



ANNUAL SHAREHOLDERS' MEETING

May 2024

Safe Harbor Statement

This presentation contains certain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, that are based on current expectations, estimates and projections about the Company's and the Bank's industry, and management's beliefs and assumptions. Words such as anticipates, expects, intends, plans, believes, estimates and variations of such words and expressions are intended to identify forward-looking statements. Such statements are not a guarantee of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to forecast. Therefore, actual results may differ materially from those expressed or forecast in such forward-looking statements. The Company and Bank undertake no obligation to update publicly any forward-looking statements, whether as a result of new information or otherwise.

There are risks, uncertainties and other factors that could cause the actual results of the Company to differ materially from the results expressed or implied by such forward-looking statements. Information on factors that could affect the Company's business and results is discussed in the Company's periodic reports filed with the Securities and Exchange Commission, including in the section "Risk Factors". Forward looking statements speak only as of the date they are made. The Company undertakes no obligation to publicly update or revise forward looking information, whether as a result of new, updated information, future events or otherwise.

Agenda

- Call to Order – Kevin M. Sanvidge, Chairman
- Introduction of Officers, Directors and Director Nominees
- Secretary's Report
- Presentation of Proposals
- Executive Management Report to Shareholders
- Vote Report
- Adjournment

Board of Directors

	Director Since
Kevin M. Sanvidge, Chairman of the Board, Compliance Committee Chairman	2012
Sharon E. Brautigam, Vice Chairperson of the Board, Nominating and Governance Committee Chairperson	2004
Michelle M. DeBergalis, Compensation and Nominating and Governance Committee Member	2022
Kim C. Liddell, President and Chief Executive Officer	2023
John P. McGrath, Audit, Enterprise Risk and Loan Committee Member	2019
John (“Jack”) L. Mehlretter, Enterprise Risk Management Chairman	2016
Ronald J. Passafaro, Compensation Committee Chairman	2019
Ann M. Segarra, Audit Committee Chairperson	2023

Business of Annual Shareholders Meeting

1. Election of Directors:

Elect three Class One directors to serve until the 2027 annual meeting:

Class One Directors

- John P. McGrath
- Ronald J. Passafaro
- Kim C. Liddell

Elect one Class Two director to serve until the 2025 annual meeting:

Class Two Director

- Ann M. Segarra

Business of Annual Shareholders Meeting (Continued)

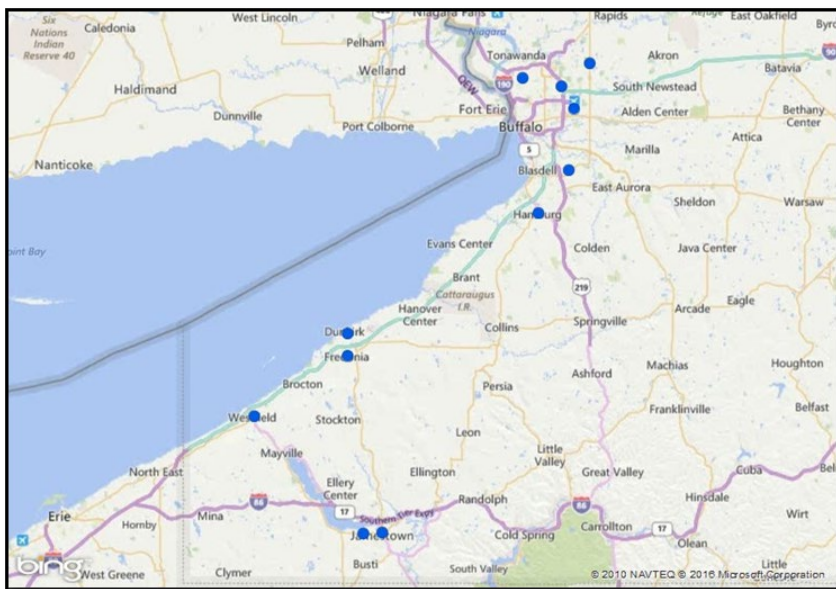
2. **Say on Pay Proposal:** A non-binding “say on pay” proposal to approve the compensation of the named executive officers.
3. **Appointment of Independent Registered Public Accounting Firm:** Ratify the appointment of Yount, Hyde & Barbour, P.C. as the Company’s independent registered public accounting firm for the year ending December 31, 2024.

Executive Management Presentation

Kim C. Liddell, President and Chief Executive Officer

LS LAKE SHORE BANCORP, INC.

An Overview of Lake Shore Bancorp, Inc.



- Lake Shore Bancorp, Inc. operates as a mid-tier, federally chartered savings and loan holding company for Lake Shore Savings Bank, a federally chartered, community-oriented financial institution headquartered in Dunkirk, New York, with a longstanding history of community banking since 1891
- Operates 11 full-service branch locations in two counties within Western New York
- Lake Shore ranks 3rd in deposit market share in Chautauque County with 5 branches; ranks 11th in Erie County with 6 branches
- Lake Shore, MHC and Lake Shore Bancorp, Inc. were organized in 2006 in connection with the Company's initial public stock offering. Lake Shore Bancorp, Inc trades on NASDAQ under the symbol LSBK

County	Market Rank	Branches	Company Deposits in Market (\$000)	Deposit Market Share (%)	2024 Population	2024 Median HH Income	'24-'29 Proj. Pop. Change	'24-'29 Proj. HH Income Change
Chautauque	#3	5	\$332,580	15.95%	124,976	\$50,836	-1.5%	6.9%
Erie	#11	6	\$254,942	0.37%	952,060	\$67,941	0.8%	7.0%
Total		11	\$587,522					
New York Franchise						\$58,258	-0.5%	6.9%
State of New York						\$81,057	-0.1%	7.8%
National						\$75,874	2.4%	10.1%

LS LAKE SHORE BANCORP, INC.

An Overview of Lake Shore Bancorp, Inc. (Continued)

Stockholder Information (NASDAQ: LSBK)			
Ownership		Market Information as of 5/21/2024	
Mutual Holding Company	64.0%	Total Market Cap (mm)	\$71.5
Institutional	9.1%	Minority Market Cap (mm)	\$25.8
Insider ⁽¹⁾	5.5%	Price Per Share	\$12.47
		Book Value Per Share ⁽²⁾	\$15.08
		Price / Tangible Book	82.7%
		Price / MRQ EPS	18.3x

(1) ESOP = 2.9% and total insider / director NEO = 2.6% (inclusive of stock options that can be exercised within 60 days of April 4, 2024 proxy)

(2) Book value per share is the same as tangible book value per share

Note: Ownership information based on Proxy Statement and S&P Capital IQ Pro as of 3/31/2024; market information as of 5/21/2024.

Financial Highlights

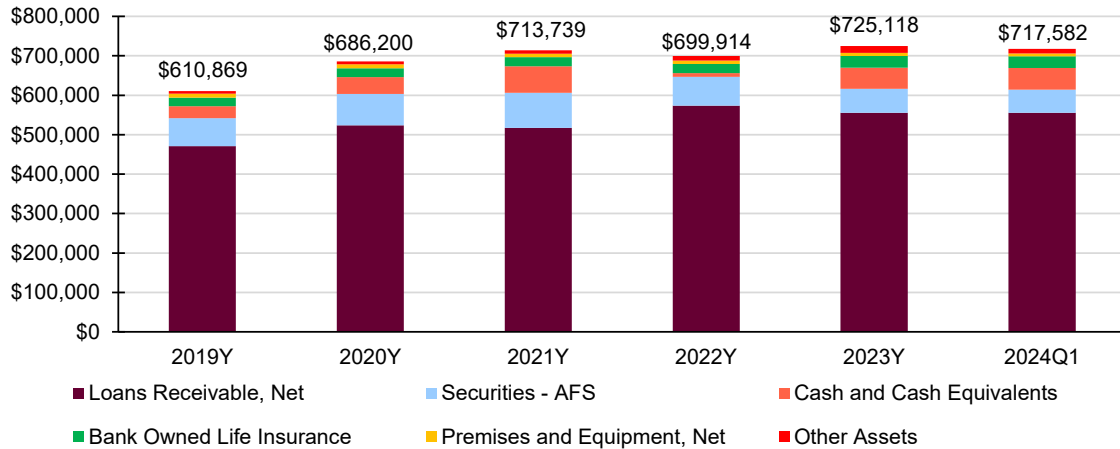
<i>Dollars in Thousands (except for per share amounts)</i>			
	2024 FQ1	2023 FQ1	QoQ Change
Assets	\$717,582	\$730,315	(1.7%)
Net Loans	\$555,455	\$574,408	(3.3%)
Deposits	\$594,704	\$595,207	(0.1%)
Net Income	\$1,014	\$1,684	(39.8%)
Basic Earnings Per Share	\$0.17	\$0.29	(41.4%)
Book Value Per Share	\$15.22	\$14.63	4.0%
ROAA	0.57%	0.94%	(39.4%)
Efficiency Ratio⁽¹⁾	86%	81%	6.2%
Non-Performing Assets	\$3,973	\$2,866	38.6%

<i>Dollars in Thousands (except for per share amounts)</i>			
	FY 2023Y	FY 2022Y	YoY Change
Assets	\$725,118	\$699,914	3.6%
Net Loans	\$555,828	\$573,537	(3.1%)
Deposits	\$590,924	\$570,119	3.6%
Net Income	\$4,820	\$5,708	(15.6%)
Basic Earnings Per Share	\$0.82	\$0.97	(15.5%)
Book Value Per Share	\$15.17	\$14.23	6.6%
ROAA	0.67%	0.82%	(18.3%)
Efficiency Ratio⁽¹⁾	81%	72%	12.5%
Non-Performing Assets	\$3,381	\$3,027	11.7%

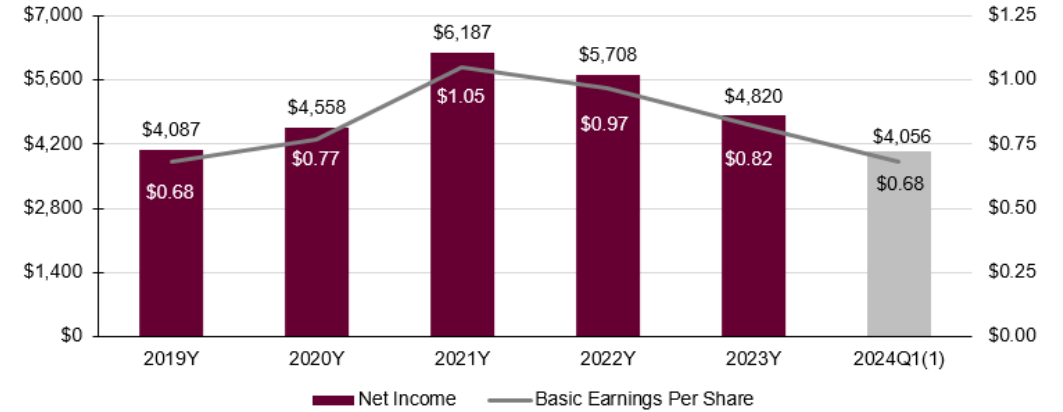
(1) Efficiency Ratio represents non-interest expense divided by the sum of net interest income and non-interest income
 Note: Financial data is presented for Lake Shore's Fiscal Year Ended December 31 for each respective year or for Lake Shore's quarter ended March 31 for each respective quarter

LS LAKE SHORE BANCORP, INC.

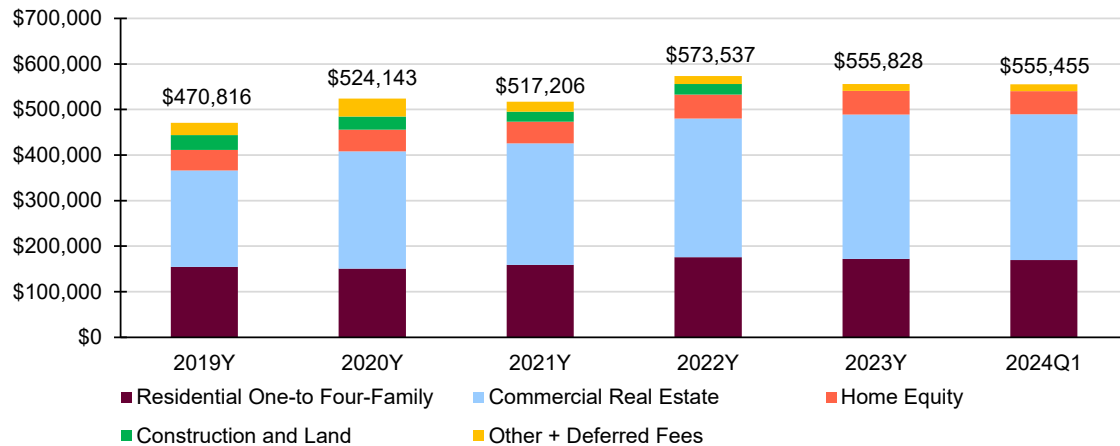
Total Assets



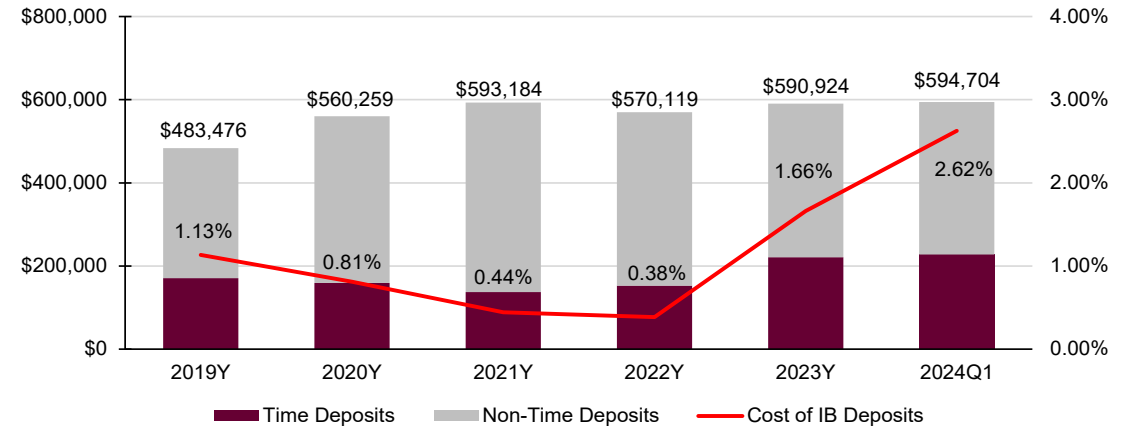
Net Income



Loan Portfolio, net⁽²⁾



Deposit Trends



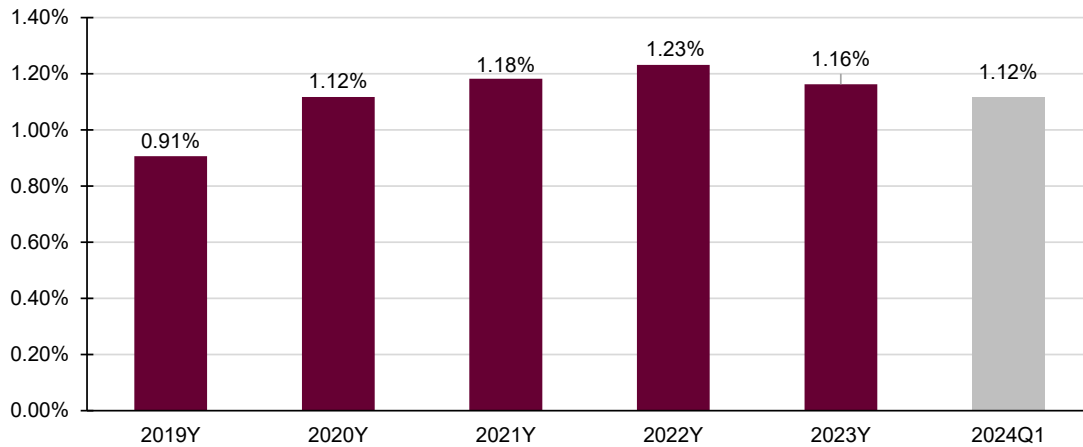
(1) Net income annualized for the quarter ended March 31, 2024

(2) Construction loans are included in one-to-for family and commercial loan categories beginning in 2023. Inclusive of deferred fees and costs and allowance for credit losses.

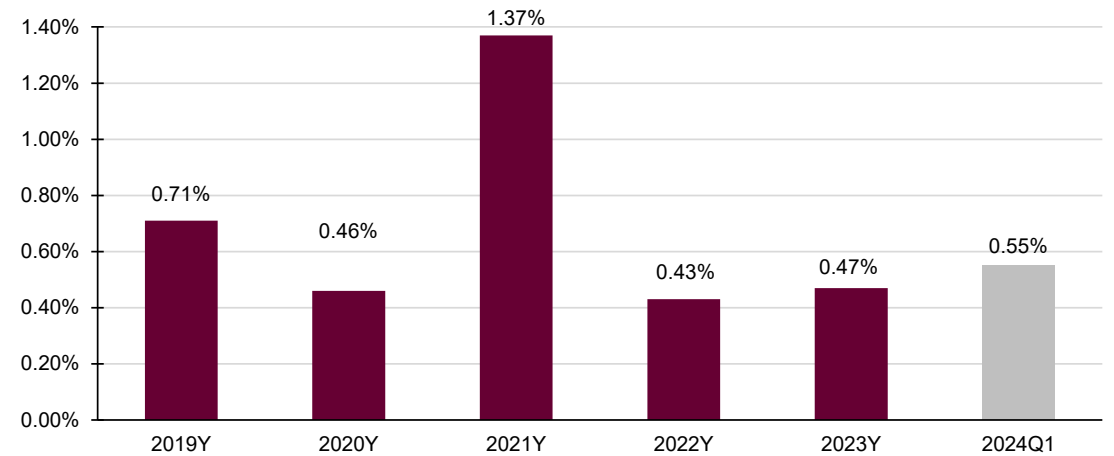
Note: Financial data is presented for Lake Shore's Fiscal Year Ended December 31 for each respective year and for the three months ended March 31, 2024; figures in \$000s except per share data

LS LAKE SHORE BANCORP, INC.

Loan Loss Reserves / Total Net Loans

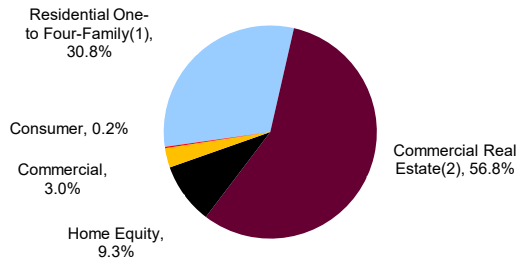


NPAs / Total Assets



Total Loan Portfolio Composition

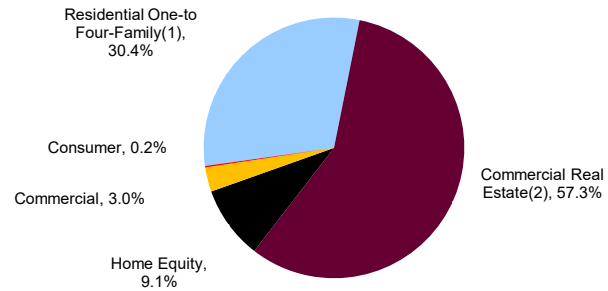
Total Loan Portfolio as of 12/31/2023



■ Residential One-to Four-Family(1)
 ■ Commercial Real Estate(2)
■ Home Equity
 ■ Commercial
■ Consumer

Total Loans: \$558,536

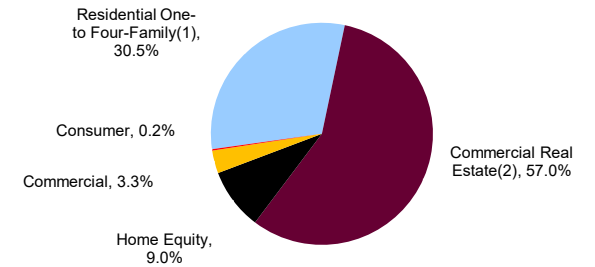
Total Loan Portfolio as of 3/31/2024



■ Residential One-to Four-Family(1)
 ■ Commercial Real Estate(2)
■ Home Equity
 ■ Commercial
■ Consumer

Total Loans: \$558,068

Total Loan Portfolio as of 3/31/2023



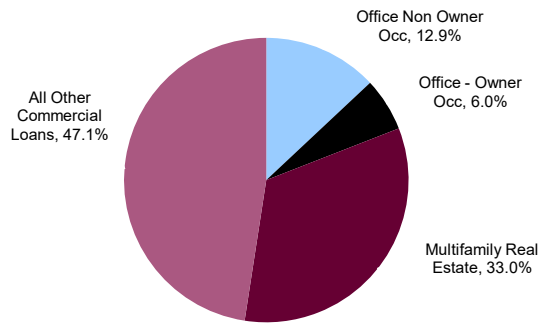
■ Residential One-to Four-Family(1)
 ■ Commercial Real Estate(2)
■ Home Equity
 ■ Commercial
■ Consumer

Total Loans: \$577,238

(1) Includes one-to-for family construction loans
 (2) Includes commercial construction loans

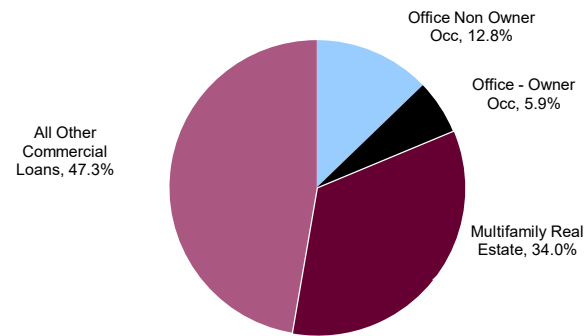
Commercial Loan Portfolio Concentration Analysis

Commercial Loan Portfolio Concentrations
as of 12/31/2023



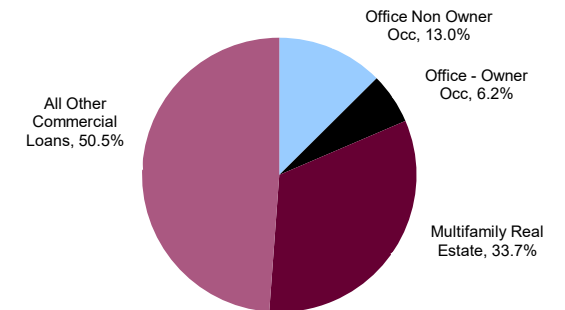
Total Commercial Loans: \$333,532

Commercial Loan Portfolio Concentrations
as of 3/31/2024



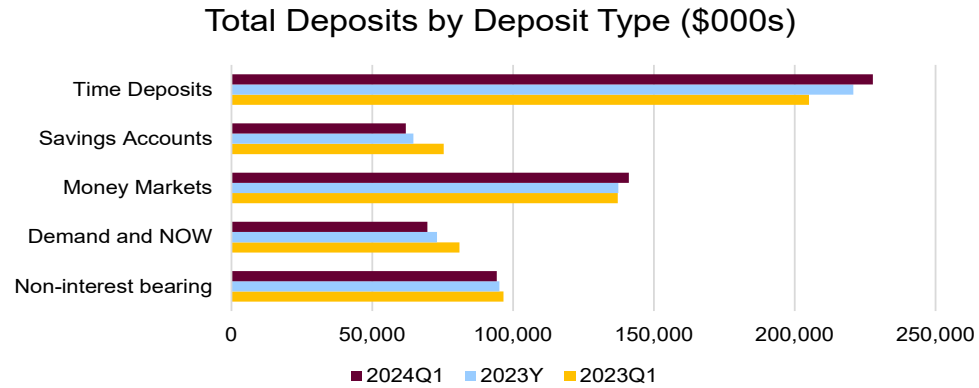
Total Commercial Loans: \$336,850

Commercial Loan Portfolio Concentrations
as of 3/31/2023

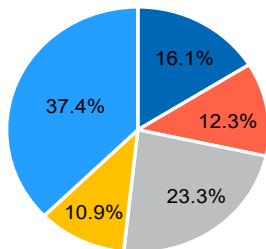


Total Commercial Loans: \$348,087

Change in Deposit Mix



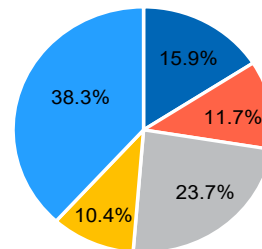
Deposit Mix as of 12/31/2023



■ Non-interest bearing ■ Demand and NOW ■ Money Markets
■ Savings Accounts ■ Time Deposits

Total Deposits: \$590,924

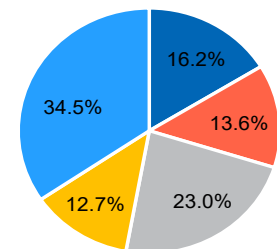
Deposit Mix as of 3/31/2024



■ Non-interest bearing ■ Demand and NOW ■ Money Markets
■ Savings Accounts ■ Time Deposits

Total Deposits: \$594,704

Deposit Mix as of 3/31/2023

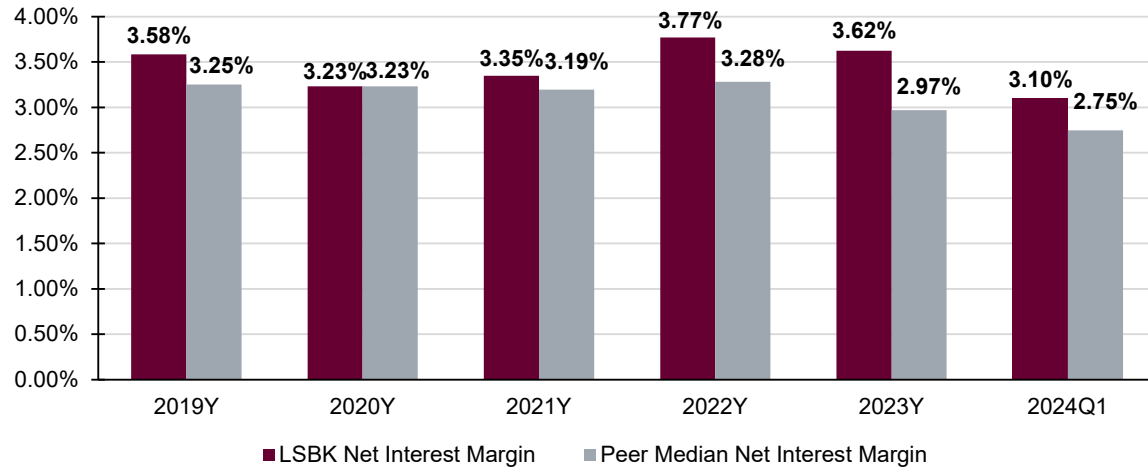


■ Non-interest bearing ■ Demand and NOW ■ Money Markets
■ Savings Accounts ■ Time Deposits

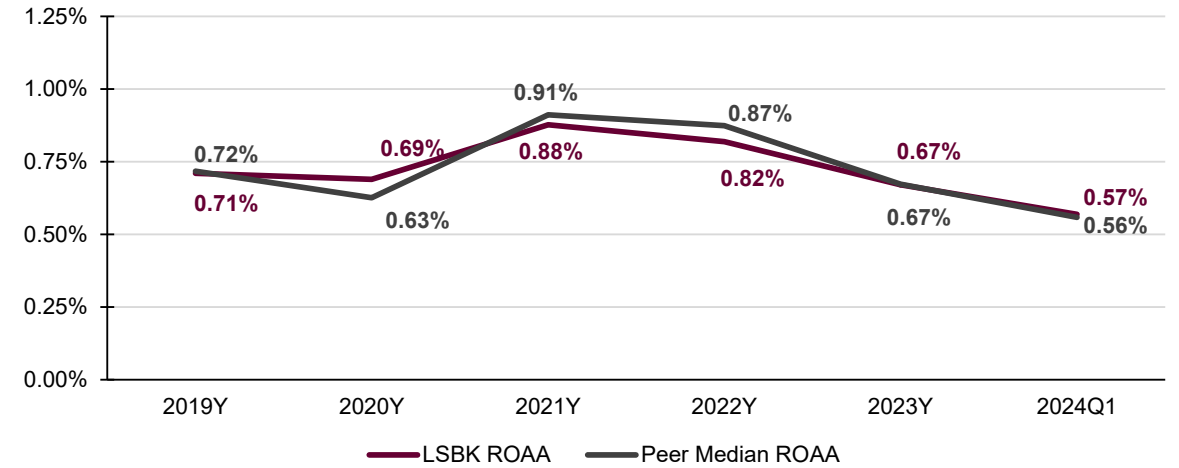
Total Deposits: \$595,207

LS LAKE SHORE BANCORP, INC.

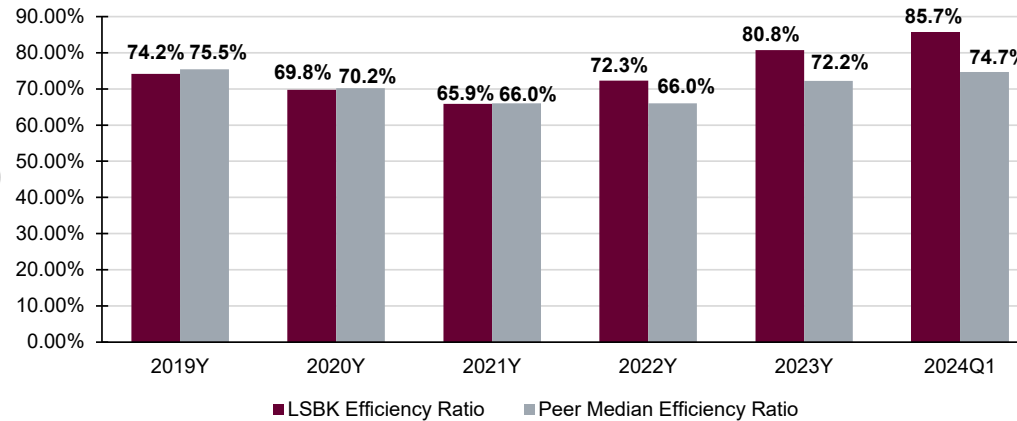
Net Interest Margin



Return on Average Assets



Efficiency Ratio⁽¹⁾



(1) Efficiency Ratio represents non-interest expense divided by the sum of net interest income and non-interest income

Note: Financial data is presented for Lake Shore's Fiscal Year Ended December 31 for each respective year and for the three months ended March 31, 2024; peer group detailed on page 21; peer data shown on a consolidated basis where available, otherwise shown at the bank-level

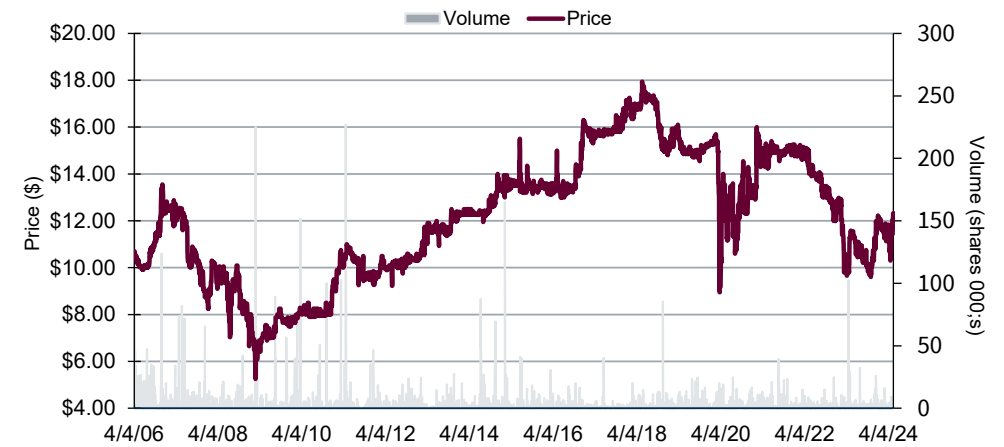
LS LAKE SHORE BANCORP, INC.

Creating Shareholder Value

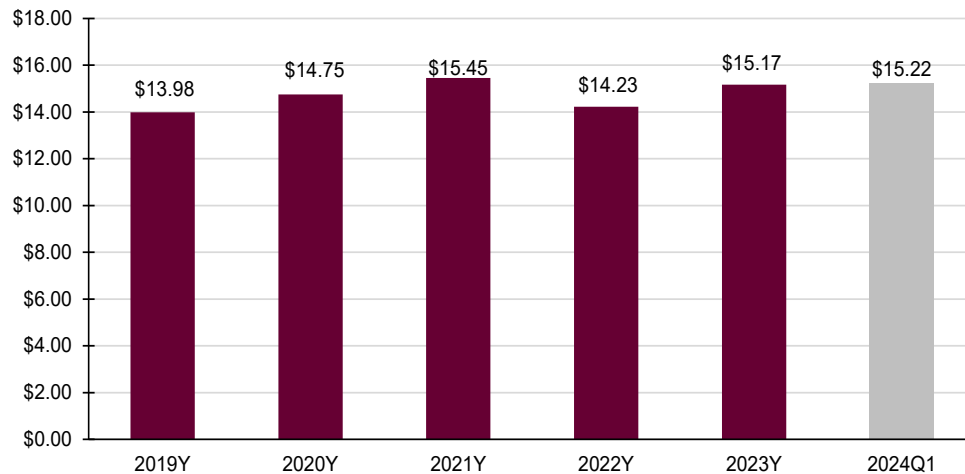
- High capital ratios enable organic growth without diluting shareholder value
- Elected the Community Bank Leverage Ratio effective January 1, 2020
- As of May 21, 2024, the implied annual dividend yield was 5.77%

	2019	2020	2021	2022	2023	2024Q1
Tier 1 / Community Bank Leverage Ratio	13.0%	11.8%	12.0%	12.4%	12.7%	12.9%
Equity / Total Assets	13.6%	12.5%	12.3%	11.6%	11.9%	12.1%
Common Shares Outstanding	5,924,339	5,823,786	5,692,410	5,705,225	5,686,288	5,684,784

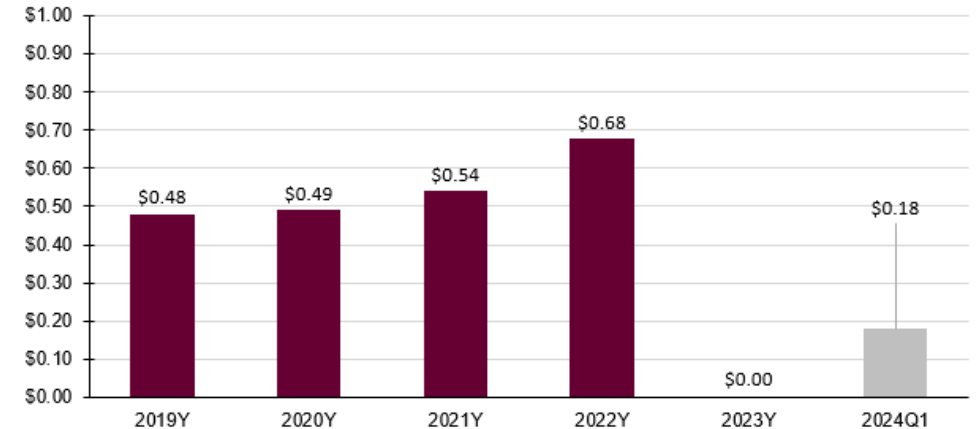
Since IPO



Tangible Book Value Per Share⁽¹⁾



Dividends Declared Per Share



(1) The tangible book value per share is the same as book value per share for each period presented

Note: Financial data is presented for Lake Shore's Fiscal Year Ended December 31 for each respective year and for three three months ended March 31, 2024; market information as of 5/15/24 Source: S&P Capital IQ Pro

Summary

- After 133 years in business, we continue to be a local bank that cares about its customers and communities.
- At Lake Shore Savings, that has always meant “Putting People First.”
- We will continue to put our customers, communities, and shareholders **FIRST**, as we adopt new technology, products, and services to meet the future needs of our customers.



QUESTIONS AND ANSWERS

LS Lake Shore Savings
Putting People First.™

Vote Report

Adjournment of Annual Shareholder' Meeting

Appendix: Lake Shore Bancorp, Inc. Peer Data

Institution Name	Ticker	City, State	Total Assets (\$mm)
Evans Bancorp, Inc.	EVBN	Williamsville, NY	\$2,260
Esquire Financial Holdings, Inc.	ESQ	Jericho, NY	\$1,654
Pathfinder Bancorp, Inc.	PBHC	Oswego, NY	\$1,454
Bank of Utica	BKUT	Utica, NY	\$1,307
Solvay Bank Corp.	SOBS	Solvay, NY	\$1,216
Ballston Spa Bancorp, Inc.	BSPA	Ballston Spa, NY	\$851
Jeffersonville Bancorp	JFBC	Jeffersonville, NY	\$687
Glenville Bank Holding Company, Inc.	GLNV	Scotia, NY	\$662
ES Bancshares, Inc.	ESBS	Staten Island, NY	\$629
Catskill Hudson Bancorp, Inc.	CSKL	Kingston, NY	\$573
NBC Bancorp, Inc.	NCXS	Coxsackie, NY	\$546
C.C.Bancorp, Inc.	-	Little Valley, NY	\$378
Average			\$1,018
Median			\$769

Lake Shore, MHC Annual Meeting of Members

- Call to Order
- Introduction of Proposal to Elect Directors
- Tabulation of Votes
- Adjournment