Total	177,100	87,290	

Paycheck Protection Program

	2021	2020	2019
Risk Grades 1 - 4	204,803	63,572	
Total	204,803	63,572	
Total	\$ 1,914,034	\$ 1,201,243	\$

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

				Term Loans and I
		2022	2021	2020
December 31, 2022				
Small Business Banking				
Risk Grades 1 - 4		\$ 1,499,309	\$ 1,490,346	\$
Risk Grade 5		15,942	22,295	
Risk Grades 6 - 8		1,806	8,777	
Total		1,517,057	1,521,418	
Specialty Lending				
Risk Grades 1 - 4		562,952	266,165	
Risk Grade 5		7,341	28,722	
Risk Grades 6 - 8		—	6,933	
Total		570,293	301,820	
Energy & Infrastructure				
Risk Grades 1 - 4		199,338	176,855	
Risk Grade 5		4,024	4,409	
Risk Grades 6 - 8		—	3,082	
Total		203,362	184,346	
Paycheck Protection Program				
Risk Grades 1 - 4		—	7,421	
Total		—	7,421	
Total		<u>\$ 2,290,712</u>	<u>\$ 2,015,005</u>	<u>\$</u>

(1) Excludes \$494.5 million \$388.0 million and \$645.2 million \$494.5 million of loans accounted for under the fair value option as of December 31, 2022.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

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

Loan and					Loan and Lease Balance (1)
<u>December 31,</u>	Lease	Guaranteed	Unguaranteed	%	
<u>2022</u>	Balance(1)	Balance	Balance	Guaranteed	
December					
31, 2023					Loan and Lease Balance (1)
Risk Grades 1 - 4					\$
- 4	1 - 4	\$ 6,429,448	\$ 2,508,229	\$ 3,921,219	39.0 % Risk Grades 1 - 4
Risk Grade 5					40.3
Grade 5	5	286,517	115,573	170,944	
Risk Grades 6 - 8					58.0
- 8	6 - 8	138,189	80,193	57,996	
Total	Total	<u>\$ 6,854,154</u>	<u>\$ 2,703,995</u>	<u>\$ 4,150,159</u>	<u>39.5 % Total</u>
Loan and					
<u>December 31,</u>	Lease	Guaranteed	Unguaranteed	%	
<u>2021</u>	Balance(1)	Balance	Balance	Guaranteed	
December					
31, 2022					Loan and Lease Balance (1)

(1) Excludes \$494.5 million \$388.0 million and \$645.2 million \$494.5 million of loans accounted for under the fair value option as of December 31, 2022.

Nonaccrual Loans and Leases

As of December 31, 2022 December 31, 2023 and December 31, 2021 December 31, 2022 there were no loans greater than 90 days past due and still accruing, 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 \$31.0

Nonaccrual loans and leases as of December 31, 2022 December 31, 2023 and December 31, 2021 December 31, 2022 are as follows:

Small	Small				
Business	Business				
Banking	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					
Small	Small				
Business	Business				
Banking	Banking	6,750	5,499	1,251	196
Total	Total	6,750	5,499	1,251	196
Total	Total	\$ 73,392	\$ 54,608	\$ 18,784	\$ 4,502

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

		Loan and		Unguaranteed		
		Lease	Guaranteed	Unguaranteed	Exposure	
		Balance (1)	Balance	Balance	with No ACL	
<u>December 31, 2021</u>						
<u>December 31,</u>						
<u>2022</u>						
						Loan and Lease
						Balance (1)
Commercial & Commercial &						
Industrial	Industrial					
Small	Small					
Business	Business					
Banking	Banking	\$ 16,911	\$ 13,981	\$ 2,930	\$ —	
Payroll Protection Program		1,482	1,482	—	—	
Total		18,393	15,463	2,930	—	
Construction & Development						
Small	Small					
Business	Business					
Banking	Banking	3,884	1,201	2,683	—	
Small Business Banking						
Energy & Infrastructure						
Energy & Infrastructure						
Energy & Infrastructure						
Total	Total	3,884	1,201	2,683	—	
Commercial	Commercial					
Real Estate	Real Estate					
Small Business Banking						
Small Business Banking						
Small	Small					
Business	Business					
Banking	Banking	12,410	5,226	7,184	5,169	
Energy &	Energy &					
Infrastructure	Infrastructure	2,315	507	1,808	1,808	
Total	Total	14,725	5,733	8,992	6,977	
Commercial	Commercial					
Land	Land					
Small	Small					
Business	Business					
Banking	Banking	5,531	4,148	1,383	—	
Small Business Banking						

Small Business Banking								
Total	Total	\$ 5,531	\$ 4,148	\$ 1,383	\$ —			
Total	Total	\$42,533	\$ 26,545	\$ 15,988	\$ 6,977			

(1) Excludes nonaccrual 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 acc

Commercial & Industrial

Commercial Real Estate

Commercial Land

Construction & Development

Total

The following tables present the amortized cost basis of collateral-dependent loans and leases which are individually evaluated to determine expected credit losses

Total Collateral Dependent								
Loans			Unguaranteed Portion					
			Allowance					
	Real Estate	Business Assets	Other	Real Estate	Business Assets	Other	for Credit Losses	
December 31, 2022								
Total Collateral-Dependent Loans								
December 31, 2023								
December 31, 2023								
Real Estate Business Assets								
Commercial & Industrial								
Commercial & Industrial								
Small Business Banking								
Small Business Banking								
Small Business Banking	Small Business Banking	\$ 2,730	\$ —	\$ 414	\$ —	\$ —	\$ —	
Specialty Lending	Specialty Lending	—	371	—	—	371	—	291
Energy & Infrastructure	Energy & Infrastructure	16,378	—	—	13,583	—	—	—
Total	Total	19,108	371	—	13,997	371	—	291
Commercial Real Estate	Commercial Real Estate							
Small Business Banking	Small Business Banking							
Total	Total	15,286	—	—	6,440	—	—	152
Commercial Land	Commercial Land							
Small Business Banking	Small Business Banking							
Total	Total	1,743	—	—	202	—	—	—

Total	Total	\$36,137	\$ 371	\$ —	\$20,639	\$ 371	\$ —	\$ 443
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Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Total Collateral Dependent								
Loans			Unguaranteed Portion					
			Allowance					
			Real Estate Business Other Real Estate Business Other for Credit					
December 31, 2021	Estate	Assets	Other	Estate	Assets	Other	Losses	
Total Collateral- Dependent Loans								
December 31, 2022								December 31, 2022
Commercial Commercial								Real Estate
& Industrial & Industrial								Business
Small Business Banking	Banking	\$ 698	\$ 7,475	\$ —	\$ 152	\$ 449	\$ —	\$ 235
Total		698	7,475	—	152	449	—	235
Construction & Development								
Specialty Lending		3,858	—	—	2,657	—	—	57
Small Business Banking								
Small Business Banking								
Energy & Infrastructure								
Energy & Infrastructure								
Energy & Infrastructure								
Total	Total	3,858	—	—	2,657	—	—	57
Commercial Commercial								
Real Estate	Real Estate							
Small Business Banking								
Small Business Banking								
Total	Total	5,684	700	64	4,044	14	13	65
Commercial Commercial								
Land	Land							
Small Business Banking								
Small Business Banking								
Total	Total	5,541	—	—	1,393	—	—	601
Total	Total	\$15,781	\$ 8,175	\$ 64	\$8,246	\$ 463	\$ 13	\$ 958

Allowance for Credit Losses – Loans and Leases

On January 1, 2020, the Company adopted ASC 326. The Company maintains the ACL at levels management believes represents the future expected credit loss losses under ASC 326. **Losses**.

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

		Construction						
		Commercial & Industrial	& Development	Commercial Real Estate	Commercial Land	Total		
		Commercial & Industrial						Commercial & Industrial
<u>December</u>								
<u>31, 2023</u>								
Beginning Balance								
Beginning Balance								
Beginning Balance								
Adoption of								
ASU 2022-02								
Charge offs								
Recoveries								
Provision								
Ending								
Balance								
<u>December</u>								
<u>31, 2022</u>								
Beginning Balance								
Beginning Balance								
Beginning	Beginning							
Balance	Balance	\$	37,770	\$ 3,435	\$ 19,068	\$ 3,311	\$ 63,584	
Charge offs	Charge offs		(8,262)	—	(1,463)	(652)	(10,377)	
Recoveries	Recoveries		1,039	3	1,363	11	2,416	
Provision	Provision		34,448	1,663	3,933	899	40,943	
Ending	Ending							
Balance	Balance	\$	64,995	\$ 5,101	\$ 22,901	\$ 3,569	\$ 96,566	
<u>December</u>								
<u>31, 2021</u>								
Beginning								
Beginning	Beginning							
Balance	Balance	\$	26,941	\$ 5,663	\$ 18,148	\$ 1,554	\$ 52,306	
Beginning Balance								
Beginning Balance								
Charge offs	Charge offs		(2,912)	(262)	(2,731)	(12)	(5,917)	
Recoveries	Recoveries		172	—	1,813	—	1,985	
Provision	Provision		13,569	(1,966)	1,838	1,769	15,210	
Ending	Ending							
Balance	Balance	\$	37,770	\$ 3,435	\$ 19,068	\$ 3,311	\$ 63,584	
<u>December 31, 2020</u>								
Beginning Balance, prior								
to adoption of ASC 326	\$	15,757	\$ 2,732	\$ 8,427	\$ 1,318	\$ 28,234		
Impact of adopting ASC								
326		(4,561)	1,131	1,916	193	(1,321)		
Charge offs		(4,401)	—	(10,347)	(644)	(15,392)		
Recoveries		84	—	28	15	127		
Provision		20,062	1,800	18,124	672	40,658		
Ending Balance	\$	26,941	\$ 5,663	\$ 18,148	\$ 1,554	\$ 52,306		

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 unemployment followed by a twelve-month straight-line reversion period.

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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 environment.

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 provision expense was impacted by net charge-offs during the period.

During Loan Modifications for Borrowers Experiencing Financial Difficulty

The Company may agree to modify the year ended December 31, 2020 contractual terms of a loan to a borrower experiencing financial difficulty as a part of ongoing efforts to 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	
Small Business Banking		\$	10,090
Specialty Lending			—
Energy & Infrastructure			—
Total		\$	10,090

As of December 31, 2023, increases 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
Small Business Banking	\$	18
Specialty Lending		4
Energy & Infrastructure		13
Total	\$	37

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

		W
Small Business Banking		Inter
Specialty Lending		
Energy & Infrastructure		

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 became uncollectible.

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. Unrecoverable amount and the ACL were primarily adjusted by the same amount. As a result, the impact of loss mitigation strategies is captured in the estimates of the ACL.

Prior to January 1, 2023, a loan or lease was accounted for as a TDR if the Company, for reasons related to the severity of the borrower's financial difficulties, restructured the terms such as a result of the COVID-19 pandemic. Unemployment rates were forecasted interest rate below the current market rate for two charge-offs during the period. 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					
	Extend				
	Interest Only	Payment Deferral	Amortization	Other ⁽¹⁾	Total TDRs ⁽²⁾

		Recorded	Recorded	Recorded	Recorded	Recorded	Recorded
		Number of	investment	Number of	investment	Number of	investment
		of	at period	of	at period	of	at period
		Loans	end	Loans	end	Loans	end
Twelve months ended December 31, 2022							
		Interest Only					

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

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Notes to Consolidated Financial Statements

Twelve months ended December 31, 2021																
				Extend												
Interest Only		Payment Deferral		Amortization		Other ⁽¹⁾		Total TDRs ⁽²⁾								
Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded							
Number	investment	Number	investment	Number	investment	Number	investment	Number	investment							
of	at period	of	at period	of	at period	of	at period	of	at period							
Loans	end	Loans	end	Loans	end	Loans	end	Loans	end							
Twelve months ended December 31, 2021																
Interest Only						Interest Only										
Number of						Number of										
Loans						Loans		Recorded investment at period end								
Commercial								Loans								
Commercial																
& Industrial																
& Industrial																
Small Business Banking																
Small	Small															
Business	Business															
Banking	Banking	—	\$	—	3	\$	6,097	1	\$	496	—	\$	—	4	\$	6,593
Total	Total	—		—	3		6,097	1		496	—		—	4		6,593

Commercial Real Estate		Commercial Real Estate									
Small Business	Small Business										
Banking	Banking	—	—	5	6,613	—	—	1	3,124	6	9,737
Small Business	Banking										
Small Business	Banking										
Total	Total	—	—	5	6,613	—	—	1	3,124	6	9,737
Total	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.

		Interest Only		Payment Deferral	
		Number of Loans	Recorded investment at period end	Number of Loans	
				Recorded	Recon
Commercial & Industrial					
Small Business Banking		—	\$ —	—	6 \$ —
Specialty Lending		—	—	—	—
Total		—	—	—	6
Construction & Development					
Small Business Banking		—	—	—	—
Total		—	—	—	—
Commercial Real Estate					
Small Business Banking		—	—	—	2
Energy & Infrastructure		—	—	—	1
Total		—	—	—	3
Commercial Land					
Small Business Banking		—	—	—	—
Total		—	—	—	—
Total		—	\$ —	—	9 \$ —

(1) Includes one small business banking interest only and rate concession TDR (\$170 thousand), and two energy & infrastructure interest only and rate concession TDRs (\$100 thousand).

(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

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.

Twelve Months Ended December 31, 2022											
Extend											
Interest Only		Payment Deferral		Amortization		Other		Total TDRs ⁽¹⁾			
Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded	Recorded
investment	Number	investment	Number	investment	Number	investment	Number	investment	Number	investment	Number
Number of	at period	of	at period	of	at period	of	at period	of	at period	of	at period
Loans	end	Loans	end	Loans	end	Loans	end	Loans	end	Loans	end

Twelve months ended December 31, 2022

Interest Only		Interest Only	
---------------	--	---------------	--

(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 2021. No TDRs were modified within the twelve months ended December 31, 2020 subsequently defaulted during the twelve months ended December 31, 2020.

Note 4. Leases

Lessor Equipment Leasing

The Company purchases may purchase new equipment for the purpose of leasing such equipment to customers within its verticals. Equipment purchased to fulfil Accordingly, leased assets under operating leases are included in premises and equipment while leased assets under direct financing leases are included in loans .

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Direct Financing Leases

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

		As of December 31,	
		2023	2023
		As of December	
		31,	
		2022	2021
Gross	direct	direct	
direct	lease	lease	
lease	payments	payments	
payments	receivable	receivable	
receivable		\$4,284	\$7,333
Less -	Less -		
unearned	unearned		
interest	interest	<u>(479)</u>	<u>(998)</u>
Net	Net		
investment	investment		
in direct	in direct		
financing	financing		
leases	leases	<u>\$3,805</u>	<u>\$6,335</u>

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

<u>As of December 31,</u>	
<u>2022</u>	<u>Amount</u>
2023	\$1,803
<u>As of December</u>	
<u>31, 2023</u>	<u>As of December 31, 2023</u>
2024	2024 1,374
2025	2025 990
2026	2026 117
Total	Total <u>\$4,284</u>
Total	
Total	

Interest income of \$253 thousand, \$393 thousand \$669 thousand and \$838 \$669 thousand was recognized in the twelve months ended December 31, 2022 December 31, 2023 December 31, 2024 and December 31, 2025, respectively.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Operating Leases

As of December 31, 2022 2023 and 2021 2022, the Company had a net investment of \$114.2 million \$104.0 million and \$123.9 million \$114.2 million, respectively, in \$163.4 million as of December 31, 2022 2023 and 2021 2022, respectively, and accumulated depreciation was \$49.2 million \$58.3 million and \$39.5 million \$49.2 million. 2020 2021 was \$9.7 million \$9.6 million, \$9.7 million and \$9.8 million \$9.7 million, respectively.

Lease income of \$9.5 million was recognized in the twelve months ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021.

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

<u>As of December 31, 2022</u>		<u>Amount</u>
2023		\$ 9,041
<u>As of December</u>		
<u>31, 2023</u>	<u>As of December 31, 2023</u>	
2024	2024 8,808	
2025	2025 8,935	
2026	2026 8,923	
2027	2027 8,690	
2028		
Thereafter	Thereafter 13,563	
Total	Total <u>\$57,960</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 lease or a 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 payments 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 using 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 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 (less than one year).

Operating leases are included in other assets and other liabilities in the consolidated balance sheets. Finance leases are included in other assets and borrowings. Leases are included in borrowings interest expense in the consolidated statements of income.

The Company has operating leases for real property land, copiers and other equipment. land. These leases have remaining lease terms of less than 1 year to 242; 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.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

The components of lease expense are as follows:

	December 31, 2022	December 31, 2021	
	December 31, 2023		December 31, 2023
Operating lease cost	Operating lease cost	\$ 1,224	\$ 635
Short-term lease cost	Short-term lease cost	99	96
Finance lease cost:	Finance lease cost:		
Amortization of right-of-use assets	Amortization of right-of-use assets	4	3
Amortization of right-of-use assets			
Interest expense on lease liabilities	Interest expense on lease liabilities	—	—
Total net lease cost	Total net lease cost	\$ 1,327	\$ 734
Total net lease cost			
Total net lease cost			

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

	December 31, 2023	December 31, 2023
	December 31, 2022	December 31, 2021
Operating lease right-of-use asset		
Operating lease liability		
Operating lease right-of-use asset		
Operating lease liability		
Operating lease right-of-use asset	\$ 2,118	\$ 2,228
Operating lease liability	2,558	2,436

Finance lease right- of-use asset	—	4
Finance lease liability	—	4

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

Weighted average remaining lease term (years)

Operating leases

Finance lease

Weighted average discount rate

Operating leases

Finance lease

A maturity analysis of operating lease liabilities is as follows:

As of December 31, 2022

2023

2024

2025

2026

2027

Thereafter

Total lease payments

Less: imputed interest

Total lease liabilities

Weighted average remaining lease term (years)

Operating leases

Weighted average discount rate

Operating leases

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

A maturity analysis of operating lease liabilities is as follows:

As of December 31, 2023

2024

2025

2026

2027

2028

Thereafter

Total lease payments

Less: imputed interest

Total lease liabilities

Note 5. Servicing Assets

Loans serviced for others are not included in the accompanying consolidated balance sheets. The unpaid principal balances of loans serviced for others requiring a balance for all loans serviced for others was \$3.48 billion \$4.24 billion, \$3.30 billion \$3.48 billion and \$3.21 billion \$3.30 billion at December 31, 2023, 2022 2021 and 2020.

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

	2022	2021
Balance at beginning of period	Balance at beginning of period	
Additions, net	Additions, net	
Fair value changes:		Fair value changes:
Due to changes in valuation inputs or assumptions	(5,934)	(982)
Due to changes in valuation inputs or assumptions		
(1)		
Decay due to increases in principal paydowns or runoff	Decay due to increases in principal paydowns or runoff	
Balance at end of period	Balance at end of period	

(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 rights was determined using a weighted average discount rate assets related to conventional commercial loans on December 31, 2022 and 16.2% on December 31, 2021, with the actual rate depending on the stratification of the specific right. Changes to fair value are reported in the table below.

The fair value of servicing rights is highly sensitive to changes in underlying assumptions. Changes in prepayment speed assumptions have the most significant impact on the fair value of servicing assets. However, weakening economic conditions or significant declines in interest rates can also increase loan prepayment activity. Measured at December 31, 2023, the fair value of servicing assets was \$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, 2022 December 31, 2023 and 2021 2022 are as follows:

2022	2021	2022
2023		2023

Buildings	Buildings	\$ 54,746	\$ 54,746
Land	Land		
improvements	improvements	5,180	5,180
Furniture and equipment	Furniture and equipment	19,117	18,683
Hardware and software	Hardware and software	10,264	8,399
Leasehold improvements	Leasehold improvements	7,705	8,106
Land	Land	15,982	8,650
Transportation	Transportation	49,766	49,766
Solar panels	Solar panels	163,391	163,391
Deposits on fixed assets	Deposits on fixed assets	33,966	712
Premises and equipment,	Premises and equipment,		
total	total	360,117	317,633
Less accumulated depreciation	Less accumulated depreciation	(96,827)	(77,437)
Premises and equipment,	Premises and equipment,		
net of depreciation	net of depreciation	\$263,290	\$240,196

Deposits on fixed assets at December 31, 2022 December 31, 2023 consist primarily of construction costs related to the Company's planned fourth building, software \$21.1 million, \$21.2 million \$20.6 million and \$21.6 million \$21.2 million, respectively.

In 2022, the Company purchased a building and land adjacent to its main campus for \$18.3 million. \$18.3 million. The building, with a value of \$11.3 million \$11.5 million, is part of the campus expansion.

Note 7. Deposits

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

Noninterest-bearing deposits

Interest-bearing deposits:

Interest-bearing checking

Money market

Savings

Time deposits

Total

Total deposits

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Note 7. Deposits

The types of deposits at December 31, 2022 and 2021 are:

Noninterest-bearing deposits

Interest-bearing deposits:

 Money market

 Savings

 Time deposits

 Total

Total deposits

The aggregate amount of time deposits in denominations of \$250 thousand or more at December 31, 2022 December 31, 2023 and 2021 2022 was approximately \$

<u>Year</u>	<u>Year</u>	<u>Amount</u>	<u>Year</u>
2023		\$2,350,669	
2024	2024	620,558	
2025	2025	431,735	
2026	2026	356,022	
2027	2027	266,189	
2028			
Thereafter		440,636	
Total	Total	<u><u>\$4,465,809</u></u>	

Note 8. Borrowings

Total outstanding borrowings consisted of the following:

Borrowings

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 4.65% 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 at the time of closing. The loan is carried at the carrying amount of the loan and will be amortized into interest expense over the life of the loan.

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 line of credit has a \$100.0 million of available credit remaining at December 31, 2023.

Total borrowings

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 liquid assets held by the Company 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 added to the repurchase agreement, the Company's total unused borrowing capacity will increase.

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 and other assets, 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, of which approximately \$111.7 million and \$983.8 million of securities are available for collateral, respectively. There is no collateral pledged under this agreement.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Note 8. Borrowings

Total outstanding borrowings consisted of the following:

Borrowings

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 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. 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 Paycheck Protection Program Liquidity Facility ("PPPLF"). Under the PPPLF, advances must be secured by collateral pledged to 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. Payments are interest only with all principal and accrued interest due at maturity. The terms of this loan require the Company to maintain minimum 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. On the maturity date of each advance, the Company shall repay the advance plus accrued interest. The borrowing was paid in full at September 30, 2020.

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 1, 2020, the Company increased the line of credit from \$50.0 million to \$100.0 million and increased the term from 12 months to 36 months. The line of credit is unsecured and accrues interest at 30-day SOFR plus 2.75%. Payments are interest only with all principal and accrued interest due at maturity on October 10, 2025. The terms of this loan require the Company to maintain minimum 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. 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, 2022.

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% until December 31, 2023.

Other long term debt ⁽¹⁾

Total borrowings

(1) Includes finance leases paid in full November 1, 2022.

The Company may purchase federal funds through unsecured federal funds lines of credit with various correspondent banks, which totaled \$164.5 million as of December 31, 2022. The Company may also borrow funds through the Bank Term Funding Program ("BTFP"). Under the BTFP, advances must be secured by pledging eligible securities owned by the Company. The Company may also borrow funds through the Federal Home Loan Bank of Atlanta. These borrowings must be secured with eligible collateral. The Company may also borrow funds through the Federal Reserve Bank's discount window. These borrowings are secured by a blanket floating lien on qualifying loans and assets, respectively, in borrowing capacity available under these arrangements with no outstanding balance 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 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 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. On December 31, 2023 and 2022, there was \$100.0 million of available credit.

The Company may borrow funds from the Bank Term Funding Program ("BTFP"). Under the BTFP, advances must be secured by pledging eligible securities owned by the Company. The Company may also borrow funds through the Federal Home Loan Bank of Atlanta. These borrowings must be secured with eligible collateral. The Company may also borrow funds through the Federal Reserve Bank's discount window. These borrowings are secured by a blanket floating lien on qualifying loans and assets, respectively, in borrowing capacity available under these arrangements with no outstanding balance as of December 31, 2021.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

balance.

The Company has entered into a repurchase agreement with a third party for up to \$5.0 million as of December 31, 2022 December 31, 2023 and 2021. The terms of this agreement are subject to certain conditions at the time the Company enters into such transaction. The Company had no outstanding balance on the repurchase agreement as of December 31, 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. The Company may also borrow funds through the Federal Reserve Bank's discount window. These borrowings are secured by a blanket floating lien on qualifying loans and assets, respectively, in borrowing capacity available under these arrangements with no outstanding balance as of December 31, 2022 or 2021.

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 and assets, respectively, in borrowing capacity available under these arrangements with no outstanding balance as of December 31, 2022 or 2021.

Note 9. Income Taxes

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

	2022	2021	2020
2023			
Current income tax expense:	Current	Current	Current
Federal	Federal	\$ 3,686	\$ 12,774
State	State	3,301	6,211
Total current tax expense:	Total	Total	Total
Deferred income tax expense (benefit):			

Current income tax expense:

Federal	Federal	\$ 3,686	\$ 12,774	\$ 2,071
State	State	3,301	6,211	3,222
Total current tax expense:	Total	Total	Total	

Deferred income tax expense (benefit):

6,987	18,985	5,293	
-------	--------	-------	--

Deferred income tax (benefit) expense:	Deferred income tax (benefit) expense:		
Federal	Federal	23,838	22,886 (12,946)
State	State	3,291	1,922 (4,501)
Total deferred tax expense (benefit)		27,129	24,808 (17,447)
Income tax expense (benefit), as reported		\$34,116	\$43,793 \$(12,154)
Total deferred tax (benefit) expense			
Income tax expense, as reported			

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Reported income tax expense (benefit) differed from the amounts computed by applying the U.S. federal statutory income tax rate of 21% in 2023, 2022 2021 and 2020.

	2022	2021	2020	2023
Income tax expense	Income tax expense			
computed at the statutory rate	computed at the statutory rate			
	\$44,168	\$44,266	\$ 9,952	
State income tax expense (benefit), net of federal	5,899	6,426	(1,009)	
State income tax expense, net of federal				
Stock-based compensation expense	Stock-based compensation expense	73	(4,689)	(17,489)
Decrease in taxes due to investment tax credit	Decrease in taxes due to investment tax credit	(16,361)	(3,392)	—
Amended return net benefits	Amended return net benefits	(3,261)	—	—
Net operating loss carryback arising from CARES Act	—	—	(3,732)	
Other	Other	3,598	1,182	124
Total income tax expense (benefit)		\$34,116	\$43,793	\$(12,154)
Other				
Other				

Total
income tax
expense

Components of deferred tax assets and liabilities are as follows:

Deferred tax assets:

- Net unrealized losses on securities available for sale
- Allowance for loan and lease losses
- Stock-based compensation expense
- Capitalized research and experimentation costs
- Accrued expenses
- Operating lease liabilities
- Goodwill and intangibles
- Unguaranteed loan discount
- Deferred loan fees and costs, net
- Other

Total deferred tax assets

Deferred tax liabilities:

- Premises and equipment
- Net unrealized gains on non-marketable and other equity securities
- Mark to market on loans held for sale
- Unguaranteed loan discount
- Deferred loan fees and costs, net
- Operating lease right-of-use assets
- Goodwill and intangibles
- Other

Total deferred tax liabilities

Net deferred tax asset (liability)

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Components of deferred tax assets and liabilities are as follows:

Deferred tax assets:

- Net unrealized losses on securities available for sale
- Allowance for loan and lease losses
- Stock-based compensation expense
- Capitalized research and experimentation costs
- Accrued expenses
- Operating lease liabilities
- Goodwill and intangibles
- Mark to market on loans held for sale
- Deferred loan fees and costs, net
- Other

Total deferred tax assets

Deferred tax liabilities:

- Premises and equipment
- Net unrealized gains on non-marketable and other equity securities
- Mark to market on loans held for sale
- Unguaranteed loan discount
- Deferred loan fees and costs, net
- Operating lease right-of-use assets
- Net unrealized gains on securities available for sale
- Other

Total deferred tax liabilities

Net deferred tax (liability) asset

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 be realized prior to its expiration. The Company considers projected future taxable income, scheduled reversal of deferred tax liabilities, cessation of investing in research and development activities and other factors in making this assessment.

ASC 740, Income Taxes, defines the threshold for recognizing the benefits of tax return positions in the financial statements as "more-likely-than-not" "more-likely-than-not" for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020. 2021. As of December 31, 2023, the Company was under audit by the IRS. The Company's 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 audit.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

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 active quoted prices in an active market for identical assets or liabilities. Financial instruments are considered *Level 2* when valuation can be based on inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Financial instruments are considered *Level 3* when valuation can be based on unobservable inputs 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 valuation principles.

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 include 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 and agency securities with less transparency around inputs to the valuation, securities are classified within Level 3 of the valuation hierarchy.

Loans held for sale: investment: The fair values of loans held for sale accounted for under the fair value option are determined by discounting estimated cash flows. Due to the nature of the valuation inputs, loans held for sale are classified within Level 3 of the valuation hierarchy.

Loans held for investment: The fair values of loans held for investment accounted for under the fair value option are typically determined based on discounted cash flows. If the collateral is dependent, the fair value is determined based on the difference between the estimated fair value of the collateral and similar assets such as prepayment speeds. The estimated fair value which is then adjusted for the cost related to liquidation of the collateral. 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 of the sale are not readily observable. The fair value of servicing assets is determined based on the perspective of a market participant including servicing income, ancillary income, servicing costs, market discount rates and prepayment speeds. Due to the nature of the valuation inputs, servicing assets 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 is traded in markets that are not active and is classified as Level 2 within the valuation hierarchy.

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Equity warrant assets: Fair value measurements of equity warrant assets of private companies are priced based on a Black-Scholes option pricing model to estimate on public companies that operate in similar industries as the companies in the Company's private company portfolio. Option expiration dates are modified to account for 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.

		Twelve months ended December 31,		2023
Equity Warrant	Equity Warrant	2022	2021	
Assets	Assets			Equity Warrant Assets
Balance at beginning of period	Balance at beginning of period	\$1,672	\$ 908	
Issuances	Issuances	833	229	
Net gains on derivative instruments	Net gains on derivative instruments	671	1,088	
Settlements	Settlements	(966)	(553)	
Balance at end of period	Balance at end of period	<u>\$2,210</u>	<u>\$1,672</u>	

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

		Level		
<u>December 31, 2022</u>		Total	1	Level 2
<u>December 31, 2023</u>		<u>December 31, 2023</u>		
Investment securities available-for-sale	Investment securities available-for-sale			
US government agencies		\$ 15,668	\$—	\$ 15,668
U.S. government agencies				
U.S. government agencies				
U.S. government agencies				
Mortgage-backed securities	Mortgage-backed securities	995,574	—	995,574
Municipal bonds ⁽¹⁾	Municipal bonds ⁽¹⁾	2,977	—	2,884
				93

Other debt securities	500	—	500	—
Loans held for investment				
Loans held for investment				
Loans held for investment				
investment	494,458	—	—	494,458
Servicing assets ⁽²⁾	Servicing assets ⁽²⁾	26,323	—	—
Mutual fund	Mutual fund	1,656	—	1,656
Equity warrant assets	Equity warrant assets	2,210	—	—
Total assets	Total assets			
at fair value	at fair value	\$1,539,366	\$—	\$1,016,282
		<u><u>\$1,539,366</u></u>	<u><u>\$—</u></u>	<u><u>\$1,016,282</u></u>
				<u><u>\$523,084</u></u>

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

				Level	
		Total	1	Level 2	Level 3
<u><u>December 31, 2021</u></u>					
<u><u>December 31,</u></u>					
<u><u>2022</u></u>					<u><u>December 31, 2022</u></u>
Investment securities available-for-sale	Investment securities available-for-sale				
US government agencies	US government agencies	\$ 10,637	\$—	\$ 10,637	\$ —
U.S. government agencies	U.S. government agencies				
U.S. government agencies	U.S. government agencies				
U.S. government agencies	U.S. government agencies				
Mortgage-backed securities	Mortgage-backed securities	889,339	—	889,339	—
Municipal bonds ⁽¹⁾	Municipal bonds ⁽¹⁾	3,576	—	3,480	96
Other debt securities	Other debt securities	2,500	—	2,500	—
Loans held for sale		25,310	—	—	25,310
Loans held for investment	Loans held for investment	645,201	—	—	645,201
Servicing assets ⁽²⁾	Servicing assets ⁽²⁾	33,574	—	—	33,574
Mutual fund	Mutual fund	2,379	—	2,379	—
Equity warrant assets	Equity warrant assets	1,672	—	—	1,672
Total assets	Total assets				
at fair value	at fair value	\$1,614,188	\$—	\$908,335	\$705,853
		<u><u>\$1,614,188</u></u>	<u><u>\$—</u></u>	<u><u>\$908,335</u></u>	<u><u>\$705,853</u></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. The Company recorded a principal paydown of \$1 thousand and a fair value adjustment gain of \$1 thousand.

(2) See Note 5 for a rollforward of recurring Level 3 fair values for servicing assets.

Fair Value Option

The Company has historically elected to account for retained participating interests of all government guaranteed loans and recognized in loans and fees the same manner on loans on the Company's consolidated statements of income. Beginning in the first quarter of 2021, the Company 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. The ongoing effort to reduce volatility and drive more predictable revenue. In accordance with accounting standards, GAAP, any loans for which fair value was previously

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, 2022 December 2021, 2022, respectively.

Live Oak Bancshares, Inc. Notes to Consolidated Financial Statements

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

Fair Value Option Elections	Total Loans		
	Fair Value Carrying Amount	Unpaid Principal Balance	Difference
	\$	\$	\$
Loans held for investment	\$ 494,458	\$ 513,219	\$
	\$ 494,458	\$ 513,219	\$

Fair Value Option Elections	Total Loans		
	Fair Value Carrying Amount	Unpaid Principal Balance	Difference
	\$	\$	\$
Loans held for sale	\$ 25,310	\$ 26,831	\$
Loans held for investment	645,201	666,066	
	\$ 670,511	\$ 692,897	\$

The following table presents the net gains (losses) from changes in fair value.

Gains (Losses) on Loans Accounted for under the Fair Value Option

Loans held for sale
Loans held for investment

Losses related to borrower-specific credit risk were \$1.9 million and \$1.5 million for the twelve months ended December 31, 2022 and 2021, respectively.

Fair Value Option Elections	Total Loans		
	Fair Value Carrying Amount	Unpaid Principal Balance	Difference
	\$	\$	\$
Loans held for investment	\$ 388,036	\$ 407,544	\$
	\$ 388,036	\$ 407,544	\$

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

Fair Value Option Elections

Loans held for investment

Total Loans		
Fair Value Carrying Amount	Unpaid Principal Balance	Difference
\$ 494,458	\$ 513,219	\$
<u>\$ 494,458</u>	<u>\$ 513,219</u>	<u>\$</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

Loans held for sale

Loans held for investment

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.

Twelve Months Ended

December 31,

Twelve Months Ended

December 31,

Loans held for	Loans held			Loans held for sale	2023
sale	for sale	2022	2021		
Balance at	Balance at				
beginning of	beginning				
period	of period	\$25,310	\$36,111		

Repurchases &

Issuances 65 —

Repurchases

and

issuances

Fair value	Fair value			
changes	changes	1,521	502	
Transfers	Transfers	(26,219)	—	

Transfers

Transfers

Settlements Settlements (677) (11,303)

Balance at

Balance at end of period (26,219) \$ — \$25,310

Twelve Months Ended

December 31,

Twelve Months Ended

December 31,

Loans held

Loans held for

investment investment 2022 2021

Loans held for investment

Balance at	Balance at		
beginning of	beginning		
period	of period	\$645,201	\$815,374
Repurchases &			
Issuances		18,629	37,159
Repurchases			
and			
issuances			
Fair value	Fair value		
changes	changes	(475)	3,755
Transfers	Transfers	26,219	—
Settlements	Settlements	<u>(195,116)</u>	<u>(211,087)</u>
	Balance at		
Balance at	end of		
end of period	period	<u>\$494,458</u>	<u>\$645,201</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 principles used.

Collateral-dependent loans: Loans are considered collateral-dependent when the Company has determined that foreclosure of the collateral is probable or when 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 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 measured at fair value less costs of disposal. Given the lack of observable market prices for identical properties and market discounts applied to appraised values, the Company generally uses Level 3 to determine the fair value of the collateral.

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.

December 31, 2023

Collateral-dependent loans

Foreclosed assets

Total assets at fair value

December 31, 2022

Collateral-dependent loans

Total assets at fair value

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

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

December 31, 2022

Collateral-dependent loans

Total assets at fair value

December 31, 2021

Collateral-dependent loans

Foreclosed assets

Total assets at fair value

Level 3 Analysis

For Level 3 assets and liabilities measured at fair value on a recurring or non-recurring basis as of December 31, 2022 December 31, 2023 and December 31, 2022

December 31, 2022

December 31,

2023

Level 3 Assets with Significant
Unobservable Inputs

Level 3 Assets with Significant
Unobservable Inputs

Level 3 Assets	Level 3 Assets					
with	with					
Significant	Significant					
Unobservable	Unobservable					
Inputs	Inputs					

Recurring fair value	Recurring fair value					
Municipal bond	Municipal bond					

		Fair Value	Valuation Technique	Significant Unobservable Inputs	Range	Weighted Average(1)
		\$ 93	Discounted expected cash flows	Discount rate	6.0 %	N/A
			Prepayment speed		5.0 %	N/A

Municipal bond						
----------------	--	--	--	--	--	--

Loans held for investment	Loans held for investment	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 %	Loans in ve
				Prepayment speed		16.5 %	16.5 %
				Discounted appraisals	Appraisal adjustments	0.0 % - 77.3 %	28.6 %
						(2)	

Servicing assets						
------------------	--	--	--	--	--	--

Equity warrant assets	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 %	Equity warrant assets
			Marketability discount	20.0 %	20.0 %	
			Remaining life	3 - 10 years	7.7 years	

Non-recurring fair value	Non-recurring fair value					
--------------------------	--------------------------	--	--	--	--	--

Collateral-dependent loans	Collateral-dependent loans	\$ 4,840	Discounted appraisals	Appraisal adjustments (2)	10.0 % - 66.5 %	34.2 %
Collateral-dependent loans						
Collateral-dependent loans						
Foreclosed assets						Foreclosed assets

Live Oak Bancshares, Inc.
Notes to Consolidated Financial Statements

December 31, 2021

December 31, 2022

Level 3 Assets with Significant Unobservable Inputs

Level 3 Assets with Significant Unobservable Inputs

Level 3 Assets with Significant Significant Unobservable Inputs	Level 3 Assets with Significant Significant Unobservable Inputs
---	---

with Significant Unobservable Inputs	with Significant Unobservable Inputs
---	---

Recurring fair value	Recurring fair value
----------------------	----------------------

		Fair Value	Valuation Technique	Significant Unobservable Inputs	Range	Weighted Average ⁽¹⁾
Municipal bond	Municipal bond	\$ 96	Discounted expected cash flows	Discount rate	4.8 %	N/A
Loans held for sale		\$ 25,310	Discounted expected cash flows	Discount rate	6.2 % - 21.9 %	6.6 %

Municipal bond

Loans held for investment	Loans held for investment	\$645,201	Discounted expected cash flows	Loss rate	0.0 % - 70.2 %	1
			Prepayment speed		6.2 % - 21.9 %	6.6 %
			Discounted appraisals	Appraisal adjustments (2)	17.4 % 10.0 % - 85.0 %	17.4 % 16.2 %

Servicing assets

Equity warrant assets	Equity warrant assets	\$ 1,672	Black-Scholes option	Volatility	26.2 % - 88.2 %	39.2 %	Servicing assets	Equity warrant assets
-----------------------	-----------------------	----------	----------------------	------------	-----------------	--------	------------------	-----------------------

		pricing model	Risk-free interest rate	1.3 % - 1.5 %	1.5 %		
			Marketability discount	20.0 %	20.0 %	Equity warrant assets	
			Remaining life	4 - 10 years	7.5 years		
Non-recurring	Non-recurring						
fair value	fair value						
Collateral-dependent loans	Collateral-dependent loans	\$ 1,567	Discounted appraisals	Appraisal adjustments (2)	10.0 % - 99.0 %	32.9 %	
Foreclosed assets		\$ 620	Discounted appraisals	Appraisal adjustments (2)	9.0 % - 10.0 %	9.5 %	
Collateral-dependent loans							
Collateral-dependent loans							

(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 discount rate and estimates of future cash flows. In that regard, the derived fair value estimates cannot be substantiated by comparison to independent markets a 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>		Carrying Amount
Financial assets		
Cash and due from banks	\$	582,540
Certificates of deposit with other banks		250
Loans held for sale		387,037
Loans and leases held for investment, net of allowance for credit losses on loans and leases		8,119,971
Financial liabilities		
Deposits		10,275,019
Borrowings		23,354

<u>December 31, 2022</u>		Carrying Amount
Financial assets		
Cash and due from banks	\$	280,239
Federal funds sold		136,397
Certificates of deposit with other banks		4,000
Loans held for sale		554,610
Loans and leases held for investment, net of allowance for credit losses on loans and leases		6,753,154
Financial liabilities		

Deposits		8,884,928
Borrowings		83,203
<u>December 31, 2021</u>		
<i>Financial assets</i>		
Cash and due from banks	\$	187,203
Federal funds sold		16,547
Certificates of deposit with other banks		4,750
Loans held for sale		1,091,209
Loans and leases held for investment, net of allowance for credit losses on loans and leases		4,812,477
<i>Financial liabilities</i>		
Deposits		7,112,044
Borrowings		318,289

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

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, 2022 December 31,

On March 12, 2021, a purported class action was filed against the Company in the United States District Court for the Eastern District of North Carolina, Joseph A. et al. v. Live Oak Bancshares, Inc. and its wholly-owned subsidiary, Live Oak Financial, LLC in which those companies purportedly sought to restrain the mobility of employees in violation of antitrust laws by agreeing not to solicit or hire each other's employees. The plaintiff sought monetary damages, including treble damages, entitlement to restitution, disgorgement, attorneys' fees, and pre- and post-judgment interest. On October 12, 2021, the parties reached a settlement agreement. Pursuant to the terms of the settlement, the Company will pay \$2.731 million to the plaintiff. The plaintiff filed a motion for final approval on March 28, 2022, which the court granted by order entered on April 28, 2022. Pursuant to the terms of the settlement, the plaintiff will receive \$2.634 million in cash and \$100,000 in attorneys' fees.

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 letters of credit, standby letters of credit, and commitments to extend credit.

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 as follows:

	December 31, December 31,		
	2022	2021	
Commitments to extend credit	\$2,731,866	\$2,634,387	
			December 31, 2023
Commitments to extend credit ⁽¹⁾			
Standby letters of credit	26,454	10,753	
Airplane purchase agreement commitments	24,000	—	

Total unfunded off-balance sheet credit risk	Total unfunded off-balance sheet credit risk	\$2,782,320	\$2,645,140
--	--	-------------	-------------

(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 do not necessarily represent future cash requirements. The Company evaluates each customer's creditworthiness on a case-by-case basis. The amount of commitment is based on the customer's inventory, property and equipment, residential real estate and income-producing commercial properties. Commitment letters are issued after approval of the loan by the appropriate lending committee.

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 issued based on the collateral held varies as specified above and is required in instances which the Company deems necessary.

Other Commitments

Live Oak Bancshares, Inc.

Notes 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, 2022, the Company had recorded unfunded commitments to provide capital contributions for the new facility.

As of December 31, 2022 December 31, 2023 and 2021, December 31, 2022, the Company had recorded unfunded commitments to provide capital contributions for the new facility.

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 \$1.10 billion of which \$440.9 million \$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 \$58.0 million \$48.5 million, of which no re-

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)

Midwest

Northeast

Southeast

Southwest

West

Total

(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, 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 are selected at the discretion of the board of directors. Company expense relating to the plan for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020.

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

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 ap 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 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

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") 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 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 shares. Awards 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.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Compensation cost relating to share-based payment transactions are recognized in the financial statements with measurement based upon the fair value of the equity instruments \$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, 2022 December 31, 2023 is summarized below.

	Shares
Outstanding at December 31, 2021	1,485,396
Exercised	(1,485,396)
Forfeited	(1,485,396)
Outstanding at December 31, 2022	0
Exercisable at December 31, 2022	0

	Shares
Outstanding at December 31, 2022	0
Exercised	(0)
Outstanding at December 31, 2023	0
Exercisable at December 31, 2023	0

The following is a summary of non-vested stock option activity for the Company for the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020.

	Weighted	Average	Grant	Date Fair
	Shares	Value		
Non-vested at				
December 31, 2019	1,485,396	\$ 4.73		

Vested	(387,867)	3.05
Forfeited	(74,893)	4.52

Shares		Shares
Non-vested	Non-vested	
at	at	
December	December	
31, 2020	31, 2020	1,022,636 5.38
Vested	Vested	(592,693) 4.35
Forfeited	Forfeited	(47,093) 7.28
Non-vested	Non-vested	
at	at	
December	December	
31, 2021	31, 2021	382,850 6.75
Vested	Vested	(336,464) 6.85
Forfeited	Forfeited	(8,626) 6.95
Non-vested	Non-vested	
at	at	
December	December	
31, 2022	31, 2022	<u>37,760</u> <u>\$</u> <u>6.60</u>
Vested		
Non-vested	at	
December 31, 2023		
Non-vested	at	
December 31, 2023		
Non-vested	at	
December 31, 2023		

The total intrinsic value of options exercised during the years ended December 31, 2022 December 31, 2023, 2022 and 2021 was \$2.8 million, \$7.0 million and 202

At December 31, 2022 December 31, 2023, there was no unrecognized compensation costs relating to stock options amounted to \$25 thousand which will be recog

There were no options granted in 2023, 2022 2021 or 2020, 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. The Company replaced the previously existing Restricted Stock Plan, during 2020, 586,132 1,329,508 restricted stock units were granted during 2021 to eligible employees and officers. The grant date fair value of \$58.19. The vesting of these grants was time based and had no market price conditions. During 2022, 885,939 restricted stock units were granted. 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 c

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

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

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 RS

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 conditions. The outstanding Market RSUs as of December 31, 2020, the market price conditions ranged from \$45.00 to \$55.00 per share. The non-market-related performance criteria 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, 2022 December 31, 2023.

		Weighted	Average	Grant	Date Fair
		Shares		Value	
Non-vested at					
December 31, 2021	1,907,513	\$ 46.12			
Non-vested at December 31, 2022			Shares		
Granted	Granted	885,939	37.75		
Vested	Vested	(314,703)	41.62		
Forfeited	Forfeited	(69,051)	46.23		
Non-vested at December 31, 2022	2,409,698	\$ 43.63			
Non-vested at December 31, 2023					

During 2021 2022 and 2020, 2021, the Company granted 1,329,508 885,939 and 586,132 1,329,508 RSUs, respectively. The weighted average grant date fair value

For the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021, the Company recognized \$19.4 million \$17.6 million, \$11.4 million \$19.4 million

At December 31, 2022 December 31, 2023, unrecognized compensation costs relating to RSUs amounted to \$88.1 million \$77.1 million which will be recognized over

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

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

For the years year ended December 31, 2021 and 2020, the Company recognized \$4.2 million and \$9.7 million, respectively, in compensation expense for Market remaining expense of \$3.7 million was fully recognized due to the accelerated vesting. For the year ended December 31, 2020, 2,513,233 Market RSUs met the vesting.

There were no remaining Market RSUs at year end December 31, 2022 December 31, 2023 and 2021, 2022.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

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 also generally influenced by each individual's tiered target as a percent of base pay. Total expenses related to the cash bonus for employees were \$9.4 million \$10.4 million December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021 the Company had discretionary special bonuses related to fintech investment gains of \$4.5 million \$4.5 million

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 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 core 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 to 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 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.

As discussed in Note 1, Organization and Summary of Significant Accounting Policies, the Company recorded a cumulative effect increase to retained earnings to the day one effects of ASC 326 on their regulatory capital ratios over multiple years.

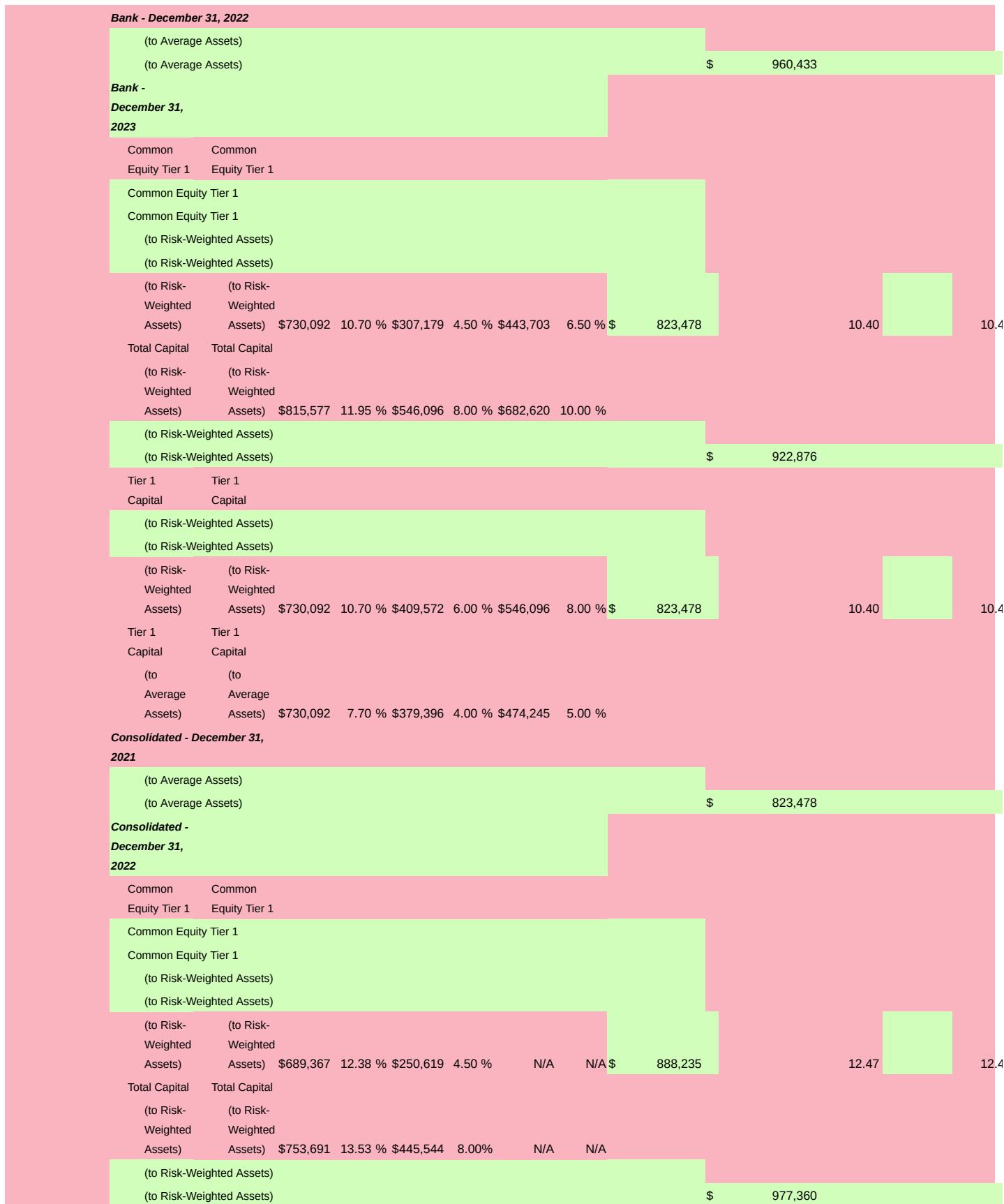
Federal bank regulatory agencies have issued an interim final rule that permits banks to neutralize the regulatory capital effects of participating in the PPP LF and consolidated assets for the purposes of calculating its leverage ratio, while PPP loans that are not pledged as collateral to the PPP LF will be included. Accordingly,

Based on the most recent notification from the Federal Deposit Insurance Corporation, the Bank is well capitalized under the regulatory framework for prompt correction 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, 2022 December 31, 2023 and 2021, are presented in the following table.

		Actual		Minimum Capital Requirement		Minimum To Be Well Capitalized		
		Amount	Ratio	Amount	Ratio	Amount	Ratio	
Consolidated - December 31, 2022								
Actual								
	Amount						Amount	
Consolidated - December 31, 2023								
Common Equity Tier 1	Common Equity Tier 1							
Common Equity Tier 1								
(to Risk-Weighted Assets)								
(to Risk-Weighted Assets)								
(to Risk-Weighted Assets)	(to Risk-Weighted Assets)							
(to Risk-Weighted Assets)								
Total Capital	Total Capital							
(to Risk-Weighted Assets)	(to Risk-Weighted Assets)							
(to Risk-Weighted Assets)								
Tier 1 Capital	Tier 1 Capital							
(to Risk-Weighted Assets)	(to Risk-Weighted Assets)							
(to Risk-Weighted Assets)								
(to Risk-Weighted Assets)	(to Risk-Weighted Assets)							
(to Risk-Weighted Assets)								
Tier 1 Capital	Tier 1 Capital							
(to Average Assets)	(to Average Assets)							
(to Average Assets)								



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 2022, 2023:

Balance as of December 31, 2021

Loan originations

Loan repayments

Balance as of December 31, 2022

Loan originations

Loan repayments

Balance as of December 31, 2023

Deposits from related parties held by the Company as of December 31, 2022 December 31, 2023 and 2021 2022 amounted to \$63.5 million \$48.6 million and \$40.3

Transactions with related parties include the following equity method investments: Apiture, Inc. ("Apiture"), Canapi Funds, Cape Fear Collective 1 & 2, OTR, Estrella

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 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 that qualifies as an affordable housing project located in Wilmington, NC. Green Sun, Sunvest, HEP, and HEP Heelstone are solar income tax credit projects. See Note 15.

During the years ended December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, the Company paid Apiture \$2.0 million \$2.5 million, \$1.2 million \$2.0 million \$601 thousand and \$782 \$601 thousand, respectively, for shared services and rent.

During the years ended December 31, 2022, and 2021, and 2020, the Company made charitable contributions in the amounts of \$310 thousand \$352 thousand and \$310 thousand a 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. Significant Equity Method Investments

In accordance with Rules 3-09 and 4-08(g) of Regulation S-X, the Company must assess whether any of its equity method investments are significant equity method investments. Regulation S-X requires separate audited financial statements of an equity method investee in an annual report if either the income or investment test exceeds 20% of the investment in an annual report if any of the three tests exceeds 10%. Under the income test, the Company's proportionate share of its equity method investees' aggregated income is presented in this Form 10-K.

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

The following table provides summarized balance sheet information for the Company's combined equity method investments as of December 31, 2022 and 2021. Total assets include cash and solar investment tax credits.

Balance sheet data

Current assets

Noncurrent assets

Total assets

Current liabilities

Noncurrent liabilities

Total liabilities

Equity interests

Total liabilities and equity

The following table provides summarized income statement information for the Company's combined equity method investments for the years ended December 31, 2022 and 2021.

Summary of operations

Total revenues

Net (loss) income

Note 16. Segments

The Company's management reporting process measures the performance of its operating segments based on internal operating structure, which is subject to change.

Banking - This segment specializes in providing financing services to small businesses nationwide in targeted industries and deposit-related services to small business.

Fintech - This segment is involved in making strategic investments into emerging financial technology companies. The primary sources of revenue for this segment are from its investments in Apiture, 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 segments of the Company.

	Banking	Fintech	Other	Consolidated		Banking
As of and for the year ended December 31, 2023						
Interest income						
Interest income						
Interest income						
Interest expense						
Net interest income						
Provision for loan and lease credit losses						
Noninterest income						
Noninterest expense						
Income tax (benefit) expense						
Net income (loss)						
Total assets						
As of and for the year ended December 31, 2022	As of and for the year ended December 31, 2022					
Interest income						
Interest income						
Interest income	\$ 444,307	\$ 93	\$ 73	\$ 444,473		
Interest expense	115,324	—	1,648	116,972		

Net interest	Net interest				
income	income	328,983	93	(1,575)	327,501
Provision	Provision				
for loan	for loan				
and lease	and lease				
credit	credit				
losses	losses	40,943	—	—	40,943
Noninterest	Noninterest				
income	income	80,562	155,028	2,402	237,992
Noninterest	Noninterest				
expense	expense	296,891	9,413	7,922	314,226
Income tax	Income tax				
(benefit)	(benefit)				
expense	expense	(226)	36,016	(1,674)	34,116
Net income	Net income				
(loss)	(loss)	\$ 71,937	\$109,692	\$ (5,421)	\$ 176,208
Total	Total				
assets	assets	\$9,672,458	\$124,249	\$58,791	\$ 9,855,498
As of and	As of and				
for the year	for the year				
ended	ended				
December	December				
31, 2021	31, 2021				
Interest	Interest				
income	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 expense		35,539	10,280	(2,026)	43,793
Net income (loss)		\$ 145,662	\$ 27,667	\$ (6,334)	\$ 166,995
Total assets		\$8,053,212	\$121,889	\$38,292	\$ 8,213,393
As of and for the year					
ended December 31,					
2020					
Interest income					
Interest	Interest				
income	income	\$ 288,305	\$ —	\$ 103	\$ 288,408
Interest	Interest				
expense	expense	93,313	—	372	93,685
Net interest	Net interest				
income	income	194,992	—	(269)	194,723
Provision	Provision				
for loan	for loan				
and lease	and lease				
credit	credit				
losses	losses	40,658	—	—	40,658
Noninterest	Noninterest				
income	income	77,512	6,567	1,921	86,000
Noninterest	Noninterest				
expense	expense	181,555	5,510	5,611	192,676

Income tax	Income tax			
(benefit)	(benefit)			
expense	expense	(7,171)	2,989	(7,972)
				(12,154)
Net income	Net income			
(loss)	(loss)	\$ 57,462	\$ (1,932)	\$ 4,013
				\$ 59,543
Total assets	Total assets	\$7,767,013	\$ 83,946	\$21,344
				\$ 7,872,303

Live Oak Bancshares, Inc.

Notes to Consolidated Financial Statements

Note 17.16. Parent Company Only Financial Statements

The following balance sheets, statements of income and statements of cash flows are for Live Oak Bancshares, Inc.

		As of December 31,		
		2022	2021	
		As of December		
		31,		
		2023		2023
Assets	Assets			
Cash and cash equivalents				
Cash and cash equivalents				
Cash and cash equivalents	Cash and cash equivalents			
equivalents	equivalents	\$ 103,238	\$ 10,635	
Investment in subsidiaries	Investment in subsidiaries	704,905	723,803	
Other assets	Other assets	50,801	40,149	
Total assets	Total assets	\$ 858,944	\$ 774,587	
Liabilities and Shareholders' Equity	Liabilities and Shareholders' Equity			
Liabilities and Shareholders' Equity	Liabilities and Shareholders' Equity			
Borrowings				
Borrowings				
Borrowings	Borrowings	\$ 33,203	\$ 50,734	
Other liabilities	Other liabilities	14,708	8,720	
Total liabilities	Total liabilities	47,911	59,454	
Shareholders' equity:	Shareholders' equity:			
Shareholders' equity:	Shareholders' equity:			
Common stock				
Common stock				
Common stock	Common stock	330,854	312,294	
Retained earnings	Retained earnings	572,497	400,893	

Accumulated other comprehensive (loss) income	(92,318)	1,946
Accumulated other comprehensive loss		
Total shareholders' equity	<u>811,033</u>	<u>715,133</u>
Total liabilities and shareholders' equity	<u>\$ 858,944</u>	<u>\$774,587</u>

Years ended December 31,		
2022 2021 2020		
Years ended December 31,		
	2023	2022
Interest income	Interest income	\$ 73 \$ 25 \$ 91
Interest expense	Interest expense	1,648 1,309 372
Net interest loss	Net interest loss	(1,575) (1,284) (281)
Noninterest income:	Noninterest income:	
Other noninterest income	Other noninterest income	(107) 716 252
Other noninterest income		
Total noninterest income	Total noninterest income	(107) 716 252
Noninterest expense:	Noninterest expense:	
Salaries and employee benefits	Salaries and employee benefits	1,444 5,120 17,250
Salaries and employee benefits		
Professional services expense	Professional services expense	1,163 679 750
Other expense		
Other expense	Other expense	1,907 789 1,167
Total noninterest expense	Total noninterest expense	4,514 6,588 19,167
Net loss before equity in undistributed income of subsidiaries	Net loss before equity in undistributed income of subsidiaries	(6,196) (7,156) (19,196)
Income tax benefit	Income tax benefit	(1,358) (1,615) (7,785)
Net loss	Net loss	(4,838) (5,541) (11,411)

Equity in undistributed income of subsidiaries in excess of dividends from subsidiaries	Equity in undistributed income of subsidiaries in excess of dividends from subsidiaries	181,046	172,536	70,954
Net income attributable to Live Oak Bancshares, Inc.	Net income attributable to Live Oak Bancshares, Inc.	\$176,208	\$166,995	\$59,543

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

		Years ended December 31,		
		2022	2021	2020
		Years ended December 31,		
		2023	2022	
Cash flows from	Cash flows from			
operating activities	operating activities			
Net income	Net income	\$176,208	\$166,995	\$59,543
Adjustments to reconcile net income to				
net cash (used in) provided by				
operating activities:				
Net income				
Net income				
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				
Equity in undistributed net income of				
subsidiaries in excess of dividends				
of subsidiaries				
Equity in	Equity in			
undistributed	undistributed			
net income of	net income of			
subsidiaries in	subsidiaries in			
excess of	excess of			
dividends of	dividends of			
subsidiaries	subsidiaries	(181,046)	(172,536)	(70,954)
Subsidiary	Subsidiary			
vesting of	vesting of			
restricted	restricted			
stock and	stock and			
other	other	(14,862)	2,679	43,507
Deferred income tax		434	30,070	1,163
Deferred tax				
(benefit)				
expense				

Stock option compensation expense				
Stock option compensation expense				
Stock option compensation expense	Stock option compensation expense	942	1,379	1,594
Restricted stock compensation expense	Restricted stock compensation expense	19,405	15,572	13,146
Business combination contingent consideration fair value adjustments	Business combination contingent consideration fair value adjustments	(86)	99	163
Net change in other assets	Net change in other assets	(2,846)	(22,645)	(6,182)
Net change in other liabilities	Net change in other liabilities	(1,626)	(11,243)	(525)
Net cash (used in) provided by operating activities		(3,477)	10,370	41,455

Cash flows from investing activities ***Cash flows from investing activities***

Capital return on (investment in) subsidiaries		121,750	(26,407)	(6,354)
Capital (investment in) return on subsidiaries				
Capital (investment in) return on subsidiaries				
Capital (investment in) return on subsidiaries				
Purchases of equity security investments	Purchases of equity security investments	(182)	(84)	(17)
Purchases of equity method investments	Purchases of equity method investments	(904)	(237)	(507)
Business combination, net of cash acquired		—	—	(895)
Net cash provided by (used in) investing activities		120,664	(26,728)	(7,773)

Net cash (used in) provided by investing activities				
Net cash (used in) provided by investing activities				
Net cash (used in) provided by investing activities				
Net cash (used in) provided by investing activities				

Cash flows from financing activities ***Cash flows from financing activities***

Proceeds from borrowings				
Proceeds from borrowings				

Proceeds from borrowings	Proceeds from borrowings	12,096	57,675	70,000
Repayment of borrowings	Repayment of borrowings	(29,627)	(21,429)	(55,512)
Stock option exercises	Stock option exercises	2,118	4,158	3,069
Employee stock purchase program	Employee stock purchase program	1,067	670	520
Withholding cash issued in lieu of restricted stock and other	Withholding cash issued in lieu of restricted stock and other	(4,972)	(19,151)	(49,229)
Repurchase and retirement of shares	Repurchase and retirement of shares	—	(953)	—
Shareholder dividend distributions	Shareholder dividend distributions	(5,266)	(5,186)	(4,906)
Net cash (used in) provided by financing activities	Net cash (used in) provided by financing activities	(24,584)	15,784	(36,058)
Net change in cash and cash equivalents at beginning of year	Net change in cash and cash equivalents at beginning of year	92,603	(574)	(2,376)
Cash and cash equivalents at beginning of year	Cash and cash equivalents at beginning of year	10,635	11,209	13,585
Cash and cash equivalents at end of year	Cash and cash equivalents at end of year	\$103,238	\$ 10,635	\$11,209

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 the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only 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)

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 period covered by this Annual Report on Form 10-K.

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 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, physical controls, and operating procedures and methods of doing business that 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 are being made only in accordance with general or specific purposes authorized by the board of directors. The Company's internal control over financial reporting also includes the processes and controls that 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 are being made only in accordance with general or specific purposes authorized by the board of directors.

Because of its inherent limitations, internal control over financial reporting might not prevent or detect misstatements. Also, projections of any evaluation of effectiveness of internal control over financial reporting are not likely to evaluate the effectiveness of internal control over financial reporting in future years.

As of December 31, 2022 December 31, 2023, management assessed the effectiveness of the Company's internal control over financial reporting based on the criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations 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. The term "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

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 2023 Annual Meeting of Shareholders (the "Proxy Statement"), "Executive Officers," "Report of the Audit and Risk Committee," and "Delinquent Section 16(a) Reports" and is incorporated herein by reference. The Proxy Statement will be filed with the SEC no later than April 10, 2024.

Item 11. EXECUTIVE COMPENSATION

The information required by Item 11 will be included in the section of the Proxy Statement entitled "Executive Compensation and Other Matters" under the following headings: "Compensation Committee Report," "Compensation of Directors," "Compensation of Executive Officers," "Compensation of Other Employees," "Payments upon Termination or Change in Control," "Principal Executive Officer Pay Ratio," and "Director Compensation," and in the section of the Proxy Statement entitled "Stockholders' Meeting" under the heading "Proxy Statement on Form 10-K."

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."

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 Qualifications," and "Code of Ethics."

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.

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, 2022 December 31, 2023 and 2021 2022](#)

[Consolidated Statements of Income for the Years Ended December 31, 2022, December 31, 2023, 2022 and 2021 and 2020](#)

[Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2022, December 31, 2023, 2022 and 2021 and 2020](#)

[Consolidated Statements of Changes in Shareholders' Equity for the Years Ended December 31, 2022, December 31, 2023, 2022 and 2021 and 2020](#)

[Consolidated Statements of Cash Flows for the Years Ended December 31, 2022, December 31, 2023, 2022 and 2021 and 2020](#)

[Notes to Consolidated Financial Statements](#)

(a)(2) Financial Statement Schedules. All applicable financial statement schedules required under Regulation S-X have been included in the Notes to the Consolidated Financial Statements.

(a)(3) Exhibits. The exhibits listed below are filed or furnished as a part of this Annual Report on Form 10-K.

Exhibit No.	Description of Exhibit
3.1	Amended and Restated Articles of Incorporation of Live Oak Bancshares, Inc. (incorporated by reference to Exhibit 3.1 of the registration statement on Form S-1 filed on November 1, 2019)
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 November 1, 2019)
4.1	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 of the registration statement on Form S-1, filed on November 1, 2019)
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 for the year ended December 31, 2019)
10.1	2008 Incentive Stock Option Plan, as amended (incorporated by reference to Exhibit 10.1 of the registration statement on Form S-8 filed on November 1, 2019)
10.2.1	2008 Nonstatutory Stock Option Plan, as amended (incorporated by reference to Exhibit 10.2 of the registration statement on Form S-8 filed on November 1, 2019)
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 for the quarter ended June 30, 2019)
10.3	Second Amended and Restated Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.2 of the current report on Form 10-Q for the quarter ended June 30, 2019)
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 registration statement on Form S-8 filed on November 1, 2019)
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 10-Q for the quarter ended June 30, 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 10-Q for the quarter ended June 30, 2021)
10.4.4	
10.5.1	Software Service Agreement between Live Oak Banking Company and nCino, LLC, dated November 1, 2012 (incorporated by reference to Exhibit 10.5.1 of the registration statement on Form S-1 filed on November 1, 2019)
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 10.5.2 of the registration statement on Form S-1 filed on November 1, 2019)

10.5.3 [Amendment to Software Service Agreement dated September 5, 2018, between Live Oak Banking Company and nCino, Inc.](#)

10.5.4 [Amendment to Software Service Agreement dated September 21, 2018, between Live Oak Banking Company and nCino, Inc.](#)

10.5.5 [Renewal Amendment to Software Service Agreement dated January 18, 2019, between Live Oak Banking Company and nCino, Inc.](#)

10.5.6 [Amendment to Software Service Agreement dated April 1, 2020, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended March 31, 2020\)](#)

10.5.7 [Amendment to Software Service Agreement dated April 5, 2020, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended June 30, 2020\)](#)

10.5.8 [Amendment to Software Service Agreement dated April 24, 2020, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended September 30, 2020\)](#)

10.5.9 [Amendment to Software Service Agreement dated December 1, 2020, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended December 31, 2020\)](#)

10.5.10 [Amendment to Software Service Agreement dated January 13, 2021, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended March 31, 2021\)](#)

10.5.11 [Amendment to Software Service Agreement dated January 15, 2021, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended June 30, 2021\)](#)

10.5.12 [Amendment to Software Service Agreement dated January 23, 2021, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended September 30, 2021\)](#)

10.5.13 [Amendment to Software Service Agreement dated January 28, 2021, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended December 31, 2021\)](#)

10.5.14 [Amendment to Software Service Agreement dated February 23, 2021, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended March 31, 2021\)](#)

10.5.15 [Amendment to Software Service Agreement dated March 8, 2021, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended June 30, 2021\)](#)

10.5.16 [Amendment to Software Service Agreement dated April 6, 2021, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended September 30, 2021\)](#)

10.5.17 [Amendment to Software Service Agreement dated May 21, 2021, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended December 31, 2021\)](#)

10.5.18 [Amendment to Software Service Agreement dated June 11, 2021, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended March 31, 2022\)](#)

10.5.19 [Amendment to Software Service Agreement dated July 23, 2021, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended June 30, 2022\)](#)

10.5.20 [Amendment to Software Service Agreement dated November 4, 2021, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended September 30, 2021\)](#)

10.5.21 [Amendment to Software Service Agreement dated October 4, 2022, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended December 31, 2021\)](#)

10.5.22 [Amendment to Software Service Agreement dated October 16, 2022, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended March 31, 2022\)](#)

10.5.23 [Amendment to Software Service Agreement dated November 3, 2022, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended June 30, 2022\)](#)

10.5.24 [Amendment to Software Service Agreement dated November 15, 2022, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended September 30, 2022\)](#)

10.5.25 [Amendment to Software Service Agreement dated January 30, 2023, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended December 31, 2022\)](#)

10.5.26 [Amendment to Software Service Agreement dated March 28, 2023, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended March 31, 2023\)](#)

10.5.27 [Amendment to Software Service Agreement dated June 5, 2023, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended June 30, 2023\)](#)

10.5.28 [Amendment to Software Service Agreement dated June 5, 2023, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended September 30, 2023\)](#)

10.5.29 [Amendment to Software Service Agreement dated June 8, 2023, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended December 31, 2023\)](#)

10.5.30 [Amendment to Software Service Agreement dated July 14, 2023, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended March 31, 2024\)](#)

10.5.31 [Amendment to Software Service Agreement dated July 21, 2023, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended June 30, 2024\)](#)

10.5.32 [Amendment to Software Service Agreement dated September 12, 2023, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended September 30, 2023\)](#)

10.5.33 [Amendment to Software Service Agreement dated November 2, 2023, between Live Oak Banking Company and nCino, Inc. \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 10-Q for the quarter ended December 31, 2023\)](#)

10.6.1 [Form of Stock Option Award Agreement for executive officers under the 2015 Omnibus Stock Incentive Plan \(incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on January 12, 2018\)](#)

10.6.2 [Form of RSU Award Agreement for certain executive officers \(incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on January 12, 2018\)](#)

10.6.3 [Form of RSU Award Agreement for certain executive officers \(incorporated by reference to Exhibit 99.2 of the current report on Form 8-K filed on January 12, 2018\)](#)

10.6.4 [RSU Award Agreement for M. Huntley Garriott, Jr. \(incorporated by reference to Exhibit 99.3 of the current report on Form 8-K filed on January 12, 2018\)](#)

10.6.5 [RSU Award Agreement for William C. Losch, III \(incorporated by reference to Exhibit 10.2 of the quarterly report on Form 10-Q filed on November 1, 2018\)](#)

10.6.6 [Form of RSU Award Agreement for certain executive officers \(incorporated by reference to Exhibit 99.1 of the current report on Form 8-K filed on January 12, 2018\)](#)

10.6.7 [Form of 2022-2023 RSU Award Agreement for non-employee directors \(incorporated by reference to Exhibit 10.1 of the quarterly report on Form 8-K filed on January 12, 2018\)](#)

10.6.8

10.6.8

10.6.9

[RSU Award Agreement for non-employee director Yousef A. Valine* #](#)

10.6.10 [Form of RSU Award Agreement for certain executive officers \(incorporated by reference to Exhibit 99.1 of the current report on Form 10-Q filed on August 3, 2022\)](#)

10.6.9

10.6.11 10.6.10

[Member Interest Letters, dated May 9, 2019 and September 7, 2019, as revised on February 14, 2022, from Canapi Ventures LLC, to the Neil L. Underwood Revocable Trust, quarterly current report on Form 10-Q filed on August 3, 2022 \(February 16, 2024\) #](#)

10.6.12

[Member Interest Letter, dated May 5, 2022, from Canapi Ventures LOB SLP II, LLC, to the Neil L. Underwood Revocable Trust](#)

10.6.13

[Member Interest Letter, dated September 6, 2022, from Canapi Ventures LOB SLP II, LLC, to the Neil L. Underwood Revocable Trust](#)

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**](#)

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101.INS

Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tag is not present)

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

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.

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

Date: **February 23, 2023** **February 22, 2024**

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 ca

/s/ James S. Mahan III

James S. Mahan III

Chairman and Chief Executive Officer
(Principal Executive Officer)

/s/ William C. Losch III Walter J. Phifer

William C. Losch III Walter J. Phifer

Chief Financial Officer
(Principal Financial Officer)

/s/ J. Wesley Sutherland

J. Wesley Sutherland

Chief Accounting Officer
(Principal Accounting Officer)

/s/ William L. Williams III

William L. Williams III

Vice Chairman of the Board of Directors

/s/ Tonya W. Bradford

Tonya W. Bradford

Director

/s/ William H. Cameron

William H. Cameron

Director

/s/ Casey S. Crawford

Casey S. Crawford

Director

/s/ Diane B. Glossman

Diane B. Glossman

Director

/s/ Glen F. Hoffsis

Glen F. Hoffsis
Director

/s/ David G. Lucht

David G. Lucht
Director

/s/ Miltom E. Petty

Miltom E. Petty
Director

/s/ Neil L. Underwood

Neil L. Underwood
Director

/s/ Yousef A. Valine

Yousef A. Valine
Director

Exhibit 10.5.23

This Amendment ("Amendment")
AMENDED AND RESTATED

WHEREAS, Live Oak Bancshares, Inc. (the "Company") is effective as of, maintains the date that both parties have executed this Amendment, as amended (the "Agreement" "Plan");

WHEREAS, pursuant to Section 16(a) of the Plan, the board of directors of the Company (the "Board") by and between nCino OpCo, Inc. have certain cases to the meanings assigned approval of the Company's shareholders;

WHEREAS, the Board deems it to them be in the Agreement best interests of the Company to amend the Plan to revise the definition of

In exchange for **WHEREAS**, the consideration detailed herein, and other good and valuable consideration, Board has determined to amend the Plan in accordance with the provisions of Section 16(a) of the Plan, as amended, and the Plan is effective as of the date that both parties have executed this Amendment, as amended (the "Agreement" "Plan");

NOW, THEREFORE, in accordance with the provisions of Section 16(a) of the Plan, the Plan is acknowledged by both parties, hereto, as amended.

1. Subscriber hereby purchases access and use rights for the additional Subscription Services set forth in Exhibit A below (the "Additional Subscription Services") as of the date that both parties have executed this Amendment, as amended (the "Amendment Effective Date"). The initial invoice for the Additional Subscription Services will be issued as of the date the Additional Subscription Services are first provided to Subscriber on each annual invoice date for the remainder of the Term of the Agreement. The term for the Additional Subscription Services will be amended accordingly to cover the cost of the Additional Subscription Services.

Exhibit A

Product(s)*	Features
nCino Standard Seat	<ul style="list-style-type: none">• Loan Origination• Portfolio Management• Dashboards & Reports• Workflow• Document Generation Engine (Forms)• Document Management

*The specific features, functionality(kk) **"Retirement"** means the termination by the Grantee of his or her Continuous Service where (i) the Products are set forth in Grantee's whole years of age plus the Documentation. The Subscription Services include Grantee's whole years of data and file storage capacity. Additional storage capacity can be purchased if needed. the Plan and/or any Award.

2. Except as set forth in this Amendment, **herein amended**, the Agreement is unaffected terms and provisions of the Plan shall. Agreement must be set forth in writing in a document executed by both parties. **date**.

IN WITNESS WHEREOF, the parties hereto have executed this **undersigned officer of the Company attests that the foregoing Amendment** respective signatures. **November 14, 2023**.

nCino

Signature: /s/ David Rudow
By:

Name: David Rudow **Name:** Renato Derraik
James S. Mahan III
Chairman and Chief Financial Executive Officer
Title:

Date: 11/3/2022	Date: 11/3/2022
---------------------------	------------------------

Exhibit 10.5.24

This Amendment ("Amendment") is effective as of the date that both parties have executed this Amendment (the "Amendment Effective Date") and ("Subscriber"). Capitalized terms used but not otherwise defined in this Amendment shall have the meanings assigned to them in the Agreement.

In exchange for the consideration detailed herein, and other good and valuable consideration, the receipt of which is acknowledged by both parties,

1. Subscriber hereby purchases access and use rights for the additional Subscription Services set forth in Exhibit A below (the "Additional Subscription Services"). The Additional Subscription Services will activate in Subscriber's Org ID 00DG000000h5Do. The Additional Subscription Services are activated, pro-rated for the initial year of activation, as applicable. Thereafter, Subscriber will be invoiced in Subscriber's Org ID 00DG000000h5Do. The term for the Additional Subscription Services will run co-terminously with the Term of Subscriber's Org ID 00DG000000h5Do.

Product	Features
File Storage*	<ul style="list-style-type: none">• 10GB File Storage per Block

*Data and File Storage Annual Subscription Fees are excluded from Fees that are billed to Subscriber based on a percentage of the Total Annual Subscription Fees.

2. Except as set forth in this Amendment, the Agreement is unaffected and shall continue in full force and effect in accordance with its terms. Amendment shall have the meaning assigned to them in the Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment on the dates shown below their respective signatures.

nCino
Signature: /s/ Charles Ragland
Name: Charles Ragland
Title: Global Sales Operatoins
Date: 11/15/2022

This Amendment ("Amendment") is effective as of the date that both parties have executed this Amendment (the "Amendment Effective Date") a ("Subscriber"). Capitalized terms used but not otherwise defined in this Amendment shall have the meanings assigned to them in the Agreement.

In exchange for the consideration detailed herein, and other good and valuable consideration the receipt of which is acknowledged by both parties, the undersigned, for and in consideration of the promises and covenants contained in this Agreement, does hereby agree:

1. Subscriber wishes to transfer eighty (80) twenty (20) Premium Operators (collectively, the "Transferred Subscription Services") from Org ID Date (the actual date of transfer, the "Transfer Date"). Accordingly, commencing on the Transfer Date: (i) Attachment A to the Agreement w Subscription Services in Subscriber's Org ID 00D3k00000uAXY. Any Fees in Subscriber's Org ID 00D3k00000uAXY that are billed to Subs acknowledges that a single user subscription cannot access more than one org (i.e., if a Subscriber employee requires access to both the 0DG01
2. Subscriber wishes to make changes to the Subscription Services as set forth in Exhibit B A below, which are to reduce certain Subscription S "Additional Subscription Services", and collectively with the Reduced Subscription Services, the "Amended Subscription Services"). Accordingly, Services as set forth in Exhibit A, and (ii) Subscriber will (a) no longer have access to the Reduced Subscription Services, in Subscriber's Org practicable following the Activation Schedule set forth below. Transfer Date. The initial invoice for the Additional Subscription Services will be its amount of the Fees for the Additional Subscription Services on each annual invoice date for the remainder of the Term of the Agreement. TI ID00D3k000000uAXY ID 00D3k000000uAXY that are billed to Subscriber based on a percentage of the Total Annual Subscription Fees will be a

The Subscription Services in Subscriber's Org ID ID00D3k000000uAXY 00D3k000000uAXY are hereby amended as follows following the migration

Product	Quantity
nCino Premium Seat	-80 Operators -20 Operators
nCino Premium Seat FSC	+83 Operators 20 Operators
nCino Standard Seat	+179 Operators

Activation Schedule

Operators in Subscriber's Org ID ID00D3k00000uAXY shown in Exhibit A above shall be activated on the Activation Dates listed in the Activation Schedule below, starting on the Initial Activation Date, and then as of the anniversary of the Initial Activation Date thereafter.

Product	As Soon As Practicable
nCino Standard Seat	112
nCino Premium Seat FSC	40

3. Except as set forth in this Amendment, the Agreement is unaffected and shall continue in full force and effect in accordance with its terms. Any further action required by the parties hereto to effectuate the changes set forth in this Amendment shall be taken in accordance with the terms of the Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment on the dates shown below their respective signatures.

nCino
Signature: /s/ Gregory D. Orenstein /s/ Charles Ragland
Name: Gregory D. Orenstein Charles Ragland
Title: Chief Financial Officer Global Revenue Operations
Date: 1/30/11/2/2023

Exhibit 10.6.9

2015 OMNIBUS STOCK AGREEMENT

RESTRICTED STOCK UNIT AWARD AGREEMENT

THIS RESTRICTED STOCK UNIT AWARD AGREEMENT is made and entered into effective as of November 14, 2022 (the "Date of Award").

[DATE]

[Name]

[Email Address]

Re: Tax Withholding for RSU Vesting

Dear [Name], by and between LIVE OAK BANCSHARES, INC., a North Carolina corporation (the "Company"), and YOUSEF A. VALINEH, an employee of the Company.

As you know, you were previously granted one or more awards of restricted stock units payable as described below in shares of Common Stock.

Under your RSU Award Agreement(s), when your RSUs vest, Live Oak Bancshares, Inc. (the "Company") will withhold a number of shares in accordance with the terms of your RSU Award Agreement(s). The withholding of shares for supplemental compensation like RSU vesting is at a 22% withholding rate. For those with high taxable income, this relatively low tax withholding rate may result in a tax liability.

To help mitigate this impact going forward, instead of withholding at a 22% rate, the Company will withhold at the maximum applicable federal rate. The Company will direct the Company to apply this higher tax withholding rate. This change will apply to both your existing RSUs and any future RSU awards you may receive. Your tax situation is different, and the "Company cannot provide you with tax advice, nor can it guarantee the ultimate tax impact to you, but the Company will provide you with information to help you make an informed decision."

Plan"). Capitalized terms not explicitly defined Please sign below to confirm your understanding of, and agreement to, the changes described to them under applicable RSU Award Agreement(s) and the Plan.

NOW, THEREFORE, in consideration of the foregoing and Grantee's continued provision of valuable services as a director of the Company,

1. Grant of Units. Effective as of the Date of Grant, the Company grants the Grantee 1,503 Restricted Stock Units (the "Units"). The Units will vest to the Grantee pursuant to this Agreement when and if such Unit becomes vested in accordance with this Agreement.

2. Condition to Grant of Units. This award of Units is conditioned upon Grantee's electronic acceptance of this Agreement through the online portal within the Acceptance Period. If the Grantee fails to accept this Agreement through such online portal within the Acceptance Period, then this Agreement is void and the Units will not vest.

3. Vesting. The Units are unvested when granted and will vest November 13, 2023, subject to Grantee's provision of Continuous Service through November 13, 2023. The Units will vest if there is a Corporate Transaction provided that Grantee provides Continuous Service to the Company through the date of such Corporate Transaction or Disability.

4. Effect of Termination of Continuous Service. Except as provided in Section 3 in connection with the termination of Grantee's employment, the Units will be forfeited immediately, automatically, and without consideration.

5. Delivery of Shares to Settle Units. When Units become vested as provided in Section 3, the vested Units will be settled by delivery of Shares.

(a) Delivery of the Shares will be made as soon as practicable after the date on which the Units vest, provided that the Grantee will not be required to wait longer than two and one-half months for delivery of the Shares.

Accepted and agreed:

Signature

Print Name

(b) Subject to the conditions described herein, as soon as practicable after the date on which the Units vest, the Company will deliver the Shares deliverable pursuant to this Agreement and instead document the Grantee's interest in the Shares by registering such Shares with the appropriate securities exchange or other entity.

(c) No Shares will be issued pursuant to this Agreement unless and until all then-applicable requirements imposed by law or regulation are satisfied, including, without limitation, the requirements of the Securities Act of 1933, as amended, under the requirements of any exchange or market on which the Shares may be listed, have been fully met, and the Company may condition the issuance of Shares pursuant to this Agreement on the Grantee's consent to such conditions as the Company deems advisable, including, without limitation, restrictions under the Securities Act of 1933, as amended, under the requirements of any exchange or market on which the Shares may be listed.

6. Rights as a Shareholder. The Units represent a right to payment from the Company if the conditions of the Agreement are met. The Units will not entitle the Grantee to be a stockholder of the Company with respect to the Units prior to such delivery, but Grantee will have all rights associated with the ownership of the Units after such delivery.

7. **Non-Transferability of the Units.** The Units and the right to payment under this Agreement are not transferable, and may not be sold, assigned, transferred, or otherwise disposed of by the Plan. Any purported transfer of the Units or the right to payment under this Agreement not in compliance with the preceding sentence is void.

8. **Tax Consequences**. Grantee acknowledges that Grantee understands the federal, state, local, and foreign tax consequences of the representations of the Company or any of its agents in connection with such tax consequences. Grantee understands that Grantee (and Units (or otherwise in connection with this Agreement).

9. **Withholding Obligations.** As a condition to delivery of the Shares, the Grantee hereby authorizes the Company to withhold (determined) equal to the federal, state, local and foreign tax withholding obligations of the Company or a Related Entity, if any. In the event of any conflict between the requirements of the Company and any applicable law, rule or regulation of any governmental authority or any regulatory agency having jurisdiction over the Company, or the rules of any exchanges upon which the Shares may be listed, then the Company shall be entitled to rely on the requirements of the Plan, including but not limited to requiring Grantee to tender a cash payment or withholding from salary or other compensation.

10. Application of Section 409A of the Code. The parties intend that the delivery of Shares in respect of the Units provided thereunder and any state law of similar effect (collectively, “**Section 409A**”) provided under Treasury Regulations Section 1.409A-1(b) exempt, the delivery of Shares in respect of the Units provided under this Agreement will be conducted, and this Agreement will be construed so that each installment of any payments provided for in this Agreement is a separate “payment” for purposes of Section 409A. To the extent that the requirements of Section 409A, and (b) Grantee is a “specified employee” within the meaning of Section 409A, then solely to the extent until the date that is six months following the Grantee’s termination of Continuous Service (or, if earlier, the date of death of the Grantee) thereafter. The Company makes no representations to Grantee regarding the compliance of this Agreement or the Units with Section 409A, grant or vesting of the Units or the delivery of the Shares hereunder.

11. **Adjustments.** All references to the number of Units will be appropriately adjusted to reflect any stock split, stock dividend, or other similar transaction.

12. **Electronic Delivery.** Grantee hereby consents to receive documents related to the Units and any other Awards granted under third party designated by the Company, and such consent shall remain in effect throughout until withdrawn in writing by Grantee.

13. **Data Privacy.** Grantee acknowledges that the Company holds certain personal information about him/her, including, but not limited to, his/her name, address, telephone number, email address, social security number, date of birth, gender, marital status, dependents, employment information, and other information necessary to administer the Plan. The Company may collect, use, process, disclose, transfer, store, and retain such personal data for the purpose of implementing, administering, and managing Grantee's participation in the Plan. Grantee consents to the collection, use, processing, disclosure, transfer, storage, and retention of such personal data by the Company in accordance with the Company's privacy policy and the applicable laws and regulations.

14. **Binding Effect.** This Agreement is binding upon and inures to the benefit of Grantee and Grantee's heirs, executors, and per

15. **Counterparts; Electronic Signatures.** This Agreement may be executed in one or more counterparts, each of which will contain electronic signatures, and that electronic signatures (whether digital or encrypted) of the parties included in this Agreement are intended

electronic sound, symbol, or process attached to or logically associated with a record and executed and adopted by a party with the intent to further a particular purpose or to verify the record.

16. **Notices.** Any notice, demand or request required or permitted to be given pursuant to the terms of this Agreement must, after deposit in the U.S. mail, first class, certified or registered, return receipt requested, with postage prepaid, in each case addressed to

17. Choice of Law; Venue. This Agreement shall be construed and enforced in accordance with and governed by the laws of this Agreement will be brought exclusively in any state or federal court in New Hanover County, North Carolina. Each party (i) consents any proceeding arising out of or relating to this Agreement in any other court.

18. **Modification of Agreement; Waiver.** This Agreement may be modified, amended, suspended, or terminated, and any terms hereunder will constitute a waiver with respect to any subsequent occurrence or other transaction hereunder or of any other provision hereunder.

19. **Severability.** The provisions of this Agreement are severable, and if any one or more provisions are determined to be illegal,

20. Entire Agreement. This Agreement, along with the Plan, constitutes and embodies the entire understanding and agreement relating to the matters addressed herein.

21. **Grantee's Acknowledgements.** Grantee hereby acknowledges receipt of a copy of the Plan and the Company's prospectus. The Units are subject to all the provisions of the Plan, the provisions of which are hereby made a part of this Agreement, and are further conflict between the provisions of this Agreement and those of the Plan, the provisions of the Plan shall control.

IN WITNESS WHEREOF, the Company has caused this Agreement to be executed by its duly authorized officer, and the Grantee has executed this Agreement as of the date first above written.

COMPANY:

Live Oak Bancshares, Inc.

By:

Name: Courtney C. Spencer

Title: Chief Experience Officer

Address: 1741 Tiburon Drive
Wilmington, NC 28403

GRANTEE:

[ELECTRONIC ACCEPTANCE]

Subsidiary

(a North)

(a North)

(a

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements on Forms S-3 and S-8 (Nos. 333-273714, 333-269263, consolidated financial statements of Live Oak Bancshares, Inc. and the effectiveness of internal control over financial reporting, included
/s/ FORVIS, LLP (Formerly, Dixon Hughes Goodman LLP)

Greenville, North Carolina

February 23, 2023 22, 2024

Cert
Pursuant to S

I, James S. Mahan III, certify that:

1. I have reviewed this Annual Report on Form 10-K of Live Oak Bancshares, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statement not misleading in light of the circumstances in which such statement was made;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition of the registrant as of the end of the period covered by this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 13a-15) and we have:

 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information required to be disclosed by the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Exchange Act's rules and forms; and
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of such controls and procedures, as of the end of the period covered by this report; such conclusions are based on our evaluation in light of the objectives of such controls and procedures, and such evaluation included whether the disclosure controls and procedures evaluate the registrant's internal control over financial reporting; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter, and any change in the registrant's internal control over financial reporting that has materially affected or is reasonably likely to materially affect the registrant's internal control over financial reporting;

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's audited financial statements:

 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to render the registrant's financial statements not fairly presented in accordance with generally accepted accounting principles;
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 23, 2023 February 22, 2024

Cer

I, William C. Losch III, Walter J. Phifer, certify that:

1. I have reviewed this Annual Report on Form 10-K of Live Oak Bancshares, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, in this report, not misleading;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition and results of operations of the registrant as of, and for, the periods presented;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) and we have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information required to be disclosed by the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Exchange Act rules and forms; and
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of such controls and procedures, as of the end of the period covered by this report, based on such evaluation;
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's audited financial statements the following:
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to render the registrant's financial statements not fairly presented in accordance with generally accepted accounting principles;
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: **February 23, 2023** **February 22, 2024**

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), I, William C. Losch III, certify that:

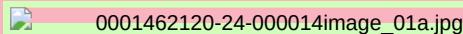
The Annual Report on Form 10-K for the year ended **December 31, 2022** **December 31, 2023** (the "Form 10-K") of the Company fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: **February 23, 2023** **February 22, 2024**

Date: **February 23, 2023** **February 22, 2024**

This certification is being furnished solely to accompany the Form 10-K pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906, and shall not be incorporated by reference into any filing of the registrant under the Securities Act of 1933, as amended, or the Exchange Act, in such filing.

A signed original of this written statement required by section 906 of the Sarbanes-Oxley Act of 2002 has been provided to the Company by [REDACTED].



Introduction

The Board of Directors (the "**Board**") of Live Oak Bancshares, Inc. (the "**Company**") believes that it is in the best interests of the Company and its shareholders to implement a Clawback Policy (the "**Policy**") which provides for the recoupment of certain executive compensation in the event of an accounting restatement resulting from material non-compliance with the Sarbanes-Oxley Act ("the **Act**").

Administration

This Policy shall be administered by the Board or, if so designated by the Board, the Compensation Committee, in which case references to the Board shall mean the Compensation Committee.

Covered Executives

This Policy applies to the Company's current and former executive officers, as determined by the Board in accordance with Section 10D of the Exchange Act and the rules and regulations thereunder ("Covered Executives").

Recoupment; Accounting Restatement

In the event the Company is required to prepare an accounting restatement of its financial statements due to the Company's material misstatement of its financial statements that is material to the previously issued financial statements, or that would result in a material misstatement if the restatement were made, any Incentive Compensation (as defined below) received by any Covered Executive during the three completed fiscal years immediately preceding the restatement shall be recouped.

Incentive Compensation

For purposes of this Policy, "**Incentive Compensation**" means any of the following; provided that such compensation is granted, earned, or vested based wholly or in part on the achievement of financial performance measures:

- Annual bonuses and other short- and long-term cash incentives.
- Incentive stock options.
- Non statutory stock options.
- Stock appreciation rights.
- Dividend equivalent rights.
- Restricted stock awards.
- Restricted stock unit awards.

Financial reporting measures include:

- Company stock price.
- Total shareholder return.
- Revenues.

- Net income.
- Earnings measures such as earnings per share.
- Book value per share.
- Pre-provision net revenue.

This Policy applies to all Incentive Compensation received by a Covered Executive (a) after beginning service as a Covered Executive; on a national securities exchange or a national securities association; and (d) during the three completed fiscal years immediately preceding the Company's fiscal year within or immediately following those three completed fiscal years, provided, however, that a transition period begins in the fiscal year. The Company's obligation to recover erroneously awarded compensation is not dependent on if or when the restated financial statements are filed.

Excess Incentive Compensation: Amount Subject to Recovery

The amount to be recovered will be the excess of the Incentive Compensation paid to the Covered Executive based on the erroneous accounting treatment in accordance with Rule 10D-1 of the Exchange Act and the listing standards of the national securities exchange on which the Company's stock is listed.

If the Board cannot determine the amount of excess Incentive Compensation received by the Covered Executive directly from the information available, the Board may make a reasonable estimate.

For purposes of determining the relevant recovery period, the date that the Company is required to prepare an accounting restatement is the date that the Company is required to file its annual report on Form 10-K, if the restatement is required, concludes, or reasonably should have concluded, that the Company is required to prepare an accounting restatement; or (b) the date that the Company is required to file its quarterly report on Form 10-Q, if the restatement is required, concludes, or reasonably should have concluded, that the Company is required to prepare an accounting restatement.

Method of Recoupment

The Board will determine, in its sole discretion, the method for recouping Incentive Compensation hereunder, which may include, without limitation:

- requiring reimbursement of cash Incentive Compensation previously paid;
- seeking recovery of any gain realized on the vesting, exercise, settlement, sale, transfer, or other disposition of any equity-based compensation previously awarded;
- canceling outstanding vested or unvested equity awards; and/or
- taking any other remedial and recovery action permitted by law, as determined by the Board.

No Indemnification

The Company shall not indemnify any Covered Executives against the loss of any incorrectly awarded Incentive Compensation.

Interpretation

The Board is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate, or advisable for the proper administration of this Policy, including, but not limited to, the application of this Policy to any Incentive Compensation that is received by Covered Executives under this Policy.

Effective Date

This Policy shall be effective as of the date it is adopted by the Board (the "Effective Date") and shall apply to Incentive Compensation that is received by Covered Executives under this Policy. Incentive Compensation that is received by Covered Executives under this Policy before the Effective Date, but that is attained, even if the payment or grant of the Incentive Compensation occurs after the end of that period, shall not be subject to recovery under this Policy.

Amendment; Termination

The Board may amend this Policy from time to time in its discretion and may terminate this Policy at any time.

Other Recoupment Rights

The Board intends that this Policy will be applied to the fullest extent of the law. The Board may require that any employment agreement or similar agreement between the Company and a Covered Executive to agree to abide by the terms of this Policy. Any right of recoupment under this Policy is in addition to, and not in lieu of, any agreement, or similar agreement and any other legal remedies available to the Company.

Impracticability

The Board shall recover any excess Incentive Compensation in accordance with this Policy unless such recovery would be impracticable or illegal under applicable law or if the Company's securities are listed.

Successors

This Policy shall be binding and enforceable against all Covered Executives and their beneficiaries, heirs, executors, administrators, or legal representatives.

Approved:

DISCLAIMER

THE INFORMATION CONTAINED IN THE REFINITIV CORPORATE DISCLOSURES DELTA REPORT™ IS A COMPARISON OF TEXT AND THE COMPARISON DATA AND TABLES. IN NO WAY DOES REFINITIV OR THE APPLICABLE COMPANY ASSUME ANY LIABILITY FOR THE INFORMATION CONTAINED IN THE REPORT. INVESTORS ARE ADVISED TO REVIEW THE APPLICABLE COMPANY'S ACTUAL SEC FILINGS BEFORE MAKING ANY INVESTMENT OR VOTING DECISIONS.

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