HTLF®

2022

ANNUAL REPORT

FORWARD TOGETHER

CORPORATE PROFILE

HTLF is a $20 billion bank, headquartered in Denver, serving customers across the West, Southwest and Midwest. Our unique model powers our geographically diverse group of banks with technology, efficiency and strength.

Our local bank brands serve our customers and communities through commercial, small business and consumer banking. We leverage our deep local roots and longstanding connections to expand existing relationships and create new ones.

We believe local brands, local leadership and local decision-making best serve the communities where we operate. We differentiate ourselves by offering the depth and breadth of products and services of a $20 billion bank in each of our local markets.

HTLF's common stock is traded through the NASDAQ Global Select Market System under the symbol "HTLF." Depositary shares representing HTLF preferred stock are also traded through the NASDAQ Global Select Market System under the symbol "HTLFP."

Complete information is available at HTLF.com

HTLF.COM

Financial Highlights

For the years ended December 31, 2022, 2021 and 2020
(Dollars in thousands, except per share data)

FOR THE YEAR	2022	% INCREASE (DECREASE)	2021	2020
Net income	$212,180	**-3.52%**	$219,923	$137,938
Net income available to common stockholders	204,130	**-3.65**	211,873	133,487
Cash dividends, common	46,199	**14.05**	40,509	29,468
PER SHARE DATA				
Earnings per common share – diluted (EPS)	$4.79	**-4.20%**	$5.00	$3.57
Cash dividends, common	1.09	**13.54**	0.96	0.80
Book value at December 31	38.25	**-21.94**	49.00	46.77
AT YEAR END				
Total assets	$20,244,228	**5.03%**	$19,274,549	$17,908,339
Total loans receivable	11,428,352	**14.81**	9,954,572	10,023,051
Total deposits	17,513,009	**6.67**	16,417,255	14,979,905
Total common stockholders' equity	1,624,350	**-21.58**	2,071,473	1,968,526
FINANCIAL RATIOS				
Return on average total assets	1.08%		1.19%	0.93%
Return on average stockholders' equity	11.74		10.49	8.06
Return on average tangible common equity (non-GAAP)[1]	18.56		15.59	12.28
Net interest margin	3.32		3.29	3.65
Net interest margin, fully tax-equivalent (non-GAAP)[2]	3.37		3.33	3.69
Average common stockholders' equity to average total assets	8.86		10.92	11.21
Total capital to risk-adjusted assets	14.76		15.9	14.71
Tier 1 capital ratio	11.81		12.39	11.85
Common equity Tier 1 ratio	11.07		11.53	10.92
Tier 1 leverage ratio	9.13		8.57	9.02

[1] Refer to the "Reconciliation of Return on Average Tangible Common Equity (non-GAAP)" table on page 46 of the annual report on Form 10-K.
[2] Refer to the "Reconciliation of Annualized Net Interest Margin, Fully Tax-Equivalent (non-GAAP)" table on page 47 of the annual report on Form 10-K.

"We are executing our strategies, delivering results and exceeding expectations."

FORWARDTOGETHER

BRUCE K. LEE
President and CEO

To our fellow **shareholders:**

In 2022, HTLF moved forward together. We had tremendous success executing our strategies to deliver Strength, Insight and Growth to our customers and strong results that exceeded expectations to our shareholders.

FINANCIAL HIGHLIGHTS FOR THE YEAR INCLUDE:

- Total revenue was a record $726.5 million, an increase of $37 million or 5 percent
- We delivered net income available to common stockholders of $204.1 million and earnings per diluted common share of $4.79
- We saw tremendous loan growth of $1.5 billion or 15 percent. Excluding decreases in Paycheck Protection Program loans, annual loan growth was $1.7 billion or 17 percent
- And our disciplined credit approach continued to deliver excellent credit quality across our portfolios

Total assets grew to a record $20.2 billion, up $970 million or 5 percent, driven by strong momentum in commercial and consumer loans, and growth in deposits.

HTLF continues to be recognized as a top-performing and admired banking organization. For the seventh consecutive year, HTLF was named by *Forbes* as one of "America's Best Banks."

In addition, our steadfast commitment to improving the customer experience was recognized by Coalition Greenwich, as six of our banks were named 2022 Customer Experience Leaders in the Commercial Small Business Banking or Commercial Middle Market Banking categories.

Our 11 bank brands leveraged deep local roots and longstanding connections to expand existing commercial and business banking relationships and create new ones. In 2022, we added 1,300 new commercial customers representing $1.2 billion in funded loans.

We expanded our customer base with ambitious, yet disciplined, growth strategies, adding lending and capital markets expertise that extends our capabilities and enhances our growth trajectory.

We drove business in fee generating products, such as our commercial card business, which reached a milestone in 2022 as we surpassed $1 billion in purchase volume. And *Nilson Report* ranked HTLF among the top U.S. commercial credit card issuers for the seventh year in a row.

HTLF is executing charter consolidation and optimizing branches and geographies to create efficiencies, capacity and scale that support growth organically and through strategic acquisitions of talent and customers.

We successfully executed five bank charter consolidations, with our banks in Arizona, California, Colorado, Illinois and Minnesota becoming divisions of HTLF Bank. The project continues on schedule and on budget. We expect to finish early in the fourth quarter of 2023 and deliver $20 million of annual benefits upon completion.

We've invested significantly in our culture and our people. Our employee retention strategy was successful and our Diversity, Equity and Inclusion program, launched in 2021, continues to develop with the introduction of three employee business resource groups.

In December 2022, HTLF's corporate headquarters moved to Denver, Colorado. Our administrative and operational headquarters continue to be based in Dubuque, Iowa.

HTLF's momentum continues into 2023 as we strive to better serve our employees, customers, communities and shareholders.

We are executing our strategies. We are delivering results. We are exceeding expectations. And we're moving forward together.

TOGETHER, WE ARE HTLF.

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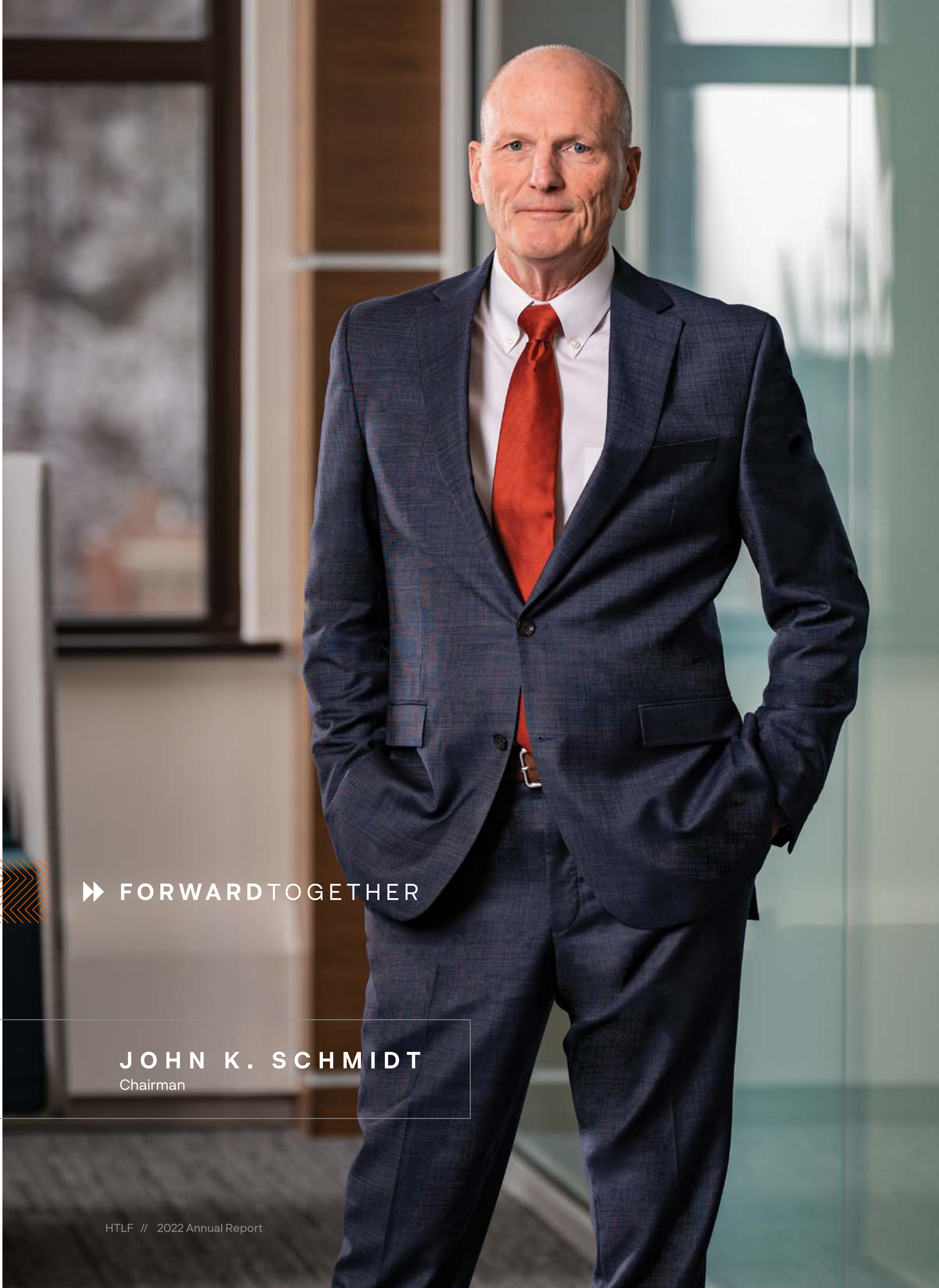
BRUCE K. LEE



FORWARDTOGETHER

JOHN K. SCHMIDT
Chairman

To our valued **shareholders:**

"HTLF had an outstanding year, advancing strategic initiatives, delivering excellent results, and serving customers, communities and shareholders."

FINANCIAL HIGHLIGHTS FOR THE YEAR:

On behalf of the Board of Directors, I'm pleased to share HTLF's 2022 highlights with you in this annual report. HTLF had an outstanding year, advancing strategic initiatives, delivering excellent results, and serving customers, communities and shareholders.

As independent chairman, I'm excited about the company's performance, direction and our collective work as a board. The directors are aligned with each other and management as the company continues to drive forward its strategic plans.

This alignment has been encouraged by our board committees, spearheaded by Robert Engel, Susan Murphy and Duane White, our respective Risk, Audit and Compensation, Nominating and Corporate Governance committee chairpersons.

Charter consolidation was unanimously approved by the Board of Directors in late 2021. The board is pleased with the excellent progress made on the foundational initiative and eagerly anticipates its completion later this year.

With a more efficient organizational structure reinforced by our ongoing commitment to our local markets, HTLF will be even better positioned to serve more businesses and customers and help them reach their financial goals.

2022 was a period of transition for the board. I assumed the role of independent chairman in March, and Lynn "Butch" Fuller resigned from the board in December. I want to thank Mr. Fuller for his service and many contributions to HTLF during his five decades as an employee, board director and board chairman.

As HTLF evolves, we remain grounded in our values, founded on the principle that local control and local decision-making best serve the communities where we operate and create value for shareholders. This core legacy continues to guide us as we adapt and grow.

Thank you for the opportunity to serve you as independent chairman.

TOGETHER, WE ARE HTLF.

John K. Schmidt

JOHN K. SCHMIDT

We celebrate **Together.**

Awards, recognition and strong performance result from the hard work and dedication of our employees. We are committed to delivering Strength, Insight and Growth to our customers, communities and investors. We move forward together, because together, we are HTLF.

ABT was recognized as one of the "Best Places to Work" by the *Phoenix Business Journal* and ranked 10th in its category.

ABT also ranked #2 in the top banks in Arizona ($480M - $1.6B market deposits category) via *AZBIG Media*.

Bill Callahan, President and CEO, Arizona Bank & Trust was also recognized as one of the Bank Leaders of the year in the 2022 list published by *AZBIG Media*.

"It is a privilege to serve as President and CEO of Arizona Bank &Trust," Callahan says. "I look forward to contributing to the success and vibrancy of the Phoenix market and leading our associates to provide the finest community banking experience."

Wisconsin Bank & Trust was voted Best Bank in Sheboygan County by readers of the *Sheboygan Press*.

First Bank & Trust was named Best Bank by KCBD (NBC affiliate) in its Best of the West viewers' poll.

"It was an honor to receive the recognition of "Best Bank" in KCBD's 2022 Best of the West contest, said Greg Garland, President and CEO of First Bank & Trust. "The coveted title is the gold standard in "Best of" voting competitions in West Texas."

Minnesota Bank & Trust was named a 2022 *Star Tribune* Top Workplace.

Minnesota Bank & Trust was also recognized as a Community Champion by the Minnesota Banker's Association for the third year in a row.

Brent Giles, President and CEO of Bank of Blue Valley, was recognized as one of *Ingram's Magazine's* 250 most powerful business leaders in Kansas City.

Premier Valley Bank's Mariposa Banking Center was named Best Bank for the 17th consecutive year in the *Mariposa Gazette's* Best of the Best annual Readers' Choice Awards.

Illinois Bank & Trust won Best Bank for the 5th consecutive year and Best Customer Service (1st time) by the *Rockford Register Star.*

- John K. Schmidt

HTLF Chairman of the Board received the 2022 First Citizen of Dubuque award.

Greenwich
CX Leader
2022

- Greenwich Award

Six of our bank brands named 2022 Customer Experience Leaders in the Commercial Small Business Banking or Commercial Middle Market Banking categories.

N.
NILSON REPORT

- *Nilson Report*

Ranked HTLF among the top U.S. commercial credit card issuers for the seventh year in a row.

- $1B in Purchase Volume

HTLF surpassed $1 billion in purchase volume as a commercial credit card issuer.

AMERICA'S BEST BANKS Forbes 2023

- *Forbes* America's Best Banks 2023

Named for the seventh consecutive year.

- Excellent Credit Quality

Delinquency ratio at historic low of 4 basis points.

Coalition Greenwich is a division of CRISIL, an S&P Global Company, and is a leading global provider of strategic benchmarking, analytics and insights to the financial services industry.

We see **Growth.**

TOTAL ASSETS

▲ $20.24B

+$970M or 5% from a year ago

TOTAL REVENUE

▲ $726.5M

5% growth vs. 2021

LOAN GROWTH

▲ $1.47B

+15% vs. 2021

EPS - DILUTED

▲ $4.79

NET INCOME AVAILABLE TO COMMON SHAREHOLDERS

▲ $204.1M

DIVIDEND

- $1.09 per share of common stock in 2022 (13.5% growth over 2021)
- Increased common stock dividend to a record $.28 per share

Forward focus.

HTLF had tremendous success and significant growth in 2022.

FORWARD TOGETHER

Our strategic focus is based on our disciplined approach in five key areas.

1. STRATEGIC CUSTOMER ACQUISITION AND RETENTION

2022 was a record year for customer acquisitions. We added 1,300 new commercial customers by leveraging our growing commercial expertise. The depth and breadth of our products and services is expanding relationships and developing new ones.

We have made strategic investments in specialized industry verticals and capital markets expertise, including loan syndications, interest rate derivatives, trade finance and foreign exchange. We continue to build our middle market banking services, adding talent and vertical expertise to enhance our capabilities and support our local bank brands.

- **1,300+** New Commercial Customers
- **$1.2B** Loans Funded

2. ENHANCING OUR CUSTOMER EXPERIENCE

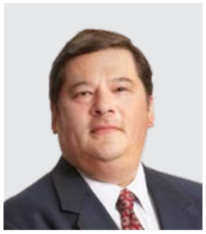
Our steadfast commitment to improving the customer experience has been recognized by Coalition Greenwich, as six of our bank brands were named 2022 Customer Experience Leaders in the Commercial Small Business Banking or Commercial Middle Market Banking categories.

To earn the recognition, our banks achieved scores that exceeded the industry benchmark by a specified margin in:

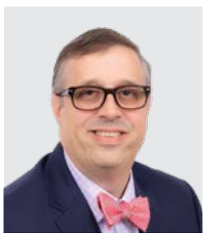
- Overall satisfaction
- Likelihood to recommend
- Ease of doing business

Nilson Report ranked HTLF among the top U.S. commercial credit card issuers for the seventh year in a row. *Nilson Report's* ranking reflects HTLF's innovative approach to digital technology products and providing excellent customer education and experiences.

- HTLF among the top U.S. commercial credit card issuers



Jay Kim
EVP, General Counsel and HTLF Chief Administrative Officer



Kevin Karrels
EVP, Head of Consumer Banking and HTLF Chief Marketing Officer

Calvin Carson
SVP, Treasury and Payment Solutions National Sales Manager

-3%

Efficiency Ratio (non-GAAP) Decrease in 2022[1]

3. ATTRACTING AND RETAINING TALENT

We continue to invest in our culture, which enables us to better serve our customers and communities.

Jay Kim, EVP, General Counsel, assumed the new Chief Administrative Officer role. Jay's leadership aligns and enhances HTLF support services and processes.

Kevin Karrels, EVP, Head of Consumer Banking, gained additional leadership responsibilities as our new Chief Marketing Officer. Kevin brings creativity and innovation to our Marketing department to better support our banks and business partners.

Calvin Carson was promoted to SVP, Treasury and Payment Solutions National Sales Manager. In 2022, Calvin's Treasury and Payment Solutions team and our banks reached a significant milestone: HTLF surpassed $1 billion in purchase card volume as a commercial credit card issuer! HTLF continues to be among the fastest growing Visa issuers and remains committed to growing non-interest income through this line of business, as evidenced by this impressive accomplishment.

4. EFFICIENCY IMPROVEMENTS TO OPERATE EFFECTIVELY

HTLF is driving efficiency while investing for growth. We continue to consolidate our 11 separate bank charters into a single HTLF Bank charter. This will create operational and cost efficiencies, unlocking capacity that supports growth organically and through mergers and acquisitions.

We also continue to optimize our branch network. In 2022, we reduced our number of branches by 8 percent to 119 total locations.

We reduced our number of full-time equivalent employees by 11 percent and our efficiency ratio (non-GAAP) decreased 3 percent for the year.

[1] Refer to the efficiency ratio (non-GAAP) table on page 47 of the annual report on Form 10-K.

5. PRUDENT RISK MANAGEMENT AND CREDIT DISCIPLINE

Our ongoing growth strategies and investments in talent and technology continue to deliver results, including our excellent credit quality. We've added talent and strategically built a strong credit team that uses a disciplined credit approach. The team has been focused on improving credit quality across our portfolios.

Our delinquency ratio reached a historic low of 4 basis points and non-performing loans represented 51 basis points of total loans.

It was a year of significant growth and tremendous accomplishment for HTLF. We executed our strategies, grew our business, operated more efficiently, delivered strong results and most importantly, provided excellent service to our customers and communities.

Together, we make a **Difference.**

HTLF is committed to enriching lives one customer, employee and community at a time. We believe our continued growth and the growth of the communities we serve is guided by our values of integrity, accountability, community and excellence.

COMMITMENT TO SUSTAINABILITY

Achieving a more sustainable future means helping solve problems and delivering solutions. It also means being an outstanding partner with our customers and communities. These priorities inspire us to nurture and develop diverse talent and build trust through collaboration. Our work both inside and outside HTLF continues to focus on our strategic partnerships. By shining a light on our progress and where we can improve, we become better equipped to take action.

HTLF partnered with One Tree Planted, a non-profit organization focused on reforestation and conservation. HTLF planted one tree for every HTLF and bank employee in honor of National Arbor Day. The trees were planted in areas of our geographic footprint impacted by devastating forest fires.

Planting trees in our western markets is just one way we demonstrate the importance of corporate social responsibility and our commitment to sustainability.

Other sustainability efforts include LEED Certified buildings, solar panels, converting to LED lighting and decreasing paper printing volumes by 48 percent since 2019.

12,000+

Employee Volunteer Hours

$800K+

In Charitable Donations

DIVERSITY, EQUITY AND INCLUSION (DEI)

Diversity, Equity and Inclusion (DEI) is the right thing to do, and we also believe it leads to a more positive culture, higher-performing teams and delivering better products and services. HTLF is two years into our DEI journey and made significant accomplishments in 2022 related to recruiting and developing diverse talent.

The HTLF Board of Directors has evolved its diversity efforts to include talented individuals with experiences that help evolve HTLF and the banking industry. Recent directors added to the board came from a diverse group of candidates and enhanced gender and minority representation on the board.

In 2022, HTLF published its first DEI annual report, summarizing HTLF's diversity statistics and helping identify areas of opportunity so we can continue to evolve on our DEI journey.

Three employee business resource groups (EBRGs) launched. EBRGs are voluntary, employee-led networks based on shared characteristics or backgrounds formed around a common, yet traditionally underrepresented, social identity. These groups are open to all employees and promote a more diverse and inclusive environment where everyone feels valued and empowered to succeed. The three groups include LIFT – Powered by the Women of HTLF, Multicultural Champions and Veterans & Friends. These groups are comprised of more than 175 founding members combined.
HTLF seeks to improve the diversity among

management and leadership. The creation of EBRGs provides new leadership and networking opportunities as well as professional development exposure for internal candidates.

Employee engagement remains an important part of our efforts and is cultivated with a quarterly speaker series and new DEI online training courses.

FINANCIAL INCLUSION

We are committed to financial inclusion through the implementation of new products and services to help support low to moderate income (LMI) customers and communities. Earlier this year, we launched a new checking product called Bank-on, that is checkless and has no overdrafts fees, helping LMI customers avoid fees. We are a part of a national movement to increase safe and affordable banking and bring the underbanked and unbanked into the financial mainstream. Over 300 Bank-on checking accounts have been opened.

In 2022, inclusive lending at our banks provided over 3,900 small business and micro loans totaling more than $800 million. Our Buy Local Loans help support local businesses as part of the Community Reinvestment Act (CRA). Since we launched the program we have helped nearly 4,700 customers with over $20 million in lending.

SERVING COMMUNITIES

HTLF employees have invested their time and talents in the communities we serve with more than 12,000 volunteer hours and charitable giving exceeding $800,000. CRA hosted and attended events totaling more than 2,900 hours and over $200 million dedicated to CRA investments directly related to developing our communities.

Community Development Financial Institutions (CDFI) are mission-driven organizations providing financing for underserved communities and populations. CDFI funds are certified by the U.S. Department of Treasury and are eligible to receive federal funding matching the amount and terms of locally raised capital, so local dollars can be leveraged to generate additional funding for our communities. Illinois Bank & Trust is the lead bank on a CDFI fund, the only one in Rockford, Illinois, and has committed $250,000.

EMPLOYEE FOCUS

The health and wellness of our employees remain a primary focus. The pandemic was hard on many employees and their families, and the impacts are still being felt. Mental health care is an ongoing need, and to aid our employees and their dependents we've increased free access to counseling sessions.

HTLF has increased our remote workforce using technology. Remote work has allowed us to expand our talent pool across the U.S., employing people in 42 states. Remote work is also a talent retention tool and demonstrates our flexibility as an employer. 24 percent of employees are fully remote while 22 percent work on a hybrid basis. We have found that overall productivity has increased with our remote workforce.

HTLF is enhancing our employee benefits in 2023, including:

- Increasing the 401k matching contribution from 3 percent to **5 percent**
- Introducing a **$2,000** scholarship for children of eligible employees
- Introducing a matching contribution for eligible charitable organizations ranging from **$50 up to $2,500**

We are driven to deliver Strength, Insight, and Growth to our customers, community, employees and shareholders.

ER2

Driving Forces

At home, at work and at play, software and hardware enables nearly all of our activities. But what happens when that technology renders our device a dinosaur and dreaded software updates are needed? Enter ER2.

ER2 seamlessly manages software and hardware purchasing, maximizes warehousing and delivery needs, and simplifies installment and deployment specializing in the corporate and educational sectors. They work with Fortune 100 companies to recycle electronics, are licensed to destroy sensitive information and remove, clean and repurpose the devices through online sales or donations to those in need. An environmentally and socially focused business, ER2's services have zero-landfill impact.

Managing old and new corporate technology needs is just one side of ER2. Through the generosity of its clients, ER2 also assists with often-overlooked technology needs of underserved communities around the globe. It serves as the conduit for getting technology in the hands of in-need organizations so they can continue making an impact on people's lives. Organizations such as Forefront Experience, PS Academy Arizona, DCS Youth Valley Resource Room and countless others have been aided using refurbished technology and expertise facilitated through ER2.

The founders of ER2, Chris Ko and Rick Krug, took very different paths to success, albeit with shared values.

Chris Ko began his family at a young age. He graduated from Arizona State University with a degree in finance, plus a wife and three kids. He went directly into venture capital and private equity where he quickly learned how to grow a business and maximize a financial return.

Rick Krug grew up on a farm in Wisconsin where his adventurous spirit was fueled early on. He worked for 17 years in the automotive field, then transitioned into the electronic recycling industry, focusing on his lifelong passion to innovate, and setting into motion what is now ER2.

A TRUSTWORTHY PARTNERSHIP

Chris and Rick partnered in 2011, with a common vision of what ER2 could be, and created a company founded on and operated through a strong set of shared values. ER2 found a trustworthy partner in Arizona Bank & Trust (ABT) to help expand its vision further.

The ABT team of Peter Eberle, Relationship Manager, Tony Hammond, Head of Commercial and Bill Callahan, President and CEO, partner on the ER2 relationship.

Since 2018, ABT has provided ER2 with a full banking relationship, including treasury management, owner occupied real estate (OORE) and working capital line of credit.

Chris commented, "The ability to connect with leadership, as well as ABT's ability and desire to understand a complicated business model, created the keys to the successful relationship."

Chris is grateful for the ABT team and support at the HTLF level. ER2 would not be where it is today without them, growing 38% year over year.

ER2 supplies technology to charter schools. When there were chip shortages and supply delays in 2022, ABT stepped up and stepped in.

School equipment is ordered in March and April, but ER2 doesn't get paid until months later. ABT provided a non-revolving line of credit with an advanced strategy to help ER2. This was done with knowledge and understanding of how the business operates.

"We have grown the relationship with ABT from one OORE and a small line of credit when we were at $4 million in annual sales, to four OOREs and now over $32 million in sales," Chris added.

ER2'S MISSION

ER2 believes it's a steward of the planet and has a responsibility to take care of it. The company has built a sustainable business model that can be profitable and positively impact the environment. It's committed to having a zero-landfill impact relating to all technology that comes through its doors, and to educate clients and peers about sustainable practices and environmentally conscious procedures.

ER2's mission to grow a sustainable company providing opportunities for individuals to continuously improve is clearly successful. Chris and Rick lead a diverse group of individuals who have the unified desire to empower uniqueness. ER2 proves that people are the driving force, not technology.

Phoenix, Arizona

Arizona Bank & Trust
a division of HTLF Bank

"The ability to connect with leadership, as well as ABT's ability and desire to understand a complicated business model, created the keys to the successful relationship."

CHRIS KO
Co-founder,
ER2

H&C ANIMAL HEALTH

Find Yes!

Critical thinking is the foundation of every department and creativity is the driving factor of the entire organization. Using those guiding principles, Find Yes has brought purrfect growth.

Find Yes is the mantra that H&C Animal Health uses to guide its success. Founder Chuck Latham and team are passionate brand builders, results-driven sales and marketing specialists, informed data analysts, powerful digital experts, seasoned consultants, content creators, informed consumer researchers and most importantly, pet lovers.

With over 100 years of combined experience on H&C Animal Health's executive team, the drive to create innovative products and provide affordable access had humble beginnings.

PEOPLE AND PARTNERSHIPS

Chuck grew up on a hog farm. He was surrounded by veterinarians and pet lovers. Driven by his own passion for animals, he took his ideas, worked hard and created an organization that now employs over 400 people. While the products are for pets, the business is about people and partnerships.

Citywide Banks (CWB) provides the essential financial partnership H&C Animal Health values and uses to its advantage. The company takes advantage of a wide breadth of available business tools, including treasury management, deposit and loan services.

Chuck commented, "Our business is unique. We run a branded manufacturing company and a brokerage commissioned based company. It is a different and difficult business model. Yet, our team at CWB understands our needs works to meet them."

"It is great to be able to pick up the phone, call CWB, and work through opportunities or issues. For several years, we've been good business partners and friends. Their team looks out for us as a holistic business," added Chuck.

Citywide Banks' culture, demonstrated through Reggie Fink, CWB Relationship Manager, fosters open communication. Working

While the products are for pets, the business is about people.

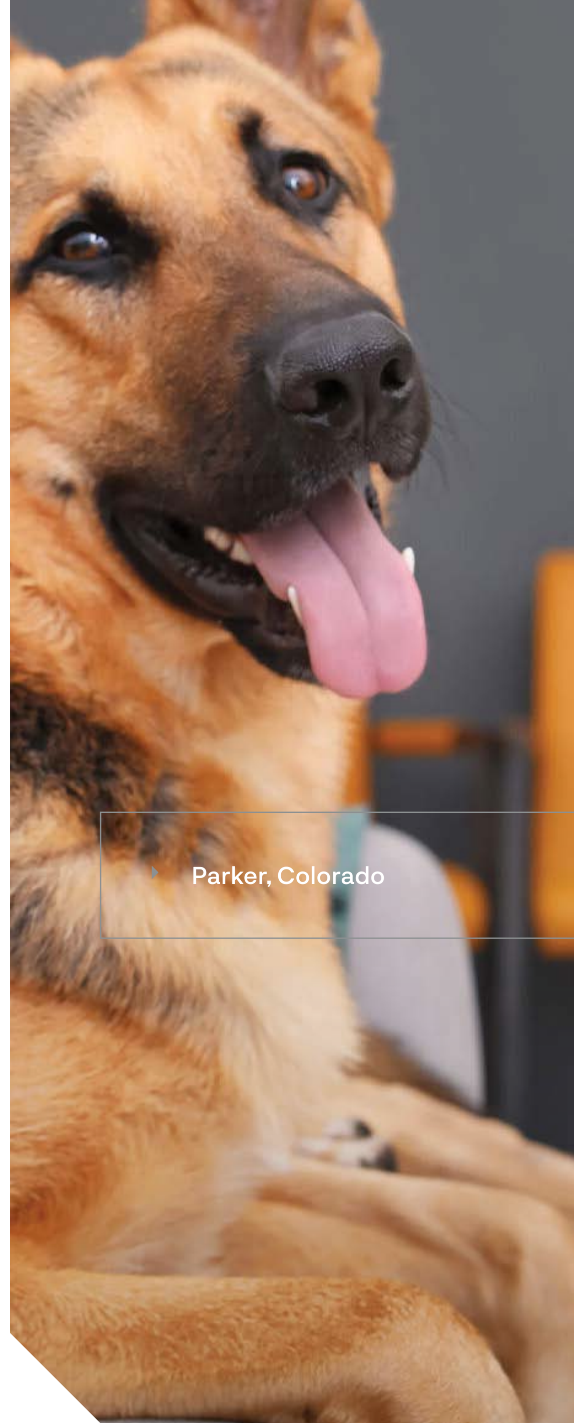
collectively, both the CWB and H&C Animal Health teams meet regularly. They confer not only on banking needs, but on relationship building and knowledge sharing. Chuck expressed, “Our CWB team asks the right questions. Hard questions sometimes. And that’s been good. Really good.”

Together, H&C Animal Health, Michael Wamsganz, CWB President and CEO, Shawn McGoff, CWB Head of Commercial and Reggie Fink have fostered a successful partnership.

INNOVATING PET PRODUCTS

Working closely on day-to-day business, mergers and acquisitions and long-term strategies, H&C Animal Health has successfully created new categories in the pet space. They’ve delivered innovative products from veterinary services to pet retail, and made products more affordable and accessible to consumers by offering them over the counter rather than requiring a prescription. Over the years, they’ve donated millions to help animals. As an example, beneficiaries on Giving Tuesday received much needed, and much appreciated, supplies and treats, helping pets live their best life.

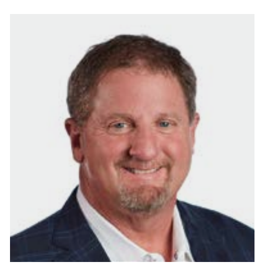
H&C Animal Health has created an international business, employing hundreds of people and enhancing animal care for millions of pets. Find Yes, indeed!



Parker, Colorado

CITYWIDE BANKS®
a division of HTLF Bank

“It is great to be able to pick up the phone, call CWB, and work through opportunities or issues. For several years, we’ve been good business partners and friends.”



CHUCK LATHAM
Founder,
H&C Animal Health

TUCKER FREIGHT LINES

Delivering Growth by the Truckload

Tucker Freight Lines, previously known as Art Pape Transfer, has been in transportation since 1956 and has worked with customers in open deck and dry van transportation sectors to find various solutions for transportation roadblocks.

A.J. Tucker, President, and Sauny Tucker, CEO, have built a solid foundation of customer satisfaction and excellent service, all while focusing on providing the highest quality trucking and transportation experience possible for their drivers, customers, employees and strategic partners.

FAMILY BUSINESS

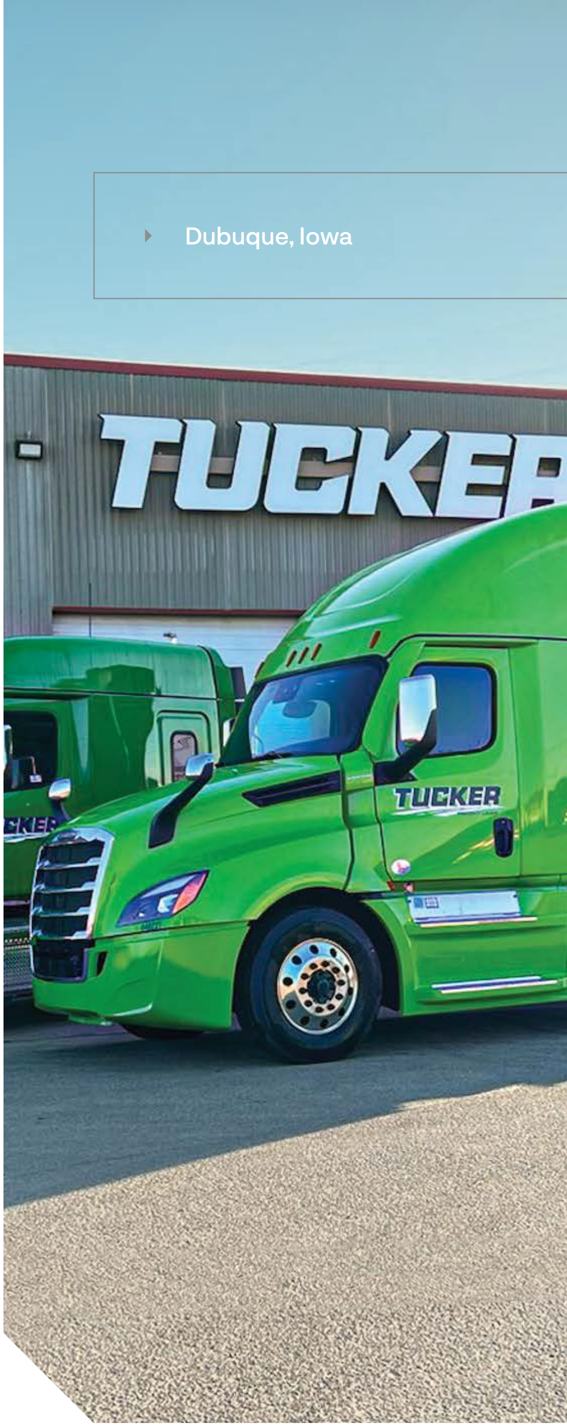
Tucker Freight Lines is a family business with a long trucking history. Sauny's father and grandfather both were truckers. Her father and brother are both employed by Tucker Freight Lines. A.J.'s father also has extensive experience in trucking and continues to serve as an important sounding board for all things related to the business.

The husband-and-wife duo believes their relationship is a key to their entrepreneurial success. "You also need to have fun and surround yourself with people who love what they do and that is the atmosphere we've created," says Sauny.

"A benchmark for success isn't in the size of the company, but rather, its positive workplace culture and emphasis on family values," says A.J.

SPECIALIZED SUPPORT

The Tuckers see the Dubuque Bank and Trust (DB&T) team as a key part of their family. "We financed the acquisition of the company four and a half years ago and have partnered with them as they've grown over 300% from 2018 to 2022," said Drew Townsend, DB&T President and CEO.



Women in Trucking Association named Sauny one of the industry's "Top Women to Watch."

"DB&T, with the support of HTLF, has the capacity to support the capital intense nature of our business and the growth of it," said Sauny. "We've surpassed our growth trajectories and DB&T has grown with us."

Both businesses are in Dubuque, Iowa, and that's been convenient. "They are always willing to listen and that can't be said at other financial institutions. I have direct access to the bank president who takes time for us," said A.J.

Tucker Freight Lines utilizes many of DB&T's products and services, including commercial card, treasury management, mortgage, lending, retirement plan services and personal accounts. The convenience of a one-stop-shop and not having multiple contacts saves time and money.

Sauny never envisioned herself as someone who would lead a company, but she is making a name for herself in the industry. In March of 2022, the Women in Trucking Association named Sauny one of the industry's "Top Women to Watch."

Sauny says, "The company strives to create opportunities to encourage more women to consider careers in the trucking industry."

DB&T
DUBUQUE BANK AND TRUST

> "DB&T, with the support of HTLF, has the capacity to support the capital-intense nature of our business and the growth of it. We've surpassed our growth trajectories and DB&T has grown with us."

SAUNY TUCKER
CEO, Tucker Freight Lines

A.J. TUCKER
President, Tucker Freight Lines

TRUST AUTOMATION, INC.

Partnership Built on Trust

Trust Automation, Inc., designs, builds and supports control and power management systems for Department of Defense, Semiconductor Capital Equipment, industrial automation and medical applications.

Trust Automation has over 30 years of experience in custom motors, linear drives, digital drives, custom assemblies and products to fit unique applications and ground-up system design and manufacturing solutions.

Ty Safreno, Co-founder, Chief Executive Officer and Chief Technology Officer, came to his friend Trudie Safreno, Co-founder, Chief Financial Officer and President, while they were in college with a business idea. They started Trust Automation and while these young entrepreneurs grew their friendship into a marriage, their business also took off with much success.

Trust's business model is built on a commitment to help its customers solve problems by automating aspects of their products. You can find their products almost anywhere, from a Starbucks oven, to how your food is packaged, how your produce is planted, how computers are made, how your heart beats and even how our military defends.

PERSONALIZED FINANCIAL STRATEGY

The Safrenos best customers are their partners, and that is what they were looking for in a financial partner. "Premier Valley Bank (PVB) was the first bank to believe in us," said Ty Safreno. "Their team took the time to understand our business and personally met with us to create a personalized financial strategy that aligns with our growth goals."

"Decisions about our business felt local and not distant," said Trudie. "We felt like we were a part of the process."

Senior leadership took the time to listen to the Safrenos, and not in a superficial way. Mike Mierau, PVB Relationship Manager, was committed to understanding their industry and business needs. Lo B. Nestman, PVB President and CEO, instilled confidence in their business and met with them personally. Laura Cellini, PVB Treasury Management Officer, reintroduced treasury management solutions based on the requirement for the government contracts. And Andy Carlson, PVB Treasury and Payment Solutions Consultant, implemented a new commercial credit card program.

"They presented a structure that works for everyone, truly a partnership that is much more than a relationship," said Trudie. "They are proactive versus reactive."

COMMUNITY IMPACT

“Premier Valley Bank is honored to work with such an admirable company,” Mierau said.

Ty and Trudie have a willingness to impact and better their community and have positively affected countless lives. During the height of the Covid-19 pandemic, Ty led a team to research, design, collaborate with others and construct the Cal Poly Alternative Care Site, a way to bring more hospital beds to San Luis Obispo County.

The San Luis Obispo Chamber of Commerce named Ty Safreno its 2022 Citizen of the Year. The award is given yearly to someone who exhibits “unparalleled service to the community of San Luis Obispo.”.

Ty and Trudie are committed to improving the lives of their employees, customers and community. Trust Automation is one of the largest employers in the San Luis Obispo market.

Ty and Trudie Safreno are committed to improving the lives of their employees, customers and community.

Their 104,000 square foot facility supports its 125-plus team of engineers, designers, manufacturers and customer service employees. They take pride in their family-friendly workplace and created a company-owned and operated on-site childcare facility, one of only three in California along with Patagonia and Google.

PREMIER VALLEY BANK
a division of HTLF Bank

“Their team took the time to understand our business and personally met with us to create a personalized financial strategy that aligns with our growth goals.”

TY SAFRENO
Co-founder, Chief Executive Officer and Chief Technology Officer, Trust Automation, Inc.

TRUDIE SAFRENO
Co-founder, Chief Financial Officer and President, Trust Automation, Inc.

WAWONA FROZEN FOODS

Fruitful Growth

Located in California's fertile San Joaquin Valley, Wawona Frozen Foods specializes in growing and processing the highest quality fresh frozen fruit products for food manufacturers, foodservice distributors, restaurants, resorts, supermarkets and schools.

Wawona is a multi-generational family owned and operated frozen fruit processor and the leader of the U.S. frozen peach market.

Founded in 1963, Wawona specializes in the growing and freezing of fresh fruit. As a pioneer in the frozen fruit industry, the company is an industry leader, producing many of America's favorite fruits including fresh frozen peaches, strawberries, pears, plums and unique mixed fruit blends.

Wawona has become an industry leader, shipping more than 100 million pounds annually, and is the largest peach processing facility in the nation, turning out 65 to 75 million pounds in about 120 days of its season.

Bill Smittcamp, who took the reins as President and CEO from his brother Bob in 1983, continues to run Wawona and is helped by the third generation of Smittcamps: Blake, Executive Vice President of Sales; Bradley, Regional Sales Manager for Schools; and Blair, Marketing & Special Projects Coordinator.

AGRICULTURAL PARTNERS

"Every business is unique, ours is even more so. We freeze fresh fruits during the harvest season, store all year long, and ship to our customers as they need our products," says Bill. "With the capital-intense nature of our business, it takes a bank and a relationship that understands agriculture."

"Relationships are especially important to our business and family. Doug Weber with HTLF Food and Agribusiness was always a strong advocate and a straight shooter," said Blake. "The team at HTLF is only a phone call away and is always very responsive."

"We understand their business and are focused on providing creative solutions to meet all of their banking needs," said Doug. "Our consultative approach addressed key pain points in their deal structure and provided a unique way to meet their credit needs — but most importantly, we understand their industry and its seasonality."

The Smittcamp family is synonymous with philanthropy and advocacy.

"I consider my bank to be my partner," said Bill. "They need to understand the ups and downs of our business, so open and honest communications is key, which speaks volumes about Doug."

NUTRITION AND ADVOCACY

Another important partner is the USDA. Wawona has been working with the USDA for over 35 years, providing frozen fruit cups, frozen fruit pops and more to children in the national school meals program. Wawona works with school districts to ensure their menus fulfill the recommended daily fruit requirements.

The Smittcamp family is synonymous with philanthropy and advocacy. In June, Bill testified before the U.S. House of Representatives Agriculture Committee meeting to urge Congress to ensure frozen foods are included and promoted in nutrition programs in the writing of the 2023 farm bill.

And Wawona continues to emphasize sustainability in innovative ways. For example, many of the company's roads are paved with peach pits. It is just one way the current generations of Smittcamps are trying to ensure the company bears fruit for generations to come.

Clovis, California

HTLF Food & Agribusiness

"With the capital-intense nature of our business, it takes a bank and a relationship that understands agriculture."

BILL SMITTCAMP
President & CEO,
Wawona Frozen Foods

DOUBLE NICKEL STEAK HOUSE AND SPANKY'S

Order Up!

Before attending a big game or celebrating a special evening, your experience can be enhanced by finding just the right establishment. The food, the drink, and most importantly the people, can make or break the mood.

In the heart of the old West – Lubbock, Texas – are two delectable options. Lisa West, owner of Double Nickel Steak House and Spanky's restaurants, leads her staff in hand-cutting your steak or pouring your favorite beverage, essential for the perfect outing.

The Double Nickel is a modern, saloon-style steak house bragging, 'Where the old West meets Lisa West.' Offering steaks, seafood, an eclectic wine selection and handcrafted cocktails, Double Nickel's attentive staff will ensure you have a memorable evening.

Spanky's, mood is quite different. It's an inviting downtown eatery for businesses and college students. Spanky's comically describes its location on the corner of Awesome Burgers and Fried Cheese, right across from Texas Tech University and Jones AT&T Stadium. Spanky's encourages that 'good people drink good beer.'

While two very different restaurants, guests can expect the same dedication to detail while visiting either of these successful establishments.

FOCUSED ON SUCCESS

Lisa West started her culinary career while in college with a passion for food and customers. At a young age, she was determined despite working in a male dominated world. A client of First Bank & Trust (FBT) since 1996 when FBT first opened, Lisa now holds a seat on the First Bank & Trust board.

When commenting on her success, Lisa confidently shares, "Whether you are a woman or a man – your willingness to work hard and put in the time is recognized by your community and your customers, and they will reward you for it." She added, "Always stay focused on success. Maintain your path and passion."

Lisa's success is directly tied to her desire to be the best and willingness to set that example.

Greg Garland, FBT President and CEO, and Matt Graves, FBT Head of Commercial, work closely with Lisa. Greg said, "Lisa's success is directly tied to her desire to be the best and willingness to set that example. She expects the same from her organization. Her boots on the ground business approach has helped her to be successful."

A 26-YEAR RELATIONSHIP

Working with Lisa on both professional and personal accounts, FBT values the 26-year relationship. Matt commented, "As a local bank, we can get to know her business and her goals. We work closely with Lisa. She is humble and dedicated."

"Matt and Greg are incredibly good at knowing my business and my needs," Lisa commented. "Their focus on small business is so valuable. FBT takes care of me, they make me feel important, just as important as a large business."

So whether you are looking for a romantic night out or a cold beverage before a fall football game in Lubbock, head West. Lisa West will not disappoint.

Lubbock, Texas

FirstBank & Trust TEXAS

"Their focus on small business is so valuable. FBT takes care of me, they make me feel important, just as important as a large business."

LISA WEST
Owner, Double Nickel Steak House and Spanky's

EXECUTIVE MANAGEMENT AND BOARD OF DIRECTORS

EXECUTIVE MANAGEMENT

Bruce K. Lee
President and CEO

Deborah K. Deters
Executive Vice President
Chief Human Resources Officer

Mark A. Frank
Executive Vice President
Chief Operations Officer

Nathan R. Jones
Executive Vice President
Chief Credit Officer

Kevin C. Karrels
Executive Vice President
Head of Consumer Banking
and Chief Marketing Officer

Jay L. Kim
Executive Vice President
General Counsel and Chief
Administrative Officer

Bryan R. McKeag
Executive Vice President
Chief Financial Officer

Tamina L. O'Neill
Executive Vice President
Chief Risk Officer

David A. Prince
Executive Vice President
Head of Commercial Banking

Janet M. Quick
Executive Vice President
Deputy Chief Financial Officer
Principal Accounting Officer

Kevin G. Quinn
Executive Vice President
Chief Banking Officer

BOARD OF DIRECTORS

John K. Schmidt
Chairman
Senior Vice President and
Chief Financial Officer
A.Y. McDonald
Dubuque, Iowa

Bruce K. Lee
President and CEO
HTLF
Denver, Colorado

Robert B. Engel
Managing Director and CEO
BLT Advisory Services, LLC
Naples, Florida

Kathryn Graves Unger
Vice President
Environmental, Social and Governance
Boston Scientific Corporation
Marlborough, Massachusetts

Thomas L. Flynn
Past President and CEO
Flynn Ready-Mix Concrete Co.
Dubuque, Iowa

Jennifer K. Hopkins
Managing Partner
Crescendo Capital Partners
Centennial, Colorado

Christopher S. Hylen
Past Board Member and CEO
Reltio, Inc.
Redwood City, California

Susan G. Murphy
Principal
The Grace Alliance, LLC
Denver, Colorado

Martin J. Schmitz
Past Chairman
Citywide Banks
Greenwood Village, Colorado

Duane E. White
Past Executive Vice President
and Chief Product Officer
Medecision
Minneapolis, Minnesota

HTLF

DIVISION CEOS

ARIZONA BANK & TRUST

William H. Callahan
President and CEO

BANK OF BLUE VALLEY

Brent M. Giles
President and CEO

CITYWIDE BANKS

Michael A. Wamsganz
President and CEO

DUBUQUE BANK AND TRUST COMPANY

Andrew E. Townsend
President and CEO

FIRST BANK & TRUST

Greg Garland
President and CEO

ILLINOIS BANK & TRUST

Jeffrey S. Hultman
President and CEO

MINNESOTA BANK & TRUST

Stephen G. Bishop
President and CEO

NEW MEXICO BANK & TRUST

R. Greg Leyendecker
President and CEO

PREMIER VALLEY BANK

Lo B. Nestman
President and CEO

ROCKY MOUNTAIN BANK

Tod M. Petersen
President and CEO

WISCONSIN BANK & TRUST

Douglas M. Kohlbeck
President and CEO

FORWARD
TOGETHER

Corporate and Investor Information

ANNUAL MEETING

The Board of Directors of Heartland Financial USA, Inc. (HTLF) will hold a virtual Annual Meeting. We invite you to electronically attend the Annual Meeting on Wednesday, June 14, 2023, at 1 p.m. Mountain Time. You can attend the meeting, vote and submit your questions during the meeting by visiting: www.virtualshareholdermeeting.com/HTLF2023. Prior to the meeting, you can vote at www.proxyvote.com.

FORM 10-K AND OTHER INFORMATION

The company submits an annual report to the Securities and Exchange Commission on Form 10-K. Stockholders may obtain copies of our Form 10-K without charge by writing to Jay Kim, Executive Vice President, General Counsel, HTLF, 1800 Larimer Street, Suite 1800, Denver, CO 80202. The Form 10-K is also available on the HTLF website, HTLF.com, under the heading Investor Relations. Securities analysts and other investors seeking additional information about HTLF should contact Bryan R. McKeag, Executive Vice President, Chief Financial Officer, at the above address or call him at 563.589.1994. Additional information is also available at HTLF's website: HTLF.com.

DIVIDEND REINVESTMENT AND STOCK PURCHASE PLAN

HTLF offers stockholders of record a simple and convenient method of increasing holdings in our company by participating in HTLF's Dividend Reinvestment and Stock Purchase Plan. Participants may directly reinvest dividends and make optional cash purchases to acquire additional shares. They may elect to reinvest dividends on either all or a portion of the shares they hold. Participants may also elect to purchase shares of common stock by making optional cash payments. For additional information regarding the Plan, or to request a copy of the Plan's prospectus, please call HTLF's transfer agent, Broadridge Corporate Issuer Solutions at 1.866.741.7520

PROFILE

MAILING ADDRESS

HTLF
1800 Larimer Street
Suite 1800,
Denver, CO 80202

INDEPENDENT AUDITORS

KPMG LLP
Des Moines, Iowa

STOCK LISTING

HTLF's common stock is traded through the NASDAQ Global Select Market System under the symbol "HTLF." Depositary shares representing HTLF preferred stock are also traded through the NASDAQ Global Select Market System under the symbol "HTLFP." Complete information is available at HTLF.com

TRANSFER AGENT/ STOCKHOLDER SERVICES

Inquiries related to stockholder records, stock transfers, changes of ownership, changes of address and dividend payments should be sent to HTLF's transfer agent at the following address: Broadridge Corporate Issuer Solutions, P.O. Box 1342, Brentwood, NY 11717.

They may also be contacted by phone at 1.866.741.7520.

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

☐ 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: 001-15393

HEARTLAND FINANCIAL USA, INC.

(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

42-1405748

(I.R.S. Employer identification number)

1800 Larimer Street, Suite 1800, Denver, Colorado 80202

(Address of principal executive offices) (Zip Code)

(303) 285-9200

(Registrant's telephone number, including area code)

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

Title of Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock $1.00 par value	HTLF	The Nasdaq Global Select Market
Depositary Shares, each representing 1/400th interest in a share of 7.00% Fixed-Rate Reset Non-Cumulative Perpetual Preferred Stock, Series E	HTLFP	The Nasdaq Global Select Market

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 Exchange 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, 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 or 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. Yes ☐ No ☐

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).
Yes ☐ No ☐

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant (assuming, for purposes of this calculation only, that the Registrant's directors, executive officers and greater than 10% shareholders are affiliates of the Registrant), based on the last sales price quoted on the Nasdaq Global Select Market on June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter, was approximately $1,705,115,226.

As of February 22, 2023, the Registrant had issued and outstanding 42,468,081 shares of common stock, $1.00 par value per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the 2023 Annual Meeting of Stockholders, which will be filed no later than 120 days after December 31, 2022, are incorporated by reference into Part III.

HEARTLAND FINANCIAL USA, INC.
Form 10-K Annual Report
Table of Contents

PART I

SAFE HARBOR STATEMENT

This Annual Report on Form 10-K (including any information incorporated herein by reference) contains, and future oral and written statements of Heartland Financial USA, Inc. ("HTLF") and its management may contain, forward-looking statements within the meaning of such term in Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act") with respect to the business, financial condition, results of operations, plans, objectives and future performance of HTLF. Any statements about HTLF's expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. Forward-looking statements may include information about possible or assumed future results of HTLF's operations or performance, and may be based upon beliefs, expectations and assumptions of HTLF's management. These forward-looking statements are generally identifiable by the use of words such as "believe," "expect," "anticipate," "plan," "intend," "estimate," "project," "may," "will," "would," "could," "should," "view," "opportunity," "potential," or other similar expressions. Although HTLF has made these statements based on management's experience and best estimate of future events, the ability of HTLF to predict results or the actual effect or outcomes of plans or strategies is inherently uncertain, and there may be events or factors that management has not anticipated. Therefore, the accuracy and achievement of such forward-looking statements and estimates are subject to a number of risks, many of which are beyond the ability of management to control or predict, that could cause actual results to differ materially from those in its forward-looking statements. These factors, which HTLF currently believes could have a material adverse effect on its operations and future prospects are detailed in the "Risk Factors" section included under Item 1A. of Part I of this Annual Report on Form 10-K, include, among others:

- Economic and Market Conditions Risks, including risks related to the deterioration of the U.S. economy in general and in the local economies in which HTLF conducts its operations and future civil unrest, natural disasters, pandemics, such as the COVID-19 pandemic or future pandemics and governmental measures addressing them, climate change and climate-related regulations, persistent inflation, higher interest rates, recession, supply chain issues, labor shortages, terrorist threats or acts of war;
- Credit Risks, including risks of increasing credit losses due to deterioration in the financial condition of HTLF's borrowers, changes in asset and collateral values due to climate and other borrower industry risks, which may impact the provision for credit losses and net charge-offs;
- Liquidity and Interest Rate Risks, including the impact of capital market conditions, rising interest rates and changes in monetary policy on our borrowings and net interest income;
- Operational Risks, including processing, information systems, cybersecurity, vendor, business interruption, and fraud risks;
- Strategic and External Risks, including economic, political, and competitive forces impacting our business;
- Legal, Compliance and Reputational Risks, including regulatory and litigation risks; and
- Risks of Owning Stock in HTLF, including stock price volatility and dilution as a result of future equity offerings and acquisitions.

However, there can be no assurance that other factors not currently anticipated by HTLF will not materially and adversely affect HTLF’s business, financial condition and results of operations. Additionally, all statements in this Annual Report on Form 10-K, including forward-looking statements, speak only as of the date they are made. HTLF does not undertake and specifically disclaims any obligation to publicly release the results of any revisions which may be made to any forward-looking statement to reflect events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events or to otherwise update any statement in light of new information or future events. Further information concerning HTLF and its business, including additional factors that could materially affect HTLF’s financial results, is included in HTLF’s filings with the Securities and Exchange Commission (the "SEC").

ITEM 1. BUSINESS

A. GENERAL DESCRIPTION

Heartland Financial USA, Inc. (individually referred to herein as "Parent Company" and collectively with all its subsidiaries and affiliates referred to herein as "HTLF," "we," "us," or "our") is a bank holding company registered under the Bank Holding Company Act of 1956, as amended (the "BHCA"), that was originally formed in the state of Iowa in 1981 and reincorporated in the State of Delaware in 1993. HTLF's headquarters are located at 1800 Larimer Street, Suite 1800, Denver, Colorado. Our website address is www.htlf.com. You can access, free of charge, our filings with the SEC, including our Annual Report on Form 10-K, our quarterly reports on Form 10-Q, current reports on Form 8-K and any other amendments to those reports, at our website under the Investor Relations tab, or at the SEC website at www.sec.gov. Proxy materials for our upcoming 2023 Annual Shareholders Meeting to be held on June 14, 2023, will be available electronically via a link on our website at www.htlf.com.

At December 31, 2022, HTLF had total assets of $20.24 billion, total loans held to maturity of $11.43 billion and total deposits of $17.51 billion. HTLF’s total stockholders' equity as of December 31, 2022, was $1.74 billion. Net income available to common stockholders for 2022 was $204.1 million.

HTLF conducts its banking business through multiple community banks (referred to herein collectively as the "Banks" "Bank Markets", "Bank Divisions") operating as either independent entities or independently branded divisions in the states of Iowa, Illinois, Wisconsin, New Mexico, Arizona, Montana, Colorado, Minnesota, Kansas, Missouri, Texas and California. In the fourth quarter of 2021, the HTLF Board of Directors approved a plan to consolidate its eleven bank charters into a single Colorado based charter, named "HTLF Bank," (formerly named Citywide Banks). When the charter consolidation project is completed, the Banks will operate as divisions of HTLF Bank and retain their separate bank brands.

During 2022, five charters were consolidated into HTLF Bank. Subsequent to December 31, 2022, one additional charter consolidation was completed. The consolidation of the remaining five charters is expected to be completed by December 31, 2023. Each Bank serves a separate state banking market except for Kansas and Missouri, which constitute a single banking market.

All Banks are insured and regulated by the Federal Deposit Insurance Corporation (the "FDIC"). As of December 31, 2022, the Banks and their respective bank brands listed below, operated a total of 119 banking locations:

- HTLF Bank, Denver, Colorado, is chartered under the laws of the state of Colorado. The following charters have been consolidated into HTLF Bank and now operate as divisions of HTLF Bank:
    - Illinois Bank & Trust, headquartered in Rockford, Illinois
    - Arizona Bank & Trust, headquartered in Phoenix, Arizona
    - Citywide Banks, headquartered in Denver, Colorado
    - Minnesota Bank & Trust, headquartered in Edina, Minnesota, and
    - Premier Valley Bank, headquartered in Fresno, California
- Dubuque Bank and Trust Company, Dubuque, Iowa, is chartered under the laws of the state of Iowa.
- Wisconsin Bank & Trust, headquartered in Madison, Wisconsin
- New Mexico Bank & Trust, Albuquerque, New Mexico, is chartered under the laws of the state of New Mexico.
- Rocky Mountain Bank, Billings, Montana, is chartered under the laws of the state of Montana.
- Bank of Blue Valley, Merriam, Kansas, is chartered under the laws of the state of Kansas.
- First Bank & Trust, Lubbock, Texas, is chartered under the laws of the state of Texas.

In February 2023, the charter of Wisconsin Bank & Trust was consolidated into HTLF Bank, and as of that date, Wisconsin Bank & Trust began operating as a division of HTLF Bank.

HTLF uses the "HTLF" brand to refer to Parent Company activities and operations and certain limited common products and services offered by all Banks, such as HTLF Retirement Plan Services. In addition, the relationship of each Bank to HTLF is communicated using the phrase "Powered by HTLF".

In addition, as of December 31, 2022, HTLF had trust preferred securities issued through special purpose trust subsidiaries formed for the purpose of offering cumulative capital securities including Heartland Financial Statutory Trust IV, Heartland Financial Statutory Trust V, Heartland Financial Statutory Trust VI, Heartland Financial Statutory Trust VII, Morrill Statutory Trust I, Morrill Statutory Trust II, Sheboygan Statutory Trust I, CBNM Capital Trust I, Citywide Capital Trust III, Citywide Capital Trust IV, Citywide Capital Trust V, OCGI Statutory Trust III, OCGI Capital Trust IV, BVBC Capital Trust II and BVBC Capital Trust III. All of HTLF's subsidiaries were wholly owned as of December 31, 2022.

The principal business of our Banks consists of making loans to and accepting deposits from businesses and consumers. Our Banks provide full service commercial and consumer banking in their communities. Both our loans and our deposits are generated primarily through strong banking knowledge and customer relationships, guided by management that is actively involved in the community. Our lending and investment activities are funded primarily by core deposits. This stable source of funding is achieved by developing banking relationships with customers through value-added product offerings, competitive market pricing, convenience and high-touch personal service. Deposit products, which are insured by the FDIC to the full extent permitted by law, include checking and other demand deposit accounts, NOW accounts, savings accounts, money market accounts, certificates of deposit, individual retirement accounts and other time deposits. Loan products include commercial and industrial, commercial real estate, agricultural, small business, real estate mortgage, consumer, and credit cards for commercial, business and personal use.

We enhance the customer-centric local services in our Bank Markets with a full complement of value-added services, including wealth management, investment and retirement plan services. We provide technology solutions that provide our customers convenient electronic banking services and client access to account information through business and personal online banking, mobile banking, bill payment, remote deposit capture, treasury management services, credit and debit cards and automated teller machines.

Business Model and Operating Philosophy

HTLF's operating philosophy is to maximize the benefits of our community-focused banking model by:

1. Creating strong community ties through customer-centric local bank delivery of products and services.
    - Deeply rooted local management and advisory boards
    - Local community knowledge and relationships
    - Local decision-making
    - Locally recognized brands
    - Commitment to an exceptional customer experience

2. Providing extensive banking services to increase revenue.
    - Full range of commercial products and services, including government guaranteed lending and treasury management services
    - Specialized industries division and capital markets team providing middle-market lending expertise
    - Providing added client value through consultative relationship building
    - Convenient and competitive consumer products and services
    - Private client services, including investment management, trust, retirement plans, brokerage services and investment services
    - Residential mortgage origination and referrals

3. Centralizing back-office operations for efficiency and enhancing the customer experience.
    - Leverage expertise across all Banks
    - Contemporary technology for account processing and delivery systems
    - Efficient back-office support for loan processing and deposit operations
    - Centralized customer relationship management systems
    - Centralized loan underwriting and collections
    - Centralized loss management and risk analysis
    - Centralized support for other professional services, including information technology, human resources, marketing, legal, compliance, finance, administration, internal audit, risk management, investment management, customer support and facilities

We believe the personal and professional service we offer to our customers provides an appealing alternative to the service provided by the "megabanks" or large regional banks. While we are committed to a community-focused banking philosophy, we believe our size, combined with our robust suite of financial products and services, allows us to effectively compete in our respective market areas. To remain price competitive, we also believe that we must manage expenses and gain economies of scale by centralizing back office support functions. We have standard operating policies regarding asset/liability management, liquidity management, compliance and risk management, investment management, credit risk, and deposit structure management, information technology management and security management.

Another component of our operating strategy is to encourage all directors, officers and employees to maintain a strong ownership interest in HTLF. We have established ownership guidelines for our directors and executive leadership team. We also have a stock compensation plan and an employee stock purchase plan.

We are deeply committed to our communities through lending, investments and service activities such as active participation by our employees, officers and board members in local charitable, civic, school, religious and community development activities.

Market Focus, Branch Optimization, and Acquisition Strategies

In addition to our focus on organic growth, HTLF will continue to evaluate opportunities to augment our business by acquiring businesses that complement or supplement our current banking strategy. This includes transactions that increase penetration in existing geographic Bank Markets and expansion into adjacent markets. In addition to acquisitions of established financial institutions, primarily commercial banks, HTLF will consider acquisitions of fee income businesses that complement and build on our existing businesses, or further meet the needs of our customers. HTLF is also exploring the expansion of its lending products and services through the acquisition of specialty lending, equipment finance, leasing and other services to expand our product and service offerings. All acquisition opportunities are evaluated using a range of financial and non-financial criteria, including earnings per share accretion, tangible equity earn back, internal rate of return, operational synergies and strategic fit.

We have focused our investments and previous acquisitions on markets with growth potential in the Midwestern, Southwestern and Western regions of the United States. Our overall strategy is to balance the growth in our Southwestern and Western Bank Markets with the stability of our Midwestern Bank Markets.

Due to changes in our customers' banking preferences and behaviors as well as the competitive landscape, we have selectively sold, consolidated and closed branches. We anticipate these strategic activities will provide additional resources to support our investments in areas that enhance our customer relationships and experiences, while fueling organic growth opportunities. As a result of our ongoing branch optimization, we may complete additional, selective reductions in our branch network in the future.

Primary Business Lines

General

We are engaged in the business of banking, with the expertise to serve a wide range of businesses and the scale to compete at many levels. Our Banks provide a wide range of commercial, small business and consumer banking services to businesses, including public sector and non-profit entities, and to individuals. Each Bank can also leverage a centralized team of middle-market lenders with expertise in specific industries and loan structures. We have a broad customer base and do not depend upon a small number of customers. Our extensive customer base across our Bank Markets spans a multitude of diversified industries. We provide multiple service delivery channels, including online banking, mobile/remote banking and telephone banking. Our Banks provide a comprehensive suite of banking products and services comprised of competitively priced deposit and credit offerings, along with treasury management, wealth management and retirement plan services.

Our bankers actively solicit new and established businesses in their respective business communities. We believe that the Banks are successful in attracting new customers in their markets through knowledgeable and experienced bankers, professional high-touch service, a suite of comprehensive credit and non-credit banking products and services, competitive pricing, convenient locations and proactive communications. We deliver the following products and services through our Bank Markets:

Commercial Banking

Our Banks have a strong commercial loan base generated primarily through strong reputations, business networks and personal relationships in the communities they serve. The current portfolios in each Bank Market reflect the businesses in those communities and include a wide range of business loans, including lines of credit for working capital and operational purposes. Commercial real estate loans, which include owner occupied and non-owner occupied real estate loans, are generally term loans originated for the acquisition of real estate and equipment. Although most loans are made on a secured basis, loans may be made on an unsecured basis when warranted by the overall financial condition and cash flow of the borrower. Generally, terms of commercial and commercial real estate loans range from one to five years.

Commercial bankers provide a consultative customer-centric approach utilizing the comprehensive suite of banking products and services to deliver solutions designed to fit the objectives of the client in an organized and efficient manner. Bankers are knowledgeable and experienced in providing consultative solutions to clients to assist them in accomplishing their business strategies and objectives. The suite of banking products and services offered are highly competitive and can be tailored to fit the objectives of the client.

Closely integrated with our lending activities is a significant emphasis on treasury management services that enhance our business clients' ability to monitor, accumulate and disburse funds efficiently. Our treasury management services have five basic functions:

- collection
- disbursement
- management of cash
- information reporting
- fraud prevention

Our treasury management services suite includes online banking and bill payment, automated clearing house ("ACH") services, wire transfer, zero balance accounts, transaction reporting, lock box services, remote deposit capture, accounts receivable solutions, commercial purchasing cards, merchant credit card services, investment sweep accounts, reconciliation services, foreign exchange and several fraud prevention services, including check and electronic positive pay services.

Many of the businesses in the communities we serve are small to middle market businesses, and commercial lending to these businesses has been, and continues to be, an emphasis for the Banks. The table below shows the certifications granted to the Banks from the United States Small Business Administration ("SBA") as of December 31, 2022.

Bank	SBA Express Lender	SBA Preferred Lender	SBA Export Express
HTLF Bank	X		
Dubuque Bank and Trust Company	X		
Wisconsin Bank & Trust	X	X	
New Mexico Bank & Trust	X	X	X
Rocky Mountain Bank	X	X	
Bank of Blue Valley	X	X	X
First Bank & Trust	X	X	

Our Banks participated in the Paycheck Protection Program ("PPP"), which provided small businesses with funding to maintain payroll and cover certain other overhead expenses. PPP loans are 100% SBA guaranteed and borrowers may be eligible to have an amount up to the entire principal balance forgiven and paid by the SBA. PPP loans also carry a zero-risk rating for regulatory capital purposes, and because these loans are 100% guaranteed by the SBA, there is no allowance recorded related to the PPP loans.

Our commercial and commercial real estate loans are primarily made based on the identified cash flow of the borrower and secondarily on the underlying collateral provided by the borrower. We value the collateral for most of these loans based upon its estimated fair market value and require personal guarantees in most instances. The primary repayment risks of commercial and commercial real estate loans are that the cash flow of the borrowers may be unpredictable, and the collateral securing these loans may fluctuate in value.

Lenders in each Bank Market are complemented by HTLF Specialized Industries, a centralized team of middle-market lenders focused on specific industries and more complex loan structures. The expertise of this team includes the commercial real estate, healthcare, and food and agribusiness industries, as well as customer interest rate swaps, loan syndications and franchise finance.

With the oversight of our centralized credit administration group, our credit risk management process is governed by our commercial and consumer loan policies which are governed by our risk appetite and establish a framework for credit and underwriting standards across the company. Our loan policies establish underwriting standards in alignment with safe and sound credit decision making and in accordance with regulatory guidelines as applicable to our portfolio (e.g., Real Estate

Lending Standards, Supervisory Loan-to-Value Limits). Centralized staff in credit administration assist our commercial lending officers in the analysis, underwriting of credit and facilitation of the credit approval process.

In addition to the lending personnel of the Banks, our internal loan review department, which is overseen by the Chief Risk Officer, independently validates credit risk rating accuracy and analyzes the credit risk of the Banks. To reduce the risk of loss, we have processes to help identify problem loans early, while working with customers and aggressively seeking resolution of credit problems.

HTLF has a special assets group which focuses on providing guidance to our customers experiencing challenges and resolving problem assets. Commercial or agricultural loans in a workout status or default are assigned to the special assets group which is also responsible for marketing repossessed properties.

Agricultural Loans

Agricultural loans are emphasized by those Bank Markets with operations in and around rural areas, including Dubuque Bank and Trust Company, Premier Valley Bank, Rocky Mountain Bank, Wisconsin Bank & Trust's Monroe and Platteville branches, New Mexico Bank & Trust’s Clovis banking offices, Bank of Blue Valley's northeast Kansas banking offices, and First Bank & Trust. We also have a Food & Agribusiness specialized industry group, which consists of specialized lenders with expert knowledge who focus on loan opportunities to larger commercial agricultural growers, producers and food manufacturers within our Bank Markets and provide expert knowledge to assist our commercial bankers with loan opportunities.

Agricultural loans constituted approximately 8% of our total loan portfolio at December 31, 2022. In making agricultural loans, we have policies designating a primary lending area for each Bank, in which most of its agricultural operating and real estate loans are made. Under this policy, loans in a secondary market area must be secured by real estate.

Agricultural loans, many of which are secured by crops, machinery and real estate, are provided to finance capital improvements and farm operations as well as acquisitions of livestock and machinery. Agricultural loans present unique credit risks relating to potentially adverse weather conditions, loss of livestock due to disease or other factors, declines in market prices for agricultural products and the impact of local and federal government regulations. The repayment of agricultural loans is dependent upon the profitable operation or management of the agricultural entity.

In underwriting agricultural loans, the lending officers of the Banks work closely with their customers to review budgets and cash flow projections for the ensuing crop year. These budgets and cash flow projections are monitored closely during the year and reviewed with the customers at least annually. The Banks also work closely with governmental agencies, including the United States Department of Agriculture ("USDA") and the Farm Services Agency ("FSA"), to help agricultural customers obtain credit enhancement products such as loan guarantees, interest assistance and crop insurance.

Small Business Banking

HTLF's Small Business Lending Center is dedicated to serving the credit needs of small businesses with annual sales generally under $5 million. The Small Business Lending Center is designed to provide quick turnaround on small business customer credit requests on a wide variety of credit products and services. We believe that small businesses are an underserved market segment and see additional opportunity in serving this market with competitively priced deposit and loan offerings, convenient electronic banking services, and retirement plan services. The Banks have designated business bankers and branch managers that serve the distinct banking needs of this customer segment.

Residential Real Estate Mortgage Lending

We provide residential real estate mortgage loans to our customers for the purchase or refinancing of single family residential properties. In certain Bank Markets, residential mortgage loans are originated through PrimeWest Mortgage Corporation ("PrimeWest"), a division of First Bank & Trust, and sold to the secondary market with servicing retained. The Banks also provide residential mortgage loans to their customers that are retained and serviced by the originating Bank. In 2022, we began partnering with a third-party mortgage loan provider to facilitate the residential mortgage lending needs of our customers in selected Bank Markets.

Consumer Banking

A wide variety of consumer banking services are delivered through our branches and electronic banking platforms. Services include checking, savings, money market accounts, certificates of deposit, individual retirement accounts ("IRAs") and consumer debit and credit cards. Brokerage services, including fixed rate annuity products are also provided in many locations. Consumer lending services include a broad array of consumer loans, including motor vehicle, home improvement, home equity lines of credit ("HELOC"), fixed rate home equity loans and personal lines of credit.

Our Banks continue to respond to customer preferences to enhance our consumer banking experience through the addition of secure electronic banking options including online account opening and mobile banking. Our consumer banking customers receive high-touch service in our branches and further enjoy the convenience of online bill pay, 24-hour ATM availability, mobile deposit, and 24-hour access to account detail. As technology advances, we are committed to offering our customers the convenience of online, ATM and mobile delivery channels in a secure manner.

Wealth Management and Retirement Plan Services
In most Bank Markets, wealth management, trust, and securities brokerage services are offered. HTLF also provides retirement plan services to business clients, including 401(k), 403(b) and profit sharing plans. As of December 31, 2022, total trust assets under management were $3.62 billion.

HTLF has contracted with LPL Financial Institution Services, a division of LPL Financial, to operate independent securities brokerage offices at the majority of the Banks. Through LPL Financial, HTLF offers a full array of investment services including mutual funds, annuities, individual retirement products, education savings products, and brokerage services.

B. MARKET AREAS

HTLF is a geographically diversified bank holding company with a Midwestern, Western and Southwestern franchise, all of which are impacted by regional and macroeconomic fluctuations. The following table sets forth certain information about the offices and total customer deposits of each of the Bank Markets as of December 31, 2022, dollars in thousands. The table below excludes $1.07 billion of deposits not allocated to a Bank Market.

State	Region	Bank	Total Deposits	Number of Locations	Market Areas Served
IA	Midwest	Dubuque Bank and Trust Company	$ 1,768,057	6	Dubuque MSA
				1	Des Moines MSA
				1	Cedar Rapids MSA
IL	Midwest	Illinois Bank & Trust(1)	$ 1,427,277	5	Rockford MSA
				1	Jo Daviess County
WI	Midwest	Wisconsin Bank & Trust	$ 1,250,251	3	Madison MSA
				1	Green Bay MSA
				4	Sheboygan MSA
				1	Grant County
				1	Green County
				1	Milwaukee County
NM	Southwest	New Mexico Bank & Trust	$ 2,392,887	9	Albuquerque MSA
				2	Clovis MSA
				2	Santa Fe MSA
				2	Colfax County
				1	Guadalupe County
				1	Los Alamos County
				1	Quay County
				2	Rio Arriba County
				1	Union County
AZ	Southwest	Arizona Bank & Trust(1)	$ 1,523,001	9	Phoenix MSA
MT	West	Rocky Mountain Bank	$ 646,636	2	Billings MSA
				2	Flathead County
				1	Gallatin County
				1	Jefferson County
				1	Ravalli County
				1	Sanders County
				1	Sheridan County

State	Region	Bank	Total Deposits	Number of Locations	Market Areas Served
CO	West	Citywide Banks(1)	$ 2,120,378	10	Denver MSA
				1	Arapahoe County
				2	Boulder County
				1	Eagle County
				1	Grand County
				4	Jefferson County
MN	Midwest	Minnesota Bank & Trust(1)	$ 571,025	2	Minneapolis/St. Paul MSA
KS	Midwest	Bank of Blue Valley	$ 1,239,066	7	Kansas City MSA
				2	Brown County
CA	West	Premier Valley Bank(1)	$ 929,725	1	Fresno MSA
				1	Madera County
				1	Mariposa County
				2	San Luis Obispo County
				1	Tuolumne County
TX	Southwest	First Bank & Trust	$ 2,578,197	7	Lubbock MSA
				1	Bailey County
				1	Ector County
				1	Gray County
				1	Hockley County
				1	Lamb County
				1	Midland County
				1	Mitchell County
				1	Parmer County
				1	Potter County
				1	Scurry County
				1	Taylor County
				1	Yoakum County

(1) Operates as a division of HTLF Bank as of December 31, 2022

C. COMPETITION

We face direct competition for deposits, loans and other financial related services. To compete effectively, grow our market share, maintain flexibility and keep pace with changing client preferences, business and economic conditions, we continuously refine and develop our banking personnel, products and services. We have found the principal methods of competing in the financial services industry are through personal service, expertise, product selection, convenience and technology.

Our Bank Markets are highly competitive, and our competitors are comprised of other commercial banks, credit unions, thrifts, stockbrokers, mutual fund companies, mortgage companies and loan production offices, insurance companies and online providers and other non-bank financial service companies, including fintech companies. Some of these competitors are local, while others are regional, national or global.

Technological advances have made it possible for our competitors, including nonbank competitors, to offer products and services that were traditionally offered exclusively by banks and for financial institutions and other companies to provide electronic and internet-based financial solutions, including online deposit accounts, electronic payment processing and marketplace lending, without having a physical presence where their customers are located. In addition, many of our non-bank competitors are not subject to the same extensive federal regulations that govern bank holding companies and federally insured banks. In many cases, our competitors have substantially greater resources and lending limits.

We believe we are well positioned to compete for loans effectively through the array and quality of the credit products and services we provide, and the high-touch, customer-centric way in which we provide them. We invest in building long-lasting customer relationships, and our strategy is to serve our customers above and beyond their expectations through excellence in customer service and providing banking solutions that are tailored to our customers' needs. We believe that our long-standing presence and commitment to the communities we serve and the personal service we emphasize enhance our ability to compete favorably in attracting and retaining commercial and consumer customers. We continue to attract deposit-oriented customers by offering personal attention, combined with convenient electronic banking and other technology-based solutions, professional service and competitive interest rates. The breadth of our product suite, coupled with our superior customer service, allows us to compete favorably with our larger competitors.

D. HUMAN CAPITAL

People are our most valuable asset. They are critical in providing the high quality of service and knowledge our clients require and deserve. Accordingly, the attraction, retention and promotion of qualified, engaged and diverse employees is critical to HTLF's success and the growth and preservation of long-term client relationships. HTLF is committed to placing a primary focus on our associates' best interests as part of our evolving human capital strategy. In 2022, we had 91% of employees participate in our annual employee engagement survey, and we achieved our highest average engagement score since inception of the survey process in 2017. On December 31, 2022, HTLF employed 2,002 full-time equivalent employees.

Recruitment and Retention

In response to growing demand for hybrid and remote working options and a tight labor market, we strengthened our employee retention efforts. With the increased demand for talent, we enhanced our recruitment strategies and expanded our recruiting capacity. Given these and other challenges, our 2022 net voluntary turnover ratio was 24.47%. In 2022, we filled 638 positions, of which approximately 200 were filled internally. As of December 31, 2022, there were open requisitions for 88 positions, which was a decrease of 2 positions or 2% from 90 open positions at December 31, 2021. Intensifying wage pressures have also increased compensation, particularly for certain positions.

Employee onboarding and training continues to be delivered virtually, which enables most new hires to be engaged faster to connect with employees beyond just those in their geographic market and to build their skill set to better serve our clients. HTLF delivers a culture session to all new hires to aide them in understanding the importance of who we are and the importance of living our mission, vision, and values.

Competitive Compensation and Benefits

We remain focused on providing market level compensation and benefit packages. HTLF instituted a minimum pay threshold of $15.00 per hour in all Bank Markets to compete with other businesses and banks for entry level talent. We also benchmark our compensation programs annually. Incentive arrangements are evaluated annually to ensure that we reward talent appropriately based on performance and for retention purposes, and we have better aligned and improved our market-based pay practices. We believe that there will continue to be upward market adjustments as demands for greater pay transparency increase. We continue to evaluate pay trends, including geographic pay trends and how they impact remote worker pay, to ensure that compensation remains competitive. Approximately 95% of our employees participate in our 401(k) plan, and effective January 1, 2023, we increased the employer match to the plan. We offer an employee stock purchase plan and buy down of student debt in exchange for unused paid time off. Employees are also active participants in our wellness platform, which includes a weight loss program, smoking cessation program, a program offering tips on how to stay healthy and resources for home schooling. We offer comprehensive healthcare options including HTLF making annual health savings account contributions.

Investment in Employee Development

We invest in our talent and provide meaningful development opportunities. Our training and education programs start on the employee's first day with the basics of our culture and use of systems. There are more extensive programs for our Commercial and Consumer lending teams that educate them on products, services, sales and systems. Our goal is to help the employee acclimate quickly to HTLF so that they can focus on performing in their roles effectively and servicing customers. In 2022, we piloted the first leadership training program for high potential employees, "Ascend." All employees participate in our annual computer-based course work, which includes a suite of human resources and compliance related courses to enhance awareness and understanding. We also invest in educational and professional certification opportunities for our employees to augment subject matter expertise in certain roles.

HTLF has implemented robust education for our consumer and commercial teams to enhance their ability to serve our customers using a values based approach.

Diversity and Inclusion

HTLF is committed to seeking diversity and inclusion at all levels of the organization beginning with our Board of Directors. Our diversity statement reflects both our current culture and what we aspire to be:

HTLF is unique and so are you. We all come from different backgrounds and experience that help shape our company values. Our values are rooted in the belief that respect, equality, and inclusiveness make us stronger together. The variety of experiences and lifestyles we bring to work every day provides insights that help us better understand each other and our customers.

HTLF's Chief Diversity & Inclusion Officer and Diversity Advisory Council were appointed to oversee, advise and connect Diversity, Equity, and Inclusion (DEI) activities to a broader business-driven, results-oriented strategy, as well as to align with our corporate values and the future of HTLF. The Diversity Advisory Council has engaged guest speakers to further the conversation as we work to educate our teams and enhance inclusiveness. The council established three Employee Business Resource Groups focused on cultural minorities, women and veterans, and made available a more expansive DEI training to all employees.

E. SUPERVISION AND REGULATION

General

Financial institutions, their holding companies, and their affiliates are extensively regulated and supervised under federal and state law. As a result, the growth and earnings performance of HTLF may be affected not only by management decisions and general economic conditions, but also by the requirements of federal and state statutes and by the regulations, supervisory expectations and policies of various bank regulatory authorities. Both the scope of the laws and regulations and the intensity of the supervision to which HTLF is subject have increased in recent years because of the increase in HTLF's asset size and other factors such as technological and market changes. Regulatory enforcement and fines have also increased across the banking and financial services sector. HTLF expects the scope of regulation and the intensity of supervision will continue to be extensive including increased scrutiny and possible denials of bank mergers and acquisitions by federal bank regulators.

As a bank holding company with subsidiary banks chartered under the laws of multiple different states, HTLF is regulated by the Board of Governors of the Federal Reserve System (the "Federal Reserve"). Each of the Banks is regulated by the FDIC as its principal federal regulator and one of the following as its state regulator: the Colorado Department of Regulatory Agencies, Division of Banking (the "Colorado Division"); the Iowa Superintendent of Banking (the "Iowa Superintendent"); the State Bank Commissioner of Kansas Division of Banking (the "Kansas Division"); the Montana Division of Banking and Financial Institutions (the "Montana Division"); the New Mexico Financial Institutions Division (the "New Mexico FID"); the Texas Department of Banking (the "Texas Division"); and the Division of Banking of the Wisconsin Department of Financial Institutions (the "Wisconsin DFI"). Upon completion of charter consolidation, the number of state regulators will decrease to one, which will be the Colorado Division.

Federal and state laws and regulations generally applicable to financial institutions regulate, among other things, the scope of business, the kinds and amounts of investments, reserve requirements, capital levels, the establishment of branches, mergers and consolidations and the payment of dividends. This system of supervision and regulation establishes a comprehensive framework for the respective operations of HTLF and its subsidiaries and is intended primarily for the protection of the FDIC-insured deposits and depositors, consumers, the stability of the financial system in the United States, and the health of the national economy, rather than stockholders.

Federal and state banking regulators regularly examine HTLF and its subsidiaries to evaluate their financial condition and monitor their compliance with laws and regulatory policies. Following those exams, HTLF and the Banks are assigned supervisory ratings. These ratings are considered confidential supervisory information and disclosure to third parties is not allowed without permission of the issuing regulator. Violations of laws and regulations or deemed deficiencies in risk management practices may be incorporated into these supervisory ratings. A downgrade in these ratings could limit HTLF’s ability to pursue acquisitions or conduct other expansionary activities for a period of time, require new or additional regulatory approvals before engaging in certain other business activities or investments, affect a subsidiary bank’s deposit insurance assessment rate, and impose additional recordkeeping and corporate governance requirements, as well as generally increase regulatory scrutiny of HTLF.

The federal bank regulatory agencies have broad authority to issue orders to depository institutions and their holding companies prohibiting activities that constitute violations of law, rule, regulation, or administrative order, or that represent unsafe or unsound banking practices, as determined by the federal banking agencies. The federal banking agencies also are empowered to require affirmative actions to correct any violation or practice; issue administrative orders that can be judicially enforced; direct increases in capital; limit dividends and distributions; restrict growth; assess civil money penalties against institutions or individuals who violate any laws, regulations, orders, or written agreements with the agencies; order termination of certain activities of holding companies or their non-bank subsidiaries; remove officers and directors; order divestiture of ownership or control of a non-banking subsidiary by a holding company; or terminate deposit insurance and appoint a conservator or receiver.

The Consumer Financial Protection Bureau ("CFPB") has broad rulemaking authority over a wide range of federal consumer protection laws applicable to the business of the Banks and some of our other operating subsidiaries. The charter consolidation of our Banks into HTLF Bank will subject us to CFPB examination and supervision relating to compliance with federal consumer protection laws and regulations. Our non-bank subsidiaries are subject to regulation by their functional regulators, including applicable state finance and insurance agencies.

Banking and other financial services statutes, regulations and policies are continually under review by Congress, state legislatures and federal and state regulatory agencies. In addition to laws and regulations, state and federal bank regulatory agencies may issue policy statements, interpretive letters and similar written guidance applicable to HTLF and its subsidiaries. Any change in the statutes, regulations or regulatory policies including changes in their interpretation or implementation, may have a material effect on the business of HTLF and its subsidiaries.

This section summarizes material elements of the regulatory framework that applies to HTLF and its subsidiaries. It does not describe all applicable statutes, regulations and regulatory policies that apply, nor does it disclose all the requirements of the statutes, regulations and regulatory policies requirements that are described.

Regulation of HTLF

General

HTLF, as the sole shareholder of HTLF Bank, Dubuque Bank and Trust Company, New Mexico Bank & Trust, Rocky Mountain Bank, Wisconsin Bank & Trust, Bank of Blue Valley and First Bank & Trust, is a bank holding company. As a bank holding company, HTLF is registered with, and is subject to regulation, supervision and examination by, the Federal Reserve under the BHCA. In accordance with Federal Reserve policy, HTLF is expected to act as a source of financial and managerial strength to the Banks and to commit resources to support the Banks in circumstances where HTLF might not otherwise do so. In addition, since the Banks are under the common control of HTLF, the FDIC may look to the assets of the Banks to offset losses incurred as a result of the failure of one or more of the other Banks. Under the Dodd-Frank Act, the FDIC also has backup enforcement authority over a depository institution holding company, such as HTLF, if the conduct or threatened conduct of the holding company poses a risk to the Deposit Insurance Fund, although such authority may not be used if the holding company is in sound condition and does not pose a foreseeable and material risk to the insurance fund.

Under the BHCA, HTLF is subject to examination by the Federal Reserve. Supervision and examinations are confidential, and the outcomes of these actions will not be made public. HTLF is also required to file with the Federal Reserve periodic reports of HTLF's operations and such additional information regarding HTLF and its subsidiaries as the Federal Reserve may require.

Additionally, bank holding companies that meet certain eligibility requirements prescribed by the BHCA may elect to operate as financial holding companies which may engage in, or own shares in companies engaged in, a wider range of nonbanking activities. As of the date of this Annual Report on Form 10-K, HTLF has not applied for approval to operate as a financial holding company.

Acquisitions, Activities and Change in Control

Acquisitions of HTLF’s voting stock above certain thresholds may be subject to prior regulatory notice or approval under applicable federal banking laws. Investors are responsible for ensuring that they do not, directly or indirectly, acquire shares of our stock in excess of the amount that can be acquired without regulatory approval or notice under the BHCA and the Change in Bank Control Act.

The BHCA generally requires the prior approval of the Federal Reserve before acquiring direct or indirect ownership or control of more than 5% of the voting shares of an additional bank or bank holding company, or to merge or consolidate with another bank holding company. The Bank Merger Act generally requires our Banks to obtain prior regulatory approval to merge, consolidate with, acquire substantially all the assets of, or assume deposits of another bank. We must also be well-capitalized and well-managed in order to acquire a bank located outside of our home state.

Capital Requirements

Bank holding companies and their subsidiary financial institutions are required to maintain minimum risk-based and leverage capital ratios, as well as a capital conservation buffer, pursuant to regulations adopted by the Federal Reserve and FDIC, as applicable, to implement the Basel III capital framework ("Basel III Rule"). These requirements include quantitative measures that assign risk weightings to assets and off-balance sheet items and define and set minimum regulatory capital ratios. Failure to meet minimum capital requirements can initiate certain mandatory, and possible additional discretionary, actions by the federal banking regulators that, if undertaken, could have a material adverse effect on the financial condition and results of operations of a bank holding company and its subsidiaries. Federal banking regulators are required by law to take prompt action when institutions are viewed as engaging in unsafe or unsound practices or do not meet certain minimum capital requirements. In addition to other potential actions, failure to meet regulatory capital requirements would result in limitations on capital distributions as well as executive bonuses. The Federal Reserve, FDIC and applicable state banking regulators may determine that a banking organization, based on its size, complexity or risk profile must maintain a higher level of capital in order to operate in a safe and sound manner.

The regulations of the Federal Reserve and the FDIC as the primary regulator of state banks, separate capital into three components, Common Equity Tier 1 ("CET 1") capital, Tier 1 capital and Tier 2 capital, and test these capital components based on their ratio to assets and to "risk weighted assets." CET 1 capital consists of common stockholders' equity. Tier 1 capital generally consists of (a) common stockholders' equity, qualifying noncumulative preferred stock, and to the extent they do not exceed 25% of total Tier 1 capital, qualifying cumulative perpetual preferred stock and, for some institutions, trust preferred securities, and (b) among other things, goodwill and specified intangible assets, credit enhancing strips and investments in unconsolidated subsidiaries. Tier 2 capital includes, to the extent not in excess of Tier 1 capital, the allowance for credit losses, other qualifying perpetual preferred stock, certain hybrid capital instruments, qualifying term subordinated debt and certain trust preferred securities not otherwise included in Tier 1 capital. Risk weighted assets include the sum of specific assets of an institution multiplied by risk weightings for each asset class.

The Basel III Rule generally requires that CET 1 capital include the effects of other comprehensive income adjustments, such as gains and losses on securities held to maturity, but allow institutions, such as HTLF, to make a one-time election not to include those effects. HTLF and its Banks elected not to include the effects of other comprehensive income in CET 1 capital.

Under the Basel III Rule, HTLF and the Banks are required to comply with a leverage requirement consisting of a minimum ratio of Tier 1 capital to total assets (the "Leverage Ratio") of 4.0%. The Basel III Rule also requires HTLF and the Banks to maintain a capital conservation buffer of 2.5% on top of the minimum risk-weighted asset ratios designed to absorb losses during periods of economic stress and composed entirely of common equity Tier 1 capital.

The following table presents the minimum regulatory capital ratios, minimum ratio plus capital conservation buffer, and well-capitalized minimums that HTLF and the Banks must satisfy.

Ratio	Entity	Minimum Regulatory Capital Ratio %	Minimum Ratio + Capital Buffer %(1)	Well-Capitalized Minimum %(2)
CET 1 risk-based capital	Consolidated	4.50	7.00	N/A
	Bank	4.50	7.00	6.50
Tier 1 risk-based capital	Consolidated	6.00	8.50	6.00
	Bank	6.00	8.50	8.00
Total risk-based capital	Consolidated	8.00	10.50	10.00
	Bank	8.00	10.50	10.00
Tier 1 leverage ratio	Consolidated	4.00	N/A	N/A
	Bank	4.00	N/A	5.00

(1) Reflects a capital conservation buffer of 2.5%

(2) Reflects the well-capitalized standard applicable to HTLF under Federal Reserve Regulation Y and the well-capitalized standard applicable to the Banks.

Failure to be well-capitalized or to meet minimum capital requirements could result in certain mandatory and possible additional discretionary actions by regulators that, if undertaken, could have an adverse material effect on our operations or financial condition. For example, a financial institution generally must be "well-capitalized" to engage in acquisitions, and well-capitalized institutions may qualify for exemptions from prior notice or application requirements otherwise applicable to certain types of activities and may qualify for expedited processing of other required notices or applications. In addition, only a well-capitalized depository institution may accept brokered deposits without prior regulatory approval. Failure to be well-capitalized or to meet minimum capital requirements could also result in restrictions on HTLF’s or the Banks’ ability to pay dividends or otherwise distribute capital. See the discussion of "Capital Resources" in Management’s Discussion and Analysis of Financial

Condition and Results of Operations. As of December 31, 2022, HTLF had regulatory capital in excess of the Federal Reserve requirements for well-capitalized bank holding companies.

Stress Testing
The Dodd-Frank Act requires certain institutions to conduct an annual "stress test" of capital and consolidated earnings and losses under a base case and two severely adverse stress scenarios. The Economic Growth, Regulatory Relief and Consumer Protection Act (the "Economic Growth Act") raised the asset threshold for institutions subject to these stress testing requirements from $10 billion in average total consolidated assets to $100 billion for bank holding companies. As a result, HTLF, as well as its Banks, are no longer subject to the Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") stress testing requirements or any requirement to publish the results of stress testing. Despite elimination of this requirement, HTLF continues to perform certain stress tests internally and incorporate the economic models and information developed through its stress testing program into its risk management, strategic and capital planning activities.

Dividend Payments
HTLF's ability to pay dividends to its stockholders may be affected by both general corporate law consideration, minimum regulatory capital requirements and policies of the Federal Reserve applicable to bank holding companies. As a Delaware corporation, HTLF is subject to the limitations of the Delaware General Corporation Law (the "DGCL"), which allows HTLF to pay dividends only out of its surplus (as defined and computed in accordance with the provisions of the DGCL) or, if HTLF has no such surplus, out of its net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year. Federal Reserve policy provides that a bank holding company should not pay cash dividends unless (1) its net income over the last four quarters (net of dividends paid) is sufficient to fully fund the dividends, (2) the prospective rate of earnings retention appears consistent with the capital needs, asset quality, and overall financial condition of the bank holding company and its subsidiaries and (3) the bank holding company will continue to meet minimum required capital adequacy ratios. The policy also provides that a bank holding company should inform the Federal Reserve reasonably in advance of declaring or paying a dividend that exceeds earnings for the period for which the dividend is being paid or that could result in a material adverse change to the bank holding company’s capital structure. Bank holding companies also are expected to consult with the Federal Reserve before materially increasing dividends. The Federal Reserve could prohibit or limit the payment of dividends by a bank holding company if it determines that payment of the dividend would constitute an unsafe or unsound practice.

Regulation of the Banks

General
All the Banks are state chartered, non-member banks, which means that they are all formed under state law and are not members of the Federal Reserve System. As a result, each Bank is subject to direct regulation by the banking authorities in the state in which it was chartered, as well as by the FDIC as its primary federal regulator.

HTLF Bank is a Colorado-chartered bank. As a Colorado-chartered bank, HTLF Bank is subject to the examination, supervision, reporting and enforcement requirements of the Colorado Division, the chartering authority for Colorado banks.

Dubuque Bank and Trust Company is an Iowa-chartered bank. As an Iowa-chartered bank, Dubuque Bank and Trust Company is subject to the examination, supervision, reporting and enforcement requirements of the Iowa Superintendent, the chartering authority for Iowa banks.

Wisconsin Bank & Trust is a Wisconsin-chartered bank. As a Wisconsin-chartered bank, Wisconsin Bank & Trust is subject to the examination, supervision, reporting and enforcement requirements of the Wisconsin DFI, the chartering authority for Wisconsin banks.

New Mexico Bank & Trust is a New Mexico-chartered bank. As a New Mexico-chartered bank, New Mexico Bank & Trust is subject to the examination, supervision, reporting and enforcement requirements of the New Mexico FID, the chartering authority for New Mexico banks.

Rocky Mountain Bank is a Montana-chartered bank. As a Montana-chartered bank, Rocky Mountain Bank is subject to the examination, supervision, reporting and enforcement requirements of the Montana Division, the chartering authority for Montana banks.

Bank of Blue Valley is a Kansas-chartered bank. As a Kansas-chartered bank, Bank of Blue Valley is subject to the examination, supervision, reporting and enforcement requirements of the Kansas Division, the chartering authority for Kansas banks.

First Bank & Trust is a Texas-chartered bank. As a Texas-chartered bank, First Bank & Trust is subject to the examination, supervision, reporting and enforcement requirements of the Texas Division, the chartering authority for Texas banks.

Deposit Insurance

The deposits of each of the Banks are insured by the Depositors Insurance Fund ("DIF") up to the standard maximum deposit insurance amount of $250,000 per depositor. As FDIC-insured institutions, the Banks are required to pay deposit insurance premium assessments to the FDIC using a risk-based assessment system based upon average total consolidated assets minus tangible equity of the insured bank. The FDIC has authority to raise or lower assessment rates on insured deposits in order to achieve statutorily required reserve ratios in the DIF and to impose special additional assessments. On October 18, 2022, the FDIC finalized a rule that would increase initial base deposit insurance assessment rates by 2 basis points, beginning with the first quarterly assessment period of 2023.

Supervisory Assessments

Each of the Banks is required to pay supervisory assessments to its respective state banking regulator to fund the operations of that agency. In general, the amount of the assessment is calculated based on each institution's total assets. During 2022, the Banks paid supervisory assessments totaling $1.7 million.

Prompt Corrective Action

The Federal Deposit Insurance Corporation Improvement Act of 1991 ("FDICIA") requires the federal bank regulatory agencies to take "prompt corrective action" regarding FDIC-insured depository institutions that do not meet certain capital adequacy standards. A depository institution's treatment for purposes of the prompt corrective action provisions depends upon its level of capitalization and certain other factors. An institution that fails to remain well-capitalized becomes subject to a series of restrictions that increase in severity as its capital condition weakens. Such restrictions may include a prohibition on capital distributions, restrictions on asset growth or restrictions on the ability to receive regulatory approval of applications. The FDICIA also provides for enhanced supervisory authority over undercapitalized institutions, including authority for the appointment of a conservator or receiver for the institution. In certain instances, a bank holding company may be required to guarantee the performance of an undercapitalized subsidiary bank's capital restoration plan. The capital adequacy requirements applicable to the Banks are described above under the caption "HTLF-Capital Requirements."

As of December 31, 2022: (i) none of the Banks was subject to a directive from its primary federal regulator to increase its capital; (ii) each of the Banks exceeded its minimum regulatory capital requirements under applicable capital adequacy guidelines; (iii) each of the Banks was "well-capitalized," as defined by applicable regulations; and (iv) none of the Banks were subject to a directive to maintain capital higher than the regulatory capital requirements, as discussed below under the caption "Safety and Soundness Standards."

Liability of Commonly Controlled Institutions

Under federal law, institutions insured by the FDIC may be liable for any loss incurred by, or reasonably expected to be incurred by, the FDIC in connection with the default of commonly controlled FDIC-insured depository institutions or any assistance provided by the FDIC to commonly controlled FDIC-insured depository institutions in danger of default. Because HTLF controls each of the Banks, the Banks are commonly controlled for purposes of these provisions of federal law.

Anti-Money Laundering

The Bank Secrecy Act, the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (the "USA PATRIOT Act") and other related federal laws and regulations require financial institutions, including the Banks, to implement policies and procedures relating to anti-money laundering, customer identification and due diligence requirements and the reporting of certain types of transactions and suspicious activity. The Financial Crimes Enforcement Network rules require financial institutions to develop policies, procedures and practices to prevent and deter money laundering. The program must be a written board-approved program that is reasonably designed to identify and verify the identities of beneficial owners of legal entity customers at the time a new account is opened. The program must, at a minimum (1) provide for a system of internal controls to assure ongoing compliance; (2) designate a compliance officer; (3) establish an ongoing employee training program; and (4) implement an independent audit function to test programs. This rule has increased compliance costs for the Banks.

The Anti-Money Laundering Act of 2020, enacted on January 1, 2021 as part of the National Defense Authorization Act, does not directly impose new requirements on banks, but requires the U.S. Treasury Department to issue National Anti-Money Laundering and Countering the Financing of Terrorism Priorities, and conduct studies and issue regulations that may, over the next few years, significantly alter some of the due diligence, recordkeeping and reporting requirements that the Bank Secrecy Act and USA PATRIOT Act impose on banks. The Anti-Money Laundering Act of 2020 also contains provisions that promote increased information-sharing and use of technology and increases penalties for violations of the Bank Secrecy Act and includes whistleblower incentives, both of which could increase the prospect of regulatory enforcement.

Office of Foreign Assets Control Regulation

The U.S. Department of the Treasury's Office of Foreign Assets Control, or "OFAC," is responsible for administering economic sanctions that affect transactions with designated foreign countries, nationals and others, as defined by various Executive Orders and Acts of Congress. OFAC-administered sanctions take many different forms. For example, sanctions may include: (1) restrictions on trade with or investment in a sanctioned country, including prohibitions against direct or indirect imports from and exports to a sanctioned country and prohibitions on U.S. persons engaging in financial transactions relating to, making investments in, or providing investment-related advice or assistance to, a sanctioned country; and (2) a blocking of assets in which the government or "specially designated nationals" of the sanctioned country have an interest, by prohibiting transfers of property subject to U.S. jurisdiction (including property in the possession or control of U.S. persons). OFAC also publishes lists of persons, organizations, and countries suspected of aiding, harboring or engaging in terrorist acts, known as Specially Designated Nationals and Blocked Persons. Blocked assets (e.g., property and bank deposits) cannot be paid out, withdrawn, set off or transferred in any manner without a license from OFAC. Failure to comply with these sanctions could have serious legal and reputational consequences.

Dividend Payments

HTLF is a legal entity separate and distinct from its banking and non-banking subsidiaries. The primary source of funds for HTLF is dividends from the Banks. In general, the Banks may only pay dividends either out of their net income after any required transfers to surplus or reserves have been made or out of their retained earnings.

The payment of dividends by any financial institution is limited by the requirement to maintain adequate capital pursuant to applicable capital adequacy guidelines and regulations, and a financial institution generally is prohibited from paying any dividends if, following payment thereof, the institution would be undercapitalized. As described above, each of the Banks exceeded its minimum capital requirements under applicable guidelines as of December 31, 2022.

As of December 31, 2022, approximately $403.9 million was available in retained earnings at the Banks for payment of dividends to HTLF under the regulatory capital requirements to remain well-capitalized. Notwithstanding the availability of funds for dividends, however, the FDIC and state regulators may reduce or prohibit the payment of dividends by the Banks.

Transactions with Affiliates

The Federal Reserve regulates transactions among HTLF and its subsidiaries. Generally, the Federal Reserve Act and Regulation W, as amended by the Dodd-Frank Act, limit lending and certain other "covered transactions" as well as other transactions between the Banks and their affiliates, including HTLF and its subsidiaries and for the primary purpose of protecting the interests of the Banks. The aggregate amount of "covered transactions" a Bank may enter into with an affiliate may not exceed 10% of the capital stock and surplus of the Bank. The aggregate amount of "covered transactions" with all affiliates may not exceed 20% of the capital stock and surplus of the Bank.

"Covered transactions" between each Bank and its affiliates are also subject to collateralization requirements and must be conducted on arm's length terms. "Covered transactions" include (a) a loan or extension of credit by a Bank, including derivative contracts, (b) a purchase of securities issued to a Bank, (c) a purchase of assets by a Bank unless otherwise exempted by the Federal Reserve, (d) acceptance of securities issued by an affiliate to the Bank as collateral for a loan, and (e) the issuance of a guarantee, acceptance or letter of credit by a Bank on behalf of an affiliate.

While the quantitative limits and collateral requirement described above are generally not applicable to transactions between Banks, all affiliate transactions, including those between Banks, are subject to safety and soundness requirements, prohibitions on the purchase of low-quality assets, and certain other requirements and most affiliate transactions are required to be on market terms and conditions at least as favorable to the Bank as comparable transactions with non-affiliates.

Insider Transactions

The Banks are subject to certain restrictions imposed by federal law on extensions of credit to HTLF and its subsidiaries, on investments in the stock or other securities of HTLF and its subsidiaries and the acceptance of the stock or other securities of HTLF or its subsidiaries as collateral for loans made by the Banks. Certain limitations and reporting requirements are also placed on extensions of credit by each of the Banks to its directors and officers, to directors and officers of HTLF and its subsidiaries, to principal stockholders of HTLF and to "related interests" of such directors, officers and principal stockholders. In addition, federal law and regulations may affect the terms upon which any person who is a director or officer of

HTLF or any of its subsidiaries or a principal stockholder of HTLF may obtain credit from banks with which the Banks maintain correspondent relationships.

Safety and Soundness Standards

The federal banking agencies have adopted guidelines that establish operational and managerial standards to promote the safety and soundness of federally insured depository institutions. The guidelines set forth standards for internal controls, information systems, internal audit systems, loan documentation, credit underwriting, interest rate exposure, asset growth, compensation, fees and benefits, vendor and model risk management, asset quality and earnings. In general, the safety and soundness guidelines prescribe the goals to be achieved in each area, and each institution is responsible for establishing its own procedures to achieve those goals. If an institution fails to comply with any of the standards set forth in the guidelines, the institution's primary federal regulator may require the institution to submit a plan for achieving and maintaining compliance. If an institution fails to submit an acceptable compliance plan or fails in any material respect to implement a compliance plan that has been accepted by its primary federal regulator, the regulator is required to issue an order directing the institution to cure the deficiency. Until the deficiency cited in the regulator's order is cured, the regulator may restrict the institution's rate of growth, require the institution to increase its capital, restrict the rates the institution pays on deposits or require the institution to take any action the regulator deems appropriate under the circumstances. Noncompliance with the standards established by the safety and soundness guidelines may also constitute grounds for other enforcement action by the federal banking regulators, including cease and desist orders and civil money penalty assessments.

Properly managing risks has been identified as critical to the conduct of safe and sound banking activities and has become even more important as new technologies, product innovation, reliance on third-party application, and the size and speed of financial transactions have changed the nature of banking markets. The federal banking agencies have identified a spectrum of risks facing banking institutions including, but not limited to, credit, market, liquidity, operational, legal, and reputational risk. Some of the regulatory pronouncements have focused on operational risk, which arises from the potential that inadequate information systems, operational problems, breaches in internal controls, fraud, or unforeseen catastrophes will result in unexpected losses. New products and services, third-party risk management and cybersecurity are critical sources of operational risk that financial institutions are expected to address in the current environment. The Banks are expected to have active board and senior management oversight; adequate policies, procedures, and limits; adequate risk measurement, monitoring, and management information systems; and comprehensive and effective internal controls.

Branching Authority

Each of the Banks has the authority, pursuant to the laws under which it is chartered, to establish branches anywhere in the state in which its main office is located, subject to the receipt of all required regulatory approvals.

Federal law permits state and national banks to merge with banks in other states subject to: (i) regulatory approval; (ii) federal and state deposit concentration limits; and (iii) state law limitations requiring the merging bank to have been in existence for a minimum period of time (not to exceed five years) prior to the merger.

State Bank Investments and Activities

Each of the Banks generally is permitted to make investments and engage in activities directly or through subsidiaries as authorized by the laws of the state under which it is chartered. However, under federal law and FDIC regulations, FDIC-insured state banks are prohibited, subject to certain exceptions, from making or retaining equity investments of a type, or in an amount, that are not permissible for a national bank. Federal law and FDIC regulations also prohibit FDIC-insured state banks and their subsidiaries, subject to certain exceptions, from engaging as principal in any activity that is not permitted for a national bank, unless the bank meets, and continues to meet, its minimum regulatory capital requirements and the FDIC determines the activity would not pose a significant risk to the deposit insurance fund of which the bank is a member.

Incentive Compensation Policies and Restrictions

The federal banking agencies have issued joint guidance on incentive compensation designed to ensure that the incentive compensation policies of banking organizations such as HTLF and the Banks are consistent with the safety and soundness of the organization and its subsidiary banks.

In addition, the Dodd-Frank Act requires the federal banking agencies and the SEC to issue regulations and guidelines requiring covered banking organizations such as HTLF and the Banks, to prohibit incentive-based compensation payment arrangements that encourage inappropriate risk taking by providing compensation that is excessive or that could lead to material financial loss to the organization. A proposed rule was issued in 2016. Also pursuant to the Dodd-Frank Act, in 2022, the SEC issued final rules that direct stock exchanges to require listed companies to implement clawback policies to recover incentive-based compensation from current or former executive officers in the event of certain financial restatements and would also require companies to disclose their clawback policies and their actions under those policies. Following the issuance of final rules by the Nasdaq market, HTLF will review the rules and take the necessary actions required to comply.

The Volcker Rule and Proprietary Trading
HTLF and the Banks are prohibited under the Volcker Rule from (1) engaging in short-term proprietary trading for their own accounts, and (2) having certain ownership interests in and relationships with hedge funds or private equity funds. The fundamental prohibitions of the Volcker Rule apply to banking entities of any size, including HTLF and the Banks. The Volcker Rule regulations contain exemptions for market-making, hedging, underwriting, trading in U.S. government and agency obligations and also permit certain ownership interests in certain types of funds to be retained. They also permit the offering and sponsoring of funds under certain conditions. The Volcker Rule regulations impose compliance and reporting obligations on banking entities.

HTLF does not engage in any significant amount of proprietary trading, as defined in the Volcker Rule, and the impact of the Volcker Rule on HTLF's business activities and investment portfolio has been minimal. HTLF has reviewed its investment portfolio to determine if any investments meet the Volcker Rule's definition of covered funds. Based on the review, HTLF determined that the impact related to investments considered to be covered funds did not have a significant effect on its financial condition or results of operations.

Community Reinvestment Act Requirements
The Community Reinvestment Act ("CRA") imposes a continuing and affirmative obligation on each of the Banks to help meet the credit needs of their respective communities, including low- and moderate-income neighborhoods, in a safe and sound manner. The FDIC and the respective state regulators regularly assess the record of each Bank in meeting the credit needs of its community. Applications for additional acquisitions are subject to evaluation of the effectiveness of the Banks' in meeting their CRA requirements.

In May 2022, the FDIC, Office of the Comptroller of the Currency and the Federal Reserve issued a joint Notice of Proposed Rulemaking ("NPR") on the Community Reinvestment Act. The NPR is intended to strengthen and modernize the rule that implements the CRA by expanding access to credit, investment and banking services in low- and moderate- income ("LMI") communities, which are CRA's core goals; adapting to changes in the banking industry, including mobile and internet banking by modernizing assessment areas while remaining focused on branch-based communities; providing greater clarity, consistency, and transparency in the application of the regulations through the use of standardized metrics as part of CRA evaluation and clarification eligible CRA activities focused on LMI communities and under-served rural communities; tailoring of CRA rules and data collection to bank size and business model and maintaining a unified approach among the regulators. The proposed rule contains expanded data collection and reporting requirements for which the impact and associated costs are unknown. It remains uncertain whether the proposed rule will be finalized in 2023, including its effective implementation date requirement for all banks.

Consumer Protection
The Banks and some of HTLF’s other operating subsidiaries are subject to a variety of federal and state statutes and regulations designed to protect consumers. The CFPB has broad rulemaking authority over a wide range of federal consumer protection laws that apply to banks and other providers of financial products and services, including the authority to prohibit “unfair, deceptive or abusive” acts and practices, but examination and supervision is carried out by each subsidiary bank’s primary federal banking agency and, where applicable, state banking agency, not the CFPB. In addition, state attorneys general and other state officials have authority to enforce consumer protection rules issued by the CFPB. State authorities have recently increased their focus on and enforcement of consumer protection rules.

The CFPB has undertaken numerous rule-making and other initiatives, including issuing informal guidance and taking enforcement actions against certain financial institutions. The CFPB’s rulemaking, examination and enforcement authority has affected and will continue to significantly affect financial institutions involved in the provision of consumer financial products and services.

The CFPB has also been publishing complaints submitted by consumers regarding consumer financial products and services in a publicly accessible online portal. The CFPB also publishes complaint narratives from consumers that opted to have their narratives made public. The publication of complaint narratives could affect the Banks in the following ways: (i) complaint data might be used by the CFPB to make decisions regarding regulatory, enforcement or examination issues; and (ii) the publication of such narratives may have a negative effect on the reputation of those institutions that are the subject of complaints.

In addition, deposit operations are subject to, among others: the Truth in Savings Act and Regulation DD issued by the CFPB, which require disclosure of deposit terms to consumers; Regulation CC issued by the Federal Reserve Board, which relates to the availability of deposit funds to consumers; the Right to Financial Privacy Act, which imposes a duty to maintain the confidentiality of consumer financial records and prescribes procedures for complying with administrative subpoenas of financial records; and the Electronic Fund Transfer Act and Regulation E issued by the CFPB, which governs automatic deposits to and withdrawals from deposit accounts and customers' rights and liabilities arising from the use of automated teller machines and other electronic banking services.

Changes to consumer protection regulations, including those promulgated by the CFPB, could affect our business but the likelihood, timing and scope of any such changes and the impact any such change may have on us cannot be determined with any certainty.

Mortgage Lending

Mortgage loans held at each of the Banks and mortgage loans originated by PrimeWest, a division of First Bank & Trust, are subject to a number of laws and rules affecting residential mortgages, including the Home Mortgage Disclosure Act ("HMDA") and Regulation C and the Real Estate Settlement Procedures Act ("RESPA"), Regulation X and rules regarding the mandatory purchase of flood insurance, including those issued pursuant to the Biggert-Waters Flood Insurance Reform Act. In recent years, the CFPB and other federal agencies have proposed and finalized a number of rules affecting residential mortgages. These rules implement the Dodd-Frank Act amendments to the Equal Credit Opportunity Act, Truth in Lending Act ("TILA") and RESPA. The rules, among other things, impose requirements regarding procedures to ensure compliance with the "ability to repay" requirements further detailed below, policies and procedures for servicing mortgages, and additional rules and restrictions regarding mortgage loan originator compensation and qualification and registration requirements for individual loan originator employees. These rules also impose new or revised disclosure requirements, including a new integrated mortgage origination disclosure that combines disclosures currently required under TILA and RESPA.

The HMDA and Regulation C require lenders to report certain information regarding home loans and includes tests for determining what financial institutions and credit transactions are covered under HMDA and reporting requirements for new data points identified in the Dodd-Frank Act or identified by the CFPB as necessary to carry out the purposes of HMDA. Regulation C requires detailed information from lenders and the reporting on mortgage loan underwriting and pricing.

Ability-to-Repay and Qualified Mortgage Rule

Under Federal Reserve Board Regulation Z, mortgage lenders, such as the Banks and the PrimeWest division of First Bank & Trust, are required to make a reasonable and good faith determination based on verified and documented information that a consumer applying for a mortgage loan has a reasonable ability to repay the loan according to its terms. Mortgage lenders are required to determine consumers' ability to repay in one of two ways. The first alternative requires the mortgage lender to consider the following eight underwriting factors when making the credit decision: (1) current or reasonably expected income or assets; (2) current employment status; (3) the monthly payment on the covered transaction; (4) the monthly payment on any simultaneous loan; (5) the monthly payment for mortgage-related obligations; (6) current debt obligations, alimony and child support; (7) the monthly debt-to-income ratio or residual income; and (8) credit history. Alternatively, the mortgage lender can originate "qualified mortgages," which are entitled to a presumption that the creditor making the loan satisfied the ability-to-repay requirements. In general, a "qualified mortgage" is a mortgage loan without negative amortization, interest-only payments, balloon payments or terms exceeding 30 years. In addition, to be a qualified mortgage, the points and fees paid by a consumer cannot exceed 3% of the total loan amount. Qualified mortgages that are "higher-priced" (e.g., subprime loans) have a rebuttable presumption of compliance with the ability-to-repay rules, while qualified mortgages that are not "higher-priced" (e.g., prime loans) are given a safe harbor of compliance. The Banks primarily originate compliant qualified mortgages.

Lending Standards and Guidance

The federal banking agencies have adopted uniform regulations prescribing standards for extensions of credit that are secured by liens or interests in real estate or made for the purpose of financing permanent improvements to real estate. Under these regulations, all insured depository institutions, such as the Banks, must adopt and maintain written policies establishing appropriate limits and standards for extensions of credit that are secured by liens or interests in real estate or are made for the purpose of financing permanent improvements to real estate. These policies must establish loan portfolio diversification standards, prudent underwriting standards (including loan-to-value limits) that are clear and measurable, loan administration procedures, and documentation, approval and reporting requirements. The real estate lending policies must reflect consideration of the federal bank regulators' Interagency Guidelines for Real Estate Lending Policies.

Data Privacy and Cybersecurity

Various federal and state laws and regulations contain extensive data privacy and cybersecurity provisions and the regulatory framework for data privacy and cybersecurity is in considerable flux and evolving rapidly. At the federal level, the Gramm-Leach-Bliley Act ("GLBA") requires financial institutions to, among other things, periodically disclose their privacy policies and practices relating to sharing personal information and, in some cases, enables consumers to opt out of the sharing of certain information with unaffiliated third parties. The GLBA also requires financial institutions to implement an information security program that includes administrative, technical and physical safeguards to ensure the security and confidentiality of customer records and information, which is assessed annually and reviewed on an ongoing basis by the Board of Directors. Additionally, like other lenders, the Banks use credit bureau data in their underwriting activities. Use of such data is regulated under the Fair Credit Reporting Act ("FCRA"), and the FCRA also regulates reporting information to credit bureaus, prescreening individuals for credit offers, sharing of information between affiliates, and using affiliate data for marketing purposes. HTLF is also subject to the rules and regulations promulgated under the authority of the Federal Trade Commission, which regulates unfair or deceptive acts or practices, including with respect to data privacy and cybersecurity. Moreover, the United States Congress is currently considering various proposals for more comprehensive data privacy and cybersecurity legislation, to which we may be subject if passed.

The federal banking regulators, as well as the SEC and related self-regulatory organizations, regularly issue guidance regarding cybersecurity that is intended to enhance cyber risk management among financial institutions. A financial institution is expected to establish a framework of internal control, first, second and third lines of defense, and risk management policies, procedures and processes that are designed to address the cyber risks that it faces in its business operations. A financial institution's management is expected to maintain sufficient business continuity planning processes to ensure the rapid recovery, resumption and maintenance of the institution's operations after a cyber-attack. A financial institution is also expected to develop appropriate processes to enable recovery of data and business operations if the institution or its critical service providers fall victim to a cyber-attack. Additionally, the Federal Financial Institutions Examination Council ("FFIEC") developed the Cybersecurity Assessment Tool to help financial institutions identify their risks and determine their preparedness for cybersecurity threats.

The FFIEC has also issued an Information Security booklet, which includes guidelines for evaluating the adequacy of information security programs (including effective threat identification, assessment and monitoring, and incident identification assessment and response), assurance reports and testing of information security programs.

Data privacy and cybersecurity are also areas of increasing state legislative focus. Various state laws and regulations apply, or may apply in the future, to HTLF'S operations and may impose additional requirements on HTLF and its subsidiaries or otherwise impact HTLF's ability to share certain personal information with affiliates and non-affiliates. For example, the California Consumer Protection Act of 2018 (the "CCPA"), which became effective on January 1, 2020, applies to for-profit businesses that conduct business in California and meet certain revenue or data collection thresholds. The CCPA gives California residents the right to, among other things, request disclosure of information collected about them and whether that information has been sold to others, request deletion of personal information (subject to certain exceptions), opt out of the sale of their personal information, and not be discriminated against for exercising these rights. The CCPA contains several exemptions, including an exemption applicable to personal information that is collected, processed, sold or disclosed pursuant to the GLBA. In addition, the California Privacy Rights Act ("CPRA"), which became effective in most material respects on January 1, 2023, significantly modifies the CCPA, including by expanding California residents' rights with respect to certain sensitive personal information. The CPRA also creates a new state agency which will be vested with authority to implement and enforce the CCPA and the CPRA. Other states where HTLF does business, or may in the future do business, or from which HTLF otherwise collects, or may in the future otherwise collect, personal information of residents have adopted or are considering adopting similar laws. For example, Virginia and Colorado have recently adopted comprehensive data privacy laws similar to the CCPA, which went into effect in January 2023, and will go into effect in July of 2023, respectively. In addition, laws in all 50 U.S. states generally require businesses to provide notice under certain circumstances to consumers whose personal information has been disclosed as a result of a data breach.

See "Legal, Compliance and Reputational Risks—*We are subject to complex and evolving laws, regulations, rules, standards and contractual obligations regarding data privacy and cybersecurity, which can increase the cost of doing business, compliance risks and potential liability."* for additional information.

ITEM 1A. RISK FACTORS

An investment in our securities is subject to risks inherent in our business. The material risks and uncertainties that management believes affect us are described below. Additional risks and uncertainties that management is not aware of or that management currently deems immaterial may also impair our business operations. If any of the events described in the risk factors occur, our financial condition and results of operations could be materially and adversely affected. If this were to happen, the value of our securities could decline significantly, and you could lose all or part of your investment.

Summary of Risk Factors

Below is a summary of the principal factors that make an investment in our common stock risky or speculative. This summary does not address all the risks that we face. Additional discussion of the risks summarized in this risk factor summary, and other risks that we face, can be found below and should be carefully considered, together with other information in this Form 10-K and our other filings with the SEC, before making an investment decision regarding our common stock. These risks include, but are not limited to, the following:

Economic and Overall Market Condition Risks

- The current or future pandemics and measures intended to prevent their spread may adversely affect our business activities, financial condition, and results of operations and such effects will depend on future developments, which are highly uncertain and difficult to predict.
- Our business and financial performance are significantly affected by general business and economic conditions, including those related to increased inflation, recessionary conditions, or domestic political factors.
- Our business and financial performance depend upon the continued growth and welfare of the various geographic markets that we serve.
- Our business and financial performance are vulnerable to the impact of volatility in debt and equity markets.
- Changes in interest rates, including continued actions by the Federal Reserve Board, and other conditions could negatively impact net interest income, net interest margin, and liquidity.
- We may be adversely impacted by the phasing out of the London Interbank Offered Rate ("LIBOR") as a reference rate.
- We have recorded goodwill as a result of acquisitions, and if it becomes impaired, our earnings could be significantly impacted.
- We have substantial deferred tax assets that could require a valuation allowance and a charge against earnings if we conclude that the tax benefits represented by the assets are unlikely to be realized.
- Changes in the federal, state or local tax laws may negatively impact our financial performance.
- Our business and financial performance could be adversely affected, directly or indirectly, by natural disasters, pandemics, terrorist activities, domestic disturbances or international hostilities.
- Climate change manifesting as transition, physical or other risks could adversely affect our operations, businesses, customers, reputation and financial condition.
- Our framework for managing risks may not be effective in identifying or mitigating risk and losses.

Credit Risks

- If we do not properly manage our credit risk, we could suffer material credit losses.
- We are subject to lending concentration risks.
- We depend on the accuracy and completeness of information about our customers and counterparties.
- Our loan portfolio has a large concentration of commercial real estate loans, a segment that can be subject to volatile cash flows and collateral values which may be impacted by changes in industry trends or regional or national market conditions.
- We may encounter issues with environmental law compliance if we take possession, through foreclosure or otherwise, of the real property that secures a commercial real estate loan.
- The ability of a borrower to repay agricultural loans may be especially affected by many factors outside of the borrower's control.
- We hold one- to four-family first-lien residential mortgage loans in our loan portfolio, and the ability of the borrower to repay may be difficult to estimate.
- Government programs established in response to the COVID-19 pandemic may delay but not avoid the realization of credit losses that result from the economic disruption caused by the COVID-19 pandemic.

- Our allowance for credit losses may prove to be insufficient to absorb losses in our loan portfolio.

Liquidity and Interest Rate Risks

- Liquidity is essential to our business, and our financial performance could be adversely affected by constraints in or increased costs for funding.
- The required accounting treatment of loans we acquire through acquisitions could result in lower net interest margins and interest income in future periods.
- Our growth may create the need to raise additional capital in the future, but that capital may not be available when it is needed.
- We rely on dividends from our subsidiaries for most of our revenue and are subject to restrictions on payment of dividends.
- Reduction in the value, or impairment of our investment securities, can impact our earnings and common stockholders' equity.

Operational Risks

- We have a continuing need for technology investments, and we may not have the resources to effectively implement new technology.
- Our operations are affected by risks associated with our use of vendors and other third-party service providers.
- Security breaches, cyber-attacks or other similar incidents with respect to our or our vendors' systems or network security, as well as the resulting theft or compromise of business and customer information, including personal information, could adversely affect our business or reputation, and create significant legal, regulatory or financial exposure.
- The potential for business interruption or failure exists throughout our organization.
- We are subject to risks from employee errors, customer or employee fraud and data processing system failures and errors.
- Our Bank Markets and growth strategy rely heavily on our management team, and the unexpected loss of key managers may adversely affect our operations.
- New lines of business, products and services are essential to our ability to compete but may subject us to additional risks.
- Our analytical and forecasting models may be improper or ineffective.
- Our internal controls may be ineffective.

Strategic and External Risks

- The soundness of other financial institutions could adversely affect our liquidity and operations.
- We may experience difficulties in achieving and managing our growth and our growth strategy involves risks that may negatively impact our net income. Strong organic growth is an integral component to allow us to achieve business and financial results necessary to make appropriate investments in people, processes and systems which allow HTLF to remain competitive in attracting and retaining employees and customers.
- Attractive acquisition opportunities may not be available to us in the future.
- We face intense competition in all phases of our business and competitive factors could adversely affect our business.

Legal, Compliance and Reputational Risks

- Government regulation can result in limitations on our growth strategy.
- We are subject to extensive and evolving government regulation and supervision, which can increase the cost of doing business and lead to enforcement actions.
- Stringent requirements related to capital may limit our ability to return earnings to stockholders or operate or invest in our business.
- We are becoming subject to additional regulatory requirements as our total assets increase, and these additional requirements could have an adverse effect on our financial condition or results of operations.
- We are subject to complex and evolving laws, regulations, rules, standards and contractual obligations regarding data privacy and cybersecurity, which can increase the cost of doing business, compliance risks and potential liability.
- Our participation as lenders in the PPP could result in reputational harm, claims and litigation.
- Litigation and enforcement actions could result in negative publicity and could adversely impact our business and financial results.

- Our reputation and our business are subject to negative publicity risk.

Risks of Owning Stock in HTLF

- Our stock price can be volatile.
- Stockholders may experience dilution as a result of future equity offerings and acquisitions.
- Certain banking laws may have an anti-takeover effect.

Economic and Overall Market Condition Risks

***The current or future pandemics and measures intended to prevent their spread may adversely affect our business activities, financial condition, and results of operations and such effects will depend on future developments, which are highly uncertain and difficult to predict*.**
Although the U.S. and global economies have recovered from the initial impacts of the COVID-19 pandemic as many health and safety restrictions have been lifted and vaccine distribution has increased, certain adverse consequences of the pandemic may continue to impact the macroeconomic environment and may persist for some time, including labor shortages and disruptions of global supply chains. The growth in economic activity and demand for goods and services, alongside labor shortages, wage pressure and supply chain complications, have also contributed to rising inflationary pressures. The extent to which the COVID-19 pandemic or another similar event could impact our business, results of operations and financial condition in the future will depend on future developments, which are highly uncertain and are difficult to predict, and may include increased credit losses due to financial strain on our customers as a result of the pandemic and governmental actions; increases in our loan loss provision and net charge-offs resulting from increased credit losses; declines in collateral values; an impairment of goodwill or core deposit and customer relationship intangibles that could result in charges being recorded and restrictions on the ability of our Banks to pay dividends to us; loan modifications and loan payment deferrals resulting in reduced earnings; increased demand on our liquidity as we meet borrowers' needs; negative effects on capital and leverage ratios as a result of reduced liquidity which, although not currently contemplated, could reduce or force suspension of dividends; stock price volatility; third-party disruptions, including negative effects on network providers and other suppliers, which may affect their ability to perform under the terms of agreements or provide essential services; and other operational failures due to changes in our normal business practices because of the pandemic and governmental actions to contain it.

Our business and financial performance are significantly affected by general business and economic conditions, including those related to increased inflation, recessionary conditions, or domestic political factors.
Our business activities and earnings are affected by general business conditions in the United States and particularly in our Bank Markets. Factors such as the volatility of interest rates, home prices and real estate values, inflation and the response of the Federal Reserve Board to it, unemployment, credit defaults, increased bankruptcies, decreased consumer spending and household income, volatility in the securities markets, persistent inflation, supply chain issues caused by the COVID-19 pandemic and geopolitical conflict such as the war in Ukraine, labor shortages, and the cost and availability of capital have negatively impacted our business in the past and may adversely impact us in the future. In addition, domestic political factors, including potential future federal government shutdowns and the possibility of the federal government defaulting on its obligations due to debt ceiling limitations, could have a serious impact on general economic conditions or the value of financial instruments owned by us that are issued or guaranteed by the federal government.

Over the past year, the economy has experienced persistent inflation and higher interest rates. Prolonged periods of inflation may negatively affect our expenses by increasing funding costs and expense related to talent acquisition and retention. Increased interest rates may adversely affect numerous aspects of our business, including by reducing demand for our financial products and services, restricting the ability of our consumer and business customers to repay loans, and diminishing the value of our investment portfolio, and may lead to economic deterioration or recession. Economic deterioration and recessionary conditions that affect household and/or corporate incomes could result in renewed credit deterioration, reduced demand for credit or fee-based products and services and turmoil and volatility in the financial markets, which could, negatively impact our performance. In addition, changes in securities market conditions and monetary fluctuations could adversely affect the availability and terms of funding necessary to meet our liquidity needs.

Our business and financial performance depend upon the continued growth and welfare of the various geographic markets that we serve.
We operate in Bank Markets in Iowa, Illinois, Wisconsin, Arizona, New Mexico, Montana, Colorado, Minnesota, Kansas, Missouri, Texas and California, and our financial condition, results of operations and cash flows are subject to changes in the economic conditions in those markets. Our success depends upon the economic vitality, growth prospects, business activity, population, income levels, deposits and real estate activity in those areas and may be impacted by the effects of past and future civil unrest and domestic disturbances in the communities that we serve. Although our customers' business and financial

interests may extend well beyond our market areas, adverse economic conditions that affect our specific market area could reduce our growth rate, affect the ability of our customers to repay their loans to us and impact the stability of our deposit funding sources. Consequently, declines in economic conditions in those Bank Markets could generally affect our financial condition and results of operations.

Our business and financial performance are vulnerable to the impact of volatility in debt and equity markets.

As most of our assets and liabilities are financial in nature, our performance is sensitive to the performance of the financial markets. Turmoil and volatility in the domestic and global financial markets can be a major contributory factor to overall weak economic conditions, including the impaired ability of borrowers and other counterparties to meet obligations to us. Financial market volatility may:

- Affect the value or liquidity of our on-balance sheet and off-balance sheet financial instruments.
- Affect the value of capitalized servicing assets.
- Affect our ability to access capital markets to raise funds. Inability to access capital markets if needed, at cost effective rates, could adversely affect our liquidity and results of operations.
- Affect the value of the assets that we manage or otherwise administer or service for others. Although we are not directly impacted by changes in the value of such assets, decreases in the value of those assets would affect related fee income and could result in decreased demand for our services.

Changes in interest rates, including continued actions by the Federal Reserve Board, and other conditions could negatively impact net interest income and net interest margin.

We are exposed to interest rate risk in our core banking activities of lending and deposit taking, and changes in prevailing interest rates affect the value of our assets and liabilities. Changes in interest rates, in the shape of the yield curve or in spreads between different market interest rates, can have a material effect on our net income and financial performance. Our profitability is in part a function of the spread between the interest rates earned on investments and loans and the interest rates paid on deposits and other interest-bearing liabilities. Like most banking institutions, our net interest spread and margin will be affected by general economic conditions and other factors, including fiscal and monetary policies of the Federal Reserve that influence market interest rates, and our ability to respond to changes in such rates. The Federal Reserve System regulates the supply of money and credit in the United States, and it influences interest rates by changing the discount rate at which it lends money to banks and by adjusting the target for the federal funds rate at which banks borrow from other banks. Its fiscal and monetary policies determine, in a large part, our cost of funds for lending and investing and the return that can be earned on those loans and investments, both of which affect our net interest margin. In addition, decisions by the Federal Reserve to increase or reduce the size of its balance sheet or to engage in tapering its purchase of assets may also affect interest rates. In response to the persistent inflation experienced in the past year, the Federal Reserve Board has reacted by implementing multiple interest rate increases. These interest rate increases may fail to reduce inflation and may lead to economic downturn or recession. Federal Reserve Board policies can also materially affect the value of financial instruments that we hold, such as debt securities and mortgage servicing rights.

At any given time, our assets and liabilities may be affected differently by a given change in interest rates. Asset values, especially commercial real estate collateral, securities or other fixed rate earning assets, can decline significantly with relatively minor changes in interest rates. As a result, an increase or decrease in rates, the length of loan terms or the mix of adjustable and fixed rate loans in our portfolio could have a positive or negative effect on our net income, capital and liquidity. We measure interest rate risk under various rate scenarios using specific criteria and assumptions. A summary of this process, along with the results of our net interest income simulations, is presented under the caption "Quantitative and Qualitative Disclosures About Market Risk" included under Item 7A of Part II of this Annual Report on Form 10-K. Although we believe our current level of interest rate sensitivity is reasonable and effectively managed, significant fluctuations in interest rates may have an adverse effect on our business, financial condition and results of operations, and specifically, our net interest income. Also, our interest rate risk modeling techniques and assumptions may not fully predict or capture the impact of actual interest rate changes on our financial condition and results of operations.

We cannot predict the nature or timing of future changes in monetary policies or the precise effects that they may have on our activities and financial results.

We may be adversely impacted by the phasing out of the London Interbank Offered Rate ("LIBOR") as a reference rate.

We have borrowings, variable rate loans, derivative contracts, and other financial instruments with attributes that either directly or indirectly depend on LIBOR. The publication of most LIBOR rates ceased as of the end of December 2021. While all remaining tenors of LIBOR will cease to be published immediately after June 30, 2023, the Alternative Reference Rate Committee developed a paced transition plan with specific steps and timelines to encourage the adoption of the Secured

Overnight Financing Rate ("SOFR") and to create a forward-looking term rate based on SOFR. The Board of Governors of the Federal Reserve ("Fed Board") selected SOFR as the replacement for LIBOR at the end of 2021.

The transition from LIBOR to SOFR could have a range of adverse impacts on us and financial contracts worldwide. In particular, any such transition could, among other things, (i) adversely affect the value of, return on and trading for financial assets or liabilities that are linked to LIBOR, including securities, loans or derivatives; (ii) require renegotiation of outstanding financial assets and liabilities; (iii) result in additional inquiries or other actions from regulators in respect to for the status of the LIBOR transition; (iv) increase the risks of disputes or litigation and/or increase expenses related to the transition; (v) adversely impact our reputation as we work with customers to transition loans and financial instruments from LIBOR; and (vi) cause disruption in financial markets that are relevant to our business.

To address the permanent cessation of LIBOR, Congress enacted the Adjustable Interest Rate (LIBOR) Act ("AIRLA") on March 15, 2022, to provide a federal solution for replacing references to LIBOR in existing contracts that either lack, or contain insufficient, LIBOR fallback provisions. AIRLA required the Fed Board to issue implementing regulations that would apply to financial contracts that lack or contain insufficient fallback provisions. The Fed Board adopted the final rule, which becomes effective February 27, 2023 ("Regulation ZZ"). Regulation ZZ expressly provides safe harbor protections in the use of Board-selected benchmark replacement rates of SOFR where there is a benchmark replacement problem in existing contracts, and further pre-empts any state or local law or standard relating to the selection of benchmark replacement rates. Regulation ZZ also includes the relevant tenor spread adjustments specified in AIRLA.

HTLF has a formal working group responsible for the planning, assessment and execution of the transition from LIBOR to SOFR. HTLF ceased using LIBOR as a reference rate for new contracts effective December 31, 2021. Currently, HTLF has identified borrowings, adjustable-rate loans, and derivative instruments which reference LIBOR-based tenors maturing beyond the LIBOR replacement date. HTLF is assessing each financial contract to determine whether the legislative solution afforded by Regulation ZZ is applicable or if there is a hardwired fallback provision. While HTLF will continue to execute on its transition plan, there can be no assurance that actions taken by us and third parties to address these market risks or effectively transition from LIBOR will be successful.

We have recorded goodwill as a result of acquisitions, and if it becomes impaired, our earnings could be significantly impacted.

Under current accounting standards, goodwill is not amortized but, instead, is subject to impairment tests on at least an annual basis or more frequently if an event occurs or circumstances change that reduce the fair value of a reporting unit below its carrying amount. Although we do not anticipate impairment charges, if we conclude that some portion of our goodwill is impaired, a non-cash charge for the amount of such impairment would be recorded against earnings. A goodwill impairment charge could be caused by a decline in our stock price or occurrence of a triggering event that compounds the negative results in an unfavorable quarter. At December 31, 2022, we had goodwill of $576.0 million, representing approximately 33% of stockholders' equity.

We have substantial deferred tax assets that could require a valuation allowance and a charge against earnings if we conclude that the tax benefits represented by the assets are unlikely to be realized.

We record deferred tax assets on our consolidated balance sheet, which represent differences in the timing of the benefit of deductions, credits and other items for accounting purposes and the benefit for tax purposes. To the extent we conclude that the value of this asset is not more likely than not to be realized, we would be obligated to record a valuation allowance against the asset, impacting our earnings during the period in which the valuation allowance is recorded. Assessing the need for, or the sufficiency of, a valuation allowance requires management to evaluate all available evidence, both negative and positive. Positive evidence necessary to overcome the negative evidence includes whether future taxable income in sufficient amounts and character within the carryback and carryforward periods is available under the tax law. When negative evidence (e.g., cumulative losses in recent years, history of operating losses or tax credit carryforwards expiring unused) exists, more positive evidence than negative evidence will be necessary. If the positive evidence is not sufficient to exceed the negative evidence, a valuation allowance for deferred tax assets is established. The creation of a substantial valuation allowance could have a significant negative impact on our reported results in the period in which it is recorded. The impact of the impairment of HTLF's deferred tax assets could have a material adverse effect on our business, results of operations and financial condition.

Changes in the federal, state or local tax laws may negatively impact our financial performance.

We are subject to changes in tax law that could increase our effective tax rates. The enactment of such legislation including provisions impacting tax rates, apportionment, consolidation or combination, income, expenses, credits and exemptions may have a material impact on our business, financial conditions and results of operations. These tax law changes may also be retroactive to previous periods and could negatively affect our current and future financial performance. There is no assurance that tax rates will remain at current levels or that presently anticipated benefits will be realized in future years' financial performance.

Our business and financial performance could be adversely affected, directly or indirectly, by natural disasters, pandemics, terrorist activities, domestic disturbances or international hostilities.

Neither the occurrence nor the potential impact of natural disasters, pandemics, terrorist activities, domestic disturbances or international hostilities can be predicted. However, these occurrences could impact us directly (for example, by interrupting our systems, which could prevent us from obtaining deposits, originating loans and processing and controlling the flow of business; causing significant damage to our facilities; or otherwise preventing us from conducting business in the ordinary course), or indirectly as a result of their impact on our borrowers, depositors, other customers, vendors or other counterparties (for example, by damaging properties pledged as collateral for our loans or impairing the ability of certain borrowers to repay their loans). We could also suffer adverse consequences to the extent that natural disasters, pandemics, terrorist activities, domestic disturbances or international hostilities affect the financial markets or the economy in general or in any particular region. These types of impacts could lead, for example, to an increase in delinquencies, bankruptcies or defaults that could result in higher levels of nonperforming assets, net charge-offs and provisions for credit losses.

Our ability to mitigate the adverse consequences of these occurrences is in part dependent on the quality of our resiliency planning, and our ability, if any, to anticipate the nature of any such event that occurs. The adverse impact of natural disasters, pandemics, terrorist activities, domestic disturbances or international hostilities also could be increased to the extent that there is a lack of preparedness on the part of national or regional emergency responders or on the part of other organizations and businesses that we transact with, particularly those that we depend upon, but have no control over.

Climate change manifesting as transition, physical or other risks could adversely affect our operations, businesses, customers, reputation and financial condition.

There is an increasing concern over the risks of climate change and related environmental sustainability matters. The physical risks of climate change include not only discrete events such as natural disaster events described above, the force and frequency of which are increasing as the climate changes, but also longer-term shifts in climate patterns, such as extreme heat, sea level rise, and more frequent and prolonged drought. Attempts to mitigate climate change, such as transitioning to a low-carbon economy, may include extensive policy, legal, technology and market initiatives. Transition risks, including changes in consumer preferences, additional regulatory, governance, and disclosure requirements or taxes and additional counterparty or customer requirements, could increase our expenses, undermine our strategies and impact our financial condition. In addition, our reputation and client relationships may be damaged as a result of our practices related to climate change, including our involvement, or our clients' involvement, in certain industries or projects associated with causing or exacerbating climate change, as well as any decisions we make to continue to conduct or change our activities in response to considerations relating to climate change.

Our framework for managing risks may not be effective in identifying or mitigating risk and losses.

Our risk management framework seeks to mitigate risk and loss. We have established processes and procedures intended to identify, measure, monitor, report, and analyze the types of risk to which we are subject, including liquidity risk, credit risk, market risk (including interest rate and price risk), compliance risk, strategic risk, reputation risk, and operational risk related to our employees, systems, processes and vendors, among others. However, as with any risk management framework, there are inherent limitations to our risk management strategies as there may exist, or develop in the future, risks that it has not appropriately anticipated or identified. We must also develop and maintain a culture of risk management among our employees, as well as manage risks associated with third parties, and could fail to do so effectively. If our risk management framework proves ineffective, we could incur litigation and negative regulatory consequences, and suffer unexpected losses that could affect its financial condition or results of operations.

Credit Risks

If we do not properly manage our credit risk, we could suffer material credit losses.

There are substantial risks inherent in making any loan, including, but not limited to:

- risks resulting from changes in economic and industry conditions, including those precipitated by climate change or climate transition in the economy;
- risks inherent in dealing with individual borrowers;
- uncertainties as to the future value of collateral; and
- the risk of non-payment of loans.

Although we attempt to properly establish limits, measure, monitor and manage our credit risk through prudent loan underwriting procedures and by monitoring concentrations of our loans, there can be no assurance that these underwriting and monitoring procedures will effectively reduce these risks. Moreover, if we expand into new markets, credit administration and loan underwriting policies and procedures may need to be adapted to local conditions. The inability to properly manage our credit risk or appropriately adapt our credit administration and loan underwriting policies and procedures to local market conditions or to changing economic circumstances could have an adverse impact on our allowance and provision for credit losses and our financial condition, results of operations and liquidity.

We are subject to lending concentration risks.
In the ordinary course of business, we have credit exposures to particular industries, regions, financial markets, or individual borrowers. As an example, loans secured by commercial and residential real estate typically represent a significant percentage of our overall credit portfolio. Although there are established limitations on the extent of total exposure to an individual consumer or business borrower, events adversely affecting specific customers or counterparties, industries, regions or financial markets, including a decline in their creditworthiness or a worsening overall risk profile, could materially and adversely affect us. Declining economic conditions also may impact commercial borrowers more than consumer borrowers, or vice versa. Certain of our credit exposures are concentrated in industries and may share similar characteristics which can make them more susceptible to the long-term risks of climate change, climate regulation, natural disasters, global pandemics or deteriorating economic conditions. Thus, the concentration and mix of our loan portfolio may affect the severity of the impact of a recession or other adverse events on us and our financial performance.

We depend on the accuracy and completeness of information about our customers and counterparties.
In deciding whether to extend credit or enter into other transactions, we rely on information furnished by or on behalf of customers and counterparties, including financial statements, credit reports and other financial information. We may also rely on representations of those customers, counterparties or other third parties, such as independent auditors, regarding the accuracy and completeness of that information. As a result of the current economic environment, we are engaging in more frequent communication with borrowers to better understand their creditworthiness and the challenges faced. These communications should allow HTLF to respond proactively as borrower needs and issues arise. Reliance on inaccurate or misleading financial statements, credit reports or other financial information could cause us to make uncollectible loans or enter into other unfavorable transactions, which could have a material adverse effect on our financial condition and results of operations.

Our loan portfolio has a large concentration of commercial real estate loans, a segment that can be subject to volatile cash flows and collateral values which may be impacted by changes in industry trends or regional and national market conditions.
Commercial real estate lending, which is comprised of owner-occupied, non-owner occupied, and real estate construction loans, represents a large portion of our commercial loan portfolio. The market value of real estate can fluctuate significantly in a short period of time as a result of market conditions in any of our geographic Bank Markets in which the real estate is located. Adverse developments in nationwide or regional market conditions affecting real estate values could negatively impact our commercial real estate loans, and other developments could increase the credit risk associated with our loan portfolio. For example, the decrease in demand for physical office space has reduced, and may continue to reduce, the value of certain commercial space, which increases the risk of default and the severity of defaults associated with loans secured by such properties. Non-owner occupied commercial real estate loans typically depend, in large part, on sufficient income from the properties securing the loans to cover operating expenses and debt service. Although our outstanding loans have not yet been significantly impacted by changes in economic activity, such changes, including an economic downturn or volatility in interest rates, could have a negative impact on some commercial real estate loan sectors.

Real estate construction loans involve additional risks because funds are advanced based upon estimates of costs and the estimated value of the completed project and therefore have a greater risk of default in a weaker economy. Construction projects require prudent underwriting including determination of a borrower's ability to complete the project, while staying within budget and on time in accordance with construction plans. Project feasibility is an important consideration, since these loans present project completion risks, as well as the risks applicable to other commercial real estate loans. While we follow prudent underwriting practices, including determining project feasibility on construction projects we finance, economic events, supply chain issues, labor market disruptions, or governmental regulations and other factors outside of the control of HTLF or our borrowers could negatively impact the future cash flow and market values of the affected properties.

We may encounter issues with environmental law compliance if we take possession, through foreclosure or otherwise, of the real property that secures a commercial real estate loan.
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 previously unknown or undisclosed hazardous or toxic substances are discovered, 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 which 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. Although we have policies and procedures to perform an environmental review at the time of underwriting a loan secured by real property and also before initiating any foreclosure action on real property, these reviews may not be sufficient to detect all potential environmental hazards. The remediation costs and any other financial liabilities associated with an environmental hazard could have a material adverse effect on our financial condition and results of operations.

The ability of a borrower to repay agricultural loans may be especially affected by many factors outside of the borrower's control.

Payments on agricultural and agricultural real estate loans are dependent on the profitable operation or management of the farm property securing the loan. If the cash flow from a farming operation is diminished, the borrower's ability to repay the loan may be impaired. Loans that are unsecured or secured by rapidly depreciating assets such as farm equipment or assets such as livestock or crops may not provide an adequate source of repayment of the outstanding loan balance as a result of the greater likelihood of damage to or depreciation in the value of crops or livestock.

The success of a farm may be affected by many factors outside the control of the borrower, including adverse weather conditions that prevent the planting of a crop or limit crop yields (such as hail, drought and floods), loss of livestock due to disease or other factors, declines in market prices for agricultural products (both domestically and internationally) and the impact of government regulations (including changes to global trade agreements, price supports, subsidies and environmental regulations). In addition, many farms are dependent on a limited number of key individuals whose injury or death may significantly affect the successful operation of the farm.

We hold one- to four-family first-lien residential mortgage loans in our loan portfolio, and the ability of the borrower to repay may be difficult to estimate.

The residential mortgage loans that we hold in our loan portfolio are primarily to borrowers we believe to be credit worthy based on internal standards and guidelines. Repayment is dependent upon the borrower's ability to repay the loan and the underlying value of the collateral. If we have overestimated or improperly calculated the abilities of the borrowers to repay those loans, default rates could be high, and we could face more legal process and costs to enforce collection of the loan obligations. If the value of the collateral is incorrect, we could face higher losses on the loans.

Government programs established in response to the COVID-19 pandemic may delay but not avoid the realization of credit losses that result from the economic disruption caused by the COVID-19 pandemic.

Many of our customers experienced adverse effects as a result of the COVID-19 pandemic, particularly those customers in or affected by the lodging, retail trade, retail properties, restaurants and bars, and oil and gas segments. In some cases, these negative effects may have been temporary, whereas in other cases these impacts, or other changes in the economy as a result of the pandemic, may have permanent adverse effects on customers of ours. Pursuant to the Coronavirus Aid, Relief and Economic Security Act (the "CARES Act"), beginning at the end of March 2020, the SBA made principal and interest payments on behalf of borrowers on certain qualifying SBA guaranteed loans for a period of time and established the PPP.

The foregoing programs were intended to increase the likelihood that the affected borrowers operate through and recover following the COVID-19 pandemic, after which their loans would return to a normal repayment schedule and perform in accordance with their original terms or in the case of PPP loans, will be forgiven. There can be no assurance, however, that customers who have suffered more permanent adverse effects as a result of the COVID-19 pandemic and economic changes related thereto will be able to sustain their repayment ability.

Our allowance for credit losses may prove to be insufficient to absorb losses in our loan portfolio.

We establish our allowance for credit losses in consultation with management of the Banks and maintain it at a level considered appropriate by management to absorb current expected credit losses and risks inherent in the portfolio. While the level of allowance for credit losses reflects management's continuing evaluation of quantitative and qualitative factors including industry concentrations, loan portfolio quality and economic conditions, the amount of future loan losses is susceptible to changes in economic, operating and other conditions, including changes in interest rates, levels of inflation, and other factors which may be beyond our control, and such losses may exceed current estimates. At December 31, 2022, our allowance for credit losses as a percentage of total loans was 0.96% and as a percentage of total nonperforming loans was approximately 187%. Although we believe that the allowance for credit losses is appropriate to absorb current expected credit losses on any existing loans that may become uncollectible, we cannot predict loan losses with certainty, and we cannot provide assurance that our allowance for credit losses will prove sufficient to cover actual loan losses in the future. Further significant provisions, or charge-offs against our allowance that result in provisions, could have a significant negative impact on our profitability.

Credit losses in excess of our reserves may adversely affect our business, financial condition and results of operations.

Liquidity and Interest Rate Risks

Liquidity is essential to our business, and our financial performance could be adversely affected by constraints in or increased costs for funding.
We require liquidity to fund our deposit and debt obligations as they come due. A number of factors beyond our control could have a detrimental impact on the availability or costs of that funding. These include market disruptions, changes in our credit ratings or the sentiment of investors, the state of the regulatory environment and monetary and fiscal policies, declines in the value of our investment securities, loss of substantial deposits or customer relationships, financial or systemic shocks, significant counterparty failures or reputational damage. Our ability to meet current financial obligations is a function of our balance sheet structure, ability to liquidate assets and access to alternative sources of funds. Our access to deposits can be impacted by the liquidity needs and financial condition of our customers, particularly large customers, as a substantial portion of our deposit liabilities are on demand, while a significant portion of our assets are loans that cannot be sold in the same timeframe or are securities that may not be readily saleable if there is disruption in capital markets. If we become unable to obtain funds when needed or lose a significant portion of our low-cost deposits, it could increase our cost of funding and have a material adverse effect on our business, financial condition and results of operations.

The required accounting treatment of loans we acquire through acquisitions could result in lower net interest margins and interest income in future periods.
Under United States GAAP, we are required to record loans acquired through acquisitions, at fair value. Estimating the fair value of such loans requires management to make estimates based on available information and facts and circumstances on the acquisition date. Any net discount, which is the excess of the amount of reasonably estimable and probable discounted future cash collections over the purchase price, is accreted into interest income over the weighted average remaining contractual life of the loans. As acquired loans pay down, mature, or if they are not replaced with higher-yielding loans, we may have a lower net interest margin and interest income in future periods.

Our growth may create the need to raise additional capital in the future, but that capital may not be available when it is needed.
We are required by federal and state regulatory authorities to maintain adequate levels of capital to support our operations. We anticipate that our existing capital resources will satisfy our capital requirements for the foreseeable future. However, from time to time, we raise additional capital to support continued growth, both internally and through acquisitions. Our ability to raise additional capital, if needed, will depend on conditions in the capital markets at that time, which are outside of our control, and on our financial performance. Accordingly, we cannot provide assurance that we will be able to raise additional capital if needed on terms acceptable to us. If we cannot raise additional capital when needed, our ability to further expand our operations through internal growth and acquisitions could be materially impaired.

We rely on dividends from our subsidiaries for most of our revenue and are subject to restrictions on payment of dividends.
The primary source of funds for HTLF is dividends from the Banks. In general, the Banks may only pay dividends either out of their historical net income after any required transfers to surplus or reserves have been made or out of their retained earnings. The payment of dividends by any financial institution is affected by the requirement to maintain adequate capital pursuant to applicable capital adequacy guidelines and regulations, and a financial institution generally is prohibited from paying any dividends if, following payment thereof, the institution would be undercapitalized. These dividends are the principal source of funds to pay dividends on HTLF's common and preferred stock and to pay interest and principal on our debt. Dividends payable on common shares are also subject to quarterly dividends payable on outstanding preferred shares at the applicable dividend rate.

Reduction in the value, or impairment of our investment securities, can impact our earnings and common stockholders' equity.
We maintained a balance of $7.05 billion, or 35% of our assets, in investment securities at December 31, 2022. Changes in market interest rates can affect the value of these investment securities, with increasing interest rates generally resulting in a reduction of value. Although the reduction in value from temporary increases in market rates does not affect our income until the security is sold, it does result in an unrealized loss recorded in other comprehensive income that can reduce our common stockholders' equity. Further, we may have to record provision expense to establish an allowance for credit losses on our carried at fair value debt securities, and we must periodically test our investment securities at the security level for potential credit losses, which takes into consideration numerous factors, and the relative significance of any single factor can vary by security. In assessing if an investment security is impaired, we may consider factors such as changes in security ratings, financial condition of the issuer, payment structure, cash flow analyses, security and industry specific economic conditions, as

well as our intent and ability to retain our investment in the security for a period of time sufficient to allow for any anticipated recovery in fair value in the near term.

Operational Risks

We have a continuing need for technology investments, and we may not have the resources to effectively implement new technology.

The financial services industry is undergoing rapid technological changes with frequent introductions of new technology-driven products and services. In addition to being able to better serve customers, the effective use of technology increases efficiency and enables financial institutions to reduce costs. Our future success will depend, in part, upon our ability to address the needs of our customers by using technology to provide products and services that will satisfy customer demands for convenience, as well as to create additional efficiencies in our operations as we continue to grow and expand our market areas. Many of our larger competitors have substantially greater resources to invest in technological improvements. As a result, they may be able to offer additional or superior products and services to those that we will be able to offer, which would put us at a competitive disadvantage. In addition, our need to address the changing needs, preferences, and best interests of our employees, customers, and business partners has accelerated the need to implement technological changes.

Our operations are affected by risks associated with our use of vendors and other third-party service providers.

We rely on vendor and third-party relationships for a variety of products and services necessary to maintain our day-to-day activities, particularly in the areas of correspondent relationships, operations, treasury management, information technology and security. This reliance exposes us to risks of those third parties failing to perform financially or contractually or to our expectations. These risks could include material adverse impacts on our business, such as credit loss or fraud loss, disruption or interruption of business activities, cyber-attacks and information security breaches, poor performance of services affecting our customer relationships and/or reputation, and possibilities that we could be responsible to our customers for legal or regulatory violations committed by those third parties while performing services on our behalf. In addition, changes to work preferences and environments have increased the risk of third-party disruptions, including negative effects on network providers and other suppliers, which have been, and may further be, affected by, market volatility and other factors that increase their risks of business disruption or that may otherwise affect their ability to perform under the terms of any agreements with us or provide essential services. While we have implemented an active program of oversight to address this risk, there can be no assurance that our vendor and third-party relationships will not have a material adverse impact on our business.

Security breaches, cyber-attacks or other similar incidents with respect to our or our vendors' systems or network security, as well as the resulting theft or compromise of business and customer information, including personal information, could adversely affect our business or reputation, and create significant legal, regulatory or financial exposure.

We rely heavily on communications and information systems and networks to conduct our business, and as part of our business, we collect, maintain and otherwise process significant amounts of data (including confidential, personal, proprietary and other information) about our business, our customers and the products and services they use. Our operations depend upon our ability to protect our communications and information systems and networks against damage from physical theft, fire, power loss, telecommunications failure or a similar catastrophic event, as well as from security breaches, cyber-attacks or other similar incidents. Our business relies on the secure processing, transmission, storage and retrieval of confidential, personal, proprietary and other information in our communication and information systems and networks, and in communication and information systems and networks of third parties with which we do business.

We, our customers, our vendors and other third parties, including other financial service institutions and companies engaging in data processing, have been subject to, and are likely to continue to be the target of security breaches, cyber-attacks and other similar incidents. These security breaches, cyber-attacks and other similar incidents include, denial of service attacks, worms, computer viruses, malicious or destructive code, social engineering, phishing attacks, ransomware, malware, theft, malfeasance or improper access by employees or vendors, human error, fraud, attacks on personal emails of employees or other disruptive problems that could result in material disruptions, damage to systems or networks or the unauthorized release, accessing, gathering, monitoring, loss, destruction modification, acquisition, transfer, use or other processing of confidential, personal, proprietary or any other information of ours, our employees, our customers, our vendors, or other third parties with which we do business. Attacks of this nature are increasing in frequency, levels of persistence, sophistication and intensity, are evolving in nature, and are conducted by sophisticated and organized groups and individuals with a wide range of motives and expertise, including organized criminal groups, "hacktivists," terrorists, nation states, nation state-supported actors, and others. As cybersecurity threats continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate or remediate any information security vulnerabilities, threats, security breaches, cyber-attacks or other similar incidents. Despite efforts to protect our systems and networks and implement controls, processes, policies, and other measures, we may not be able to anticipate all security breaches, cyber-attacks or other similar incidents, detect or react to such incidents in a timely manner, implement guaranteed preventive measures against such incidents, or adequately remediate any such incident.

Cybersecurity risks for banking organizations have significantly increased in recent years in part because of the proliferation and rapid evolution of new technologies, and the use of the internet and telecommunication technologies to conduct financial transactions. For example, cybersecurity risks may increase in the future as we continue to increase our mobile-payment and other internet-based products offerings and increase our internal usage of web-based products and applications. Given the continued and rapid evolution of cybersecurity threats, we may not be able to anticipate or prevent, and could be held liable for, any security breach, cyber-attack or other similar incident. Additionally, concerns regarding the effectiveness of our measures to safeguard our communications and information systems and networks, and information stored therein, or even the perception that those measures are inadequate, could cause us to lose existing or potential customers and thereby reduce our revenues. Further, cybersecurity and payment fraud risk due to increased online and remote work and remote customer activity.

We also face indirect technology, cybersecurity and operational risks relating to the vendors, customers, clients and other third parties with whom we do business or upon whom we rely to facilitate or enable our business activities, including for example financial counterparties, regulators, and providers of critical infrastructure such as internet access or electrical power. Due to the increasing consolidation, interdependence, and complexity of financial entities and technology systems, a security breach, cyber-attack or other similar incident that significantly degrades, deletes or comprises the systems, networks or data of one or more financial entities could have a material impact on counterparties or other market participants, including us. This consolidation, interconnectivity and complexity may increase the risk of operational failure on both an individual and industry-wide basis. While we generally perform cybersecurity diligence on our key vendors, because we do not control our vendors and our ability to monitor their cybersecurity is limited, we cannot ensure the cybersecurity measures they take will be sufficient to protect any information we share with them. Due to applicable laws and regulations or contractual obligations, we may be held responsible for security breaches, cyber-attacks or other similar incidents attributed to our vendors as they relate to the information we share with them.

The occurrence of any security breach, cyber-attack or other similar incident with respect to our or our vendors' communications or information systems or networks, or our failure to make adequate or timely disclosures to the public, regulators, or law enforcement agencies following any such event, could result in violations of applicable data privacy, cybersecurity and other laws and regulations, notification obligations, damage to our reputation, and loss of customer business, or subject us to additional regulatory scrutiny or expose us to civil litigation, fines, damages or injunctions, any of which could have a material adverse effect on our business, financial condition and results of operations. We cannot ensure that any limitations of liability provisions in our agreements with customers, vendors and other third parties with which we do business would be enforceable or adequate or would otherwise protect us from any liabilities or damages with respect to any particular claim in connection with a security breach, cyber-attack or other similar incident. Additionally, we cannot be certain that our insurance coverage will be adequate for cybersecurity liabilities actually incurred, that insurance will continue to be available to us on economically reasonable terms, or at all, or that our insurer will not deny coverage as to any future claim.

The potential for business interruption or failure exists throughout our organization.

Integral to our performance is the continued efficacy of our technical systems, operational infrastructure, relationships with third parties and the ability of our employees to perform their jobs day-to-day to support our on-going operations. Failure by any or all these resources subjects us to risks that may vary in size, scale and scope. These risks include, but are not limited to, operational or technical failures, ineffectiveness or exposure due to interruption in third party support, as well as the loss of key individuals, including those with specialized skills, or in general, the failure of key individuals to perform properly. These risks are heightened during necessary data system changes or conversions and system integrations of newly acquired entities. Although management has established policies and procedures to address such interruptions or failures, the occurrence of any such event could have a material adverse effect on our business, which, in turn, could have a material adverse effect on our financial condition and results of operations.

We are subject to risks from employee errors, customer or employee fraud and data processing system failures and errors.

Employee errors and employee or customer misconduct could subject us to financial losses or regulatory sanctions and seriously harm our reputation. Misconduct by our employees could include hiding unauthorized activities from us, improper or unauthorized activities on behalf of our customers or improper use of confidential information. It is not always possible to prevent employee errors and misconduct, and the precautions we take to prevent and detect this activity may not be effective in all cases. Employee errors could also subject us to financial claims for negligence. We maintain a system of internal controls and insurance coverage to mitigate against operational risks, including data processing system failures and errors and customer or employee fraud. Should our internal controls fail to prevent or detect an occurrence, or if any resulting loss is not insured or exceeds applicable insurance limits, it could have a material adverse effect on our business, financial condition and results of operations.

Our Bank Markets and growth strategy rely heavily on our management team, and the unexpected loss of key managers may adversely affect our operations.

Much of our success to date has been influenced strongly by our ability to attract and to retain senior management experienced in banking and financial services and familiar with the communities in our different market areas. Because our service areas are spread over such a wide geographical area, our executive management depends on the effective leadership and capabilities of the senior management in our Bank Markets for the continued success of HTLF. Our ability to retain executive officers, the current senior management teams and loan officers of our operating subsidiaries will continue to be important to the successful implementation of our strategy and could be difficult during times of low unemployment. It is also critical, as we grow, to be able to attract and retain qualified additional management and loan officers with the appropriate level of experience and knowledge about our market area to implement our community-based operating strategy. The unexpected loss of services of any key management personnel, or the inability to recruit and retain qualified personnel in the future, could have an adverse effect on our business, financial condition and results of operations.

New lines of business, products and services are essential to our ability to compete but may subject us to additional risks.

We may implement new lines of business and offer new products and services within existing lines of business to offer our customers a competitive array of products and services. There can be substantial risks and uncertainties associated with these efforts, particularly in instances where such products and services are still developing. In developing and marketing new lines of business and/or new products or 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, financial condition and results of operations.

Our analytical and forecasting models may be improper or ineffective.

The processes we use to estimate our current expected credit losses and to measure the fair value of financial instruments, as well as the processes used to estimate the effects of changing interest rates and other market measures on our financial condition and results of operations, depends upon the use of analytical and forecasting models. These models could reflect assumptions that may not be accurate, particularly in times of market stress or other unforeseen circumstances. Even if these assumptions are adequate, the models may prove to be inadequate or inaccurate because of other flaws and limitations in their design or their implementation. If the models we use to guide management's decisions and oversight relating to interest rate risk and asset-liability management are inadequate, we may incur increased or unexpected losses upon changes in market interest rates or other market measures. If the models we use for determining our probable loan losses are inadequate, the allowance for credit losses may not be appropriate to support future charge-offs. If the models we use to measure the fair value of financial instruments are inadequate, the fair value of such financial instruments may fluctuate unexpectedly or may not accurately reflect what we could realize upon sale or settlement of such financial instruments. Any such failure in our analytical or forecasting models could have a material adverse effect on our business, financial condition and results of operations.

Our internal controls may be ineffective.

Management regularly reviews and updates our internal controls, disclosure controls and procedures and corporate governance policies and procedures. Any system of controls, however well designed and operated, is based in part on certain assumptions and can provide only reasonable, not absolute, assurances that the objectives of the controls are met. Any failure or circumvention of our controls and procedures or failure to comply with regulations related to controls, policies and procedures could have a material adverse effect on our business, financial condition and results of operation.

Strategic and External Risks

The soundness of other financial institutions could adversely affect our liquidity and operations.

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. We have exposure to many different counterparties, and we routinely execute transactions with counterparties in the financial industry, including brokers and dealers, commercial banks, government sponsored entities, investment banks, and other institutional clients. As a result, defaults by, or even rumors or questions about, one or more financial services institutions, or the financial services industry generally, have led to market-wide liquidity problems and could lead to losses or defaults by HTLF or the Banks or by other institutions. Many of these transactions expose us to credit risk in the event of default of our counterparty or client. In addition, our credit risk may be exacerbated when the collateral held by us cannot be realized upon or is liquidated at prices not sufficient to recover the full amount of the financial instrument exposure due us. There is no assurance that any such losses would not materially and adversely affect our results of operations.

We may experience difficulties in achieving and managing our growth and our growth strategy involves risks that may negatively impact our net income. Strong organic growth is an integral component to allow us to achieve business and financial results necessary to make appropriate investments in people, processes and systems which allow HTLF to remain competitive in attracting and retaining employees and customers.

As part of our general growth strategy, we have acquired, and may acquire, additional banks, fee income businesses and other financial services businesses that we believe provide a strategic and geographic fit with our business. We expect to continue to make such acquisitions in the future. We cannot predict the number, size or timing of acquisitions. Economic conditions as well as the need for technological investment by regional banks could result in increased competition for merger or acquisition partners, potentially resulting in higher acquisition prices or an inability to complete desired acquisitions. Moreover, changing attitudes by the federal banking regulators about mergers may slow or prevent mergers. Failure to successfully identify and complete meaningful acquisitions likely may result in HTLF achieving slower growth.

To the extent that we grow through acquisitions, we cannot provide assurance that we will be able to manage this growth adequately and profitably. Acquiring other banks and businesses will involve risks commonly associated with acquisitions, including:

- potential exposure to unknown or contingent liabilities of the banks and businesses we acquire;
- exposure to potential asset quality issues of the acquired bank or related business;
- difficulty and expense of integrating the operations and personnel of banks and businesses we acquire;
- potential disruption to our business;
- potential restrictions on our business resulting from the regulatory approval process;
- inability to realize the expected revenue increases, costs savings, market presence and/or other anticipated benefits;
- potential diversion of our management's time and attention; and
- the possible loss of key employees and customers of the banks and businesses we acquire.

In addition to acquisitions, we may expand into additional communities or attempt to strengthen our position in our current Bank Markets by undertaking additional *de novo* bank formations or branch openings. Based on our experience, we believe that it generally takes three years or more for new banking facilities to first achieve operational profitability, due to the impact of organization and overhead expenses and the start-up phase of generating loans and deposits. To the extent that we undertake additional branching and *de novo* bank and business formations, we are likely to continue to experience the effects of higher operating expenses relative to operating income from the new operations, which may have an adverse effect on our levels of reported net income, return on average equity and return on average assets.

Attractive acquisition opportunities may not be available to us in the future.

While we seek continued organic growth, we anticipate continuing to evaluate merger and acquisition opportunities presented to us in our Bank Markets. We expect that other banking and financial companies, many of which have significantly greater resources, will compete with us to acquire financial services businesses. This competition, as the number of appropriate merger targets decreases, could increase prices for potential acquisitions which could reduce our potential returns, and reduce the attractiveness of these opportunities to us. In addition, acquisitions are subject to various regulatory approvals, and if we fail to receive the appropriate regulatory approvals, we will not be able to consummate an acquisition that we believe is in our best interests. Among other things, our regulators consider our capital, liquidity, profitability, risk management, regulatory compliance, including with respect to BSA/AML, consumer protection laws, CRA obligations, and levels of goodwill and intangibles when considering acquisition and expansion proposals. The federal banking agencies are currently reevaluating their existing requirements and policies for reviewing mergers and acquisitions involving banking organizations, which could make it more difficult for us to pursue mergers and acquisitions in the future. Any acquisition could be dilutive to our earnings and shareholders’ equity per share of our common stock.

We face intense competition in all phases of our business and competitive factors could adversely affect our business.

The banking and financial services business in our Bank Markets is highly competitive and is currently undergoing significant change. Our competitors include large regional banks, local community banks, online banks, thrifts, fintech firms, securities and brokerage companies, mortgage companies, insurance companies, finance companies, money market mutual funds, credit unions and other non-bank financial service providers, and increasingly these competitors provide integrated financial services over a broad geographic area. In particular, technology companies are increasingly focusing on the financial sector, either in partnership with competitor banking organizations or on their own. These companies generally are not subject to the same regulatory burdens as traditional financial institutions and may accordingly realize certain cost strategies and offer products and services at more favorable rates and with greater convenience to the client. This competition could result in the loss of clients and revenue in areas where fintechs are operating. As the pace of technology and change advance, continuous innovation is expected to exert long-term pressure on the financial services industry. Some of our competitors may also have a competitive advantage over us due to their access to governmental programs that we do not have access to that impact their position in the marketplace favorably.

The adoption of new technologies by competitors, including internet banking services, mobile applications, advanced ATM functionality and cryptocurrencies could require HTLF to make substantial investments to modify or adapt its existing products and services or even radically alter the way HTLF conducts business. These and other capital investments in HTLF's business may not produce expected growth in earnings anticipated at the time of the expenditure.

Increased competition in our Bank Markets may result in changes in our business model, sales of certain assets or business units, decreases in the amounts of our loans and deposits, reduced spreads between loan rates and deposit rates or loan terms that are more favorable to the borrower. Any of these results could have a material adverse effect on our ability to grow and remain profitable.

Legal, Compliance and Reputational Risks

Government regulation can result in limitations on our growth strategy.
We operate in a highly regulated environment and are subject to supervision and regulation by a number of governmental regulatory agencies, including the Federal Reserve, the FDIC, Housing and Urban Development ("HUD") and the various state agencies where we have a bank presence. We will also become subject to regulation by the CFPB when the assets of HTLF Bank, the Bank into which the eleven charters are consolidating, exceed $10 billion. Regulations adopted by these agencies, which are generally intended to provide protection for depositors and customers rather than for the benefit of stockholders, govern a comprehensive range of matters relating to ownership and control of our shares, our acquisition of other companies and businesses, our ability to offer new products and services, our ability to obtain financing and other aspects of our strategy. In addition, the federal banking agencies are currently reevaluating their existing requirements and policies for reviewing mergers and acquisitions involving banking organizations, which could make it more difficult for us to pursue mergers and acquisitions in the future.

We are subject to extensive and evolving government regulation and supervision, which can increase the cost of doing business and lead to enforcement actions.
Federal and state banking laws impose a comprehensive system of supervision, regulation and enforcement on the operations of FDIC-insured institutions, their holding companies and affiliates that is intended primarily for the protection of the FDIC-insured deposits and depositors of banks, rather than shareholders. These laws, and the regulations of the bank regulatory agencies issued under them, affect, among other things, the scope of our business, the kinds and amounts of investments that we and the Banks may make, reserve requirements, required capital levels relative to assets, the nature and amount of collateral for loans, the establishment of branches, our ability to merge, consolidate and acquire, dealings with our and the Banks' insiders and affiliates and our payment of dividends.

Both the scope of the laws and regulations and the intensity of the supervision to which our business is subject have increased in recent years, as well as other factors such as technological and market changes. For example, as cybersecurity and data privacy risks for banking organizations and the broader financial system have significantly increased in recent years, cybersecurity and data privacy issues have become the subject of increasing legislative and regulatory focus. Regulatory enforcement and fines also remain high across the banking and financial services sector. We expect that our business will remain subject to extensive regulation and supervision.

We expect a continued emphasis on regulatory reform, including a heightened focus on consumer protection, fair lending, the regulation of loan portfolios and credit concentrations to borrowers impacted by climate change, heightened scrutiny on Bank Secrecy Act and AML requirements, topics related to social equity, executive compensation, and increased capital and liquidity, as well as limits on share buybacks and dividends. For example, we currently derive a portion of our noninterest income from consumer overdraft fees, which have recently come under scrutiny by regulators, members of Congress and consumer rights groups. Regulators or Congress could impose additional restrictions on overdraft fee programs, which could reduce our noninterest income. It is uncertain whether and to what extent the regulatory burden on us will increase, and changes in existing regulations and their enforcement may require modification to HTLF's existing regulatory compliance and risk management infrastructure and practices.

In the routine course of regulatory oversight, proposals to change the laws and regulations governing the operations of banks and other financial institutions are frequently raised in the U.S. Congress, state legislatures and before bank regulatory authorities. Similarly, proposals to change the accounting and financial reporting requirements applicable to banks and other depository financial institutions are frequently raised by the SEC, the federal banking agencies and other authorities. The likelihood of significant changes in laws and regulations in the future and the effect such changes might have on our operations are impossible to determine. Recent changes in the laws and regulations that apply to us have been significant, and changes in statutes, regulations or policies could affect us in substantial and unpredictable ways, including limiting the types of financial products and services that we offer and/or increasing the ability of non-banks to offer competing financial products and services.

Stringent requirements related to capital may limit our ability to return earnings to stockholders or operate or invest in our business.

As a banking organization, we are subject to regulations that require us to maintain certain capital ratios, such as the ratio of our Tier 1 capital to our risk-weighted assets. Failure to satisfy certain capital requirements could result in restrictions on our ability to make capital distributions. If our regulatory capital ratios decline, as a result of decreases in the value of our loan portfolio, carried at fair value securities portfolio or otherwise, we may be required to improve such ratios by either raising additional capital or by disposing of assets. If we choose to dispose of assets, we cannot be certain that we will be able to do so at prices that we believe to be appropriate, and our future operating results could be negatively affected. If we choose to raise additional capital, we may accomplish this by selling additional shares of common stock, or securities convertible into or exchangeable for common stock, which could significantly dilute the ownership percentage of holders of our common stock and cause the market price of our common stock to decline. Additionally, events or circumstances in the capital markets generally may increase our capital costs and impair our ability to raise capital at any given time.

Additional requirements may be imposed in the future. The Basel Committee continues to examine ways to strengthen the regulation, supervision and practices of banks and has produced, and continues to produce consultation and discussion papers which point to a significant revision of the Basel Framework, including improvements to the calculation of risk-weighted assets and the comparability of capital ratios. The ultimate impact on our capital and liquidity will depend on the implementation of further changes in the United States.

We are becoming subject to additional regulatory requirements as our total assets increase, and these additional requirements could have an adverse effect on our financial condition or results of operations.

Various federal banking laws and regulations impose heightened requirements on larger banks and bank holding companies. These heightened requirements have added, and will continue to add, restrictions and complexity to our business operations, as we expand. For example, when we complete the consolidation of our Banks, we will become subject to additional regulation as a bank with assets over $10 billion.

Although the Economic Growth Act exempted bank holding companies under $100 billion in assets from certain Dodd-Frank Act requirements that were otherwise applicable to bank holding companies with greater than $10 billion and $50 billion in total consolidated assets, federal banking agencies have indicated through interagency guidance that the capital planning and risk management practices of institutions with total assets less than $100 billion would continue to be reviewed through the regular supervisory process, which may offset the impact of the relief from stress testing and risk management requirements provided by the Economic Growth Act.

We are subject to complex and evolving laws, regulations, rules, standards and contractual obligations regarding data privacy and cybersecurity, which can increase the cost of doing business, compliance risks and potential liability.

We are subject to complex and evolving laws, regulations, rules and standards governing the privacy and protection of personal information of individuals. Such individuals include our customers, our employees, and the employees of our vendors, counterparties and other third parties with which we do business. Ensuring that our collection, use, transfer, storage and other processing of personal information complies with applicable laws, regulations, rules and standards regarding data privacy and cybersecurity in relevant jurisdictions can increase operating costs, impact the development of new products or services, and reduce operational efficiency. Any actual or perceived mishandling or misuse of the personal information by HTLF or a third party affiliated with HTLF could expose us to litigation, regulatory fines, penalties or other sanctions, reputational harm, and other adverse impacts.

At the federal level, we are subject to the GLBA, which requires financial institutions to, among other things, periodically disclose their privacy policies and practices relating to sharing personal information and, in some cases, enables retail customers to opt out of the sharing of certain personal information with unaffiliated third parties. The GLBA also requires financial institutions to implement an information security program that includes administrative, technical and physical safeguards to ensure the security and confidentiality of customer records and information. Additionally, like other lenders, the Banks use credit bureau data in their underwriting activities. Use of such data is regulated under the Fair Credit Reporting Act ("FCRA"), and the FCRA also regulates reporting information to credit bureaus, prescreening individuals for credit offers, sharing of information between affiliates, and using affiliate data for marketing purposes. We are also subject to the rules and regulations promulgated under the authority of the Federal Trade Commission, which regulates unfair or deceptive acts or practices, including with respect to data privacy and cybersecurity. Moreover, the United States Congress has recently considered, and is currently considering, various proposals for more comprehensive data privacy and cybersecurity legislation, to which we may be subject if passed. Additionally, the federal banking regulators, as well as the SEC and related self-regulatory organizations, regularly issue guidance regarding cybersecurity that is intended to enhance cyber risk management among financial institutions.

Data privacy and cybersecurity are also areas of increasing state legislative focus, and we are, or may in the future become, subject to various state laws and regulations regarding data privacy and cybersecurity. For example, the California Consumer Protection Act of 2018 (the "CCPA"), which became effective on January 1, 2020, applies to for-profit businesses that conduct business in California and meet certain revenue or data collection thresholds. The CCPA gives California residents the right to, among other things, request disclosure of information collected about them and whether that information has been sold to others, request deletion of personal information (subject to certain exceptions), opt out of the sale of their personal information, and not be discriminated against for exercising these rights. The CCPA contains several exemptions, including an exemption applicable to personal information that is collected, processed, sold or disclosed pursuant to the GLBA. In addition, the California Privacy Rights Act ("CPRA") which went into effect on January 1, 2023, significantly modifies the CCPA, including by expanding California residents' rights with respect to certain sensitive personal information. The CPRA also creates a new state agency which will be vested with authority to implement and enforce the CCPA and the CPRA. Other states where we do business, or may in the future do business, or from which we otherwise collect, or may in the future otherwise collect, personal information of residents have adopted or are considering adopting similar laws. For example, Virginia and Colorado have recently adopted comprehensive data privacy laws similar to the CCPA, which went into effect in January 2023 and will go into effect in July 2023, respectively. In addition, laws in all 50 U.S. states generally require businesses to provide notice under certain circumstances to consumers whose personal information has been disclosed as a result of a data breach. Certain state laws and regulations may be more stringent, broader in scope, or offer greater individual rights, with respect to personal information than federal or other state laws and regulations, and such laws and regulations may differ from each other, which may complicate compliance efforts and increase compliance costs. Aspects of the CCPA, the CPRA, and other federal and state laws and regulations relating to data privacy and cybersecurity, as well as their enforcement, remain unclear, and we may be required to modify our practices in an effort to comply with them.

While we strive to publish and prominently display privacy policies that are accurate, comprehensive, and compliant with applicable laws, regulations, rules and industry standards, we cannot ensure that our privacy policies and other statements regarding our practices will be sufficient to protect us from claims, proceedings, liability or adverse publicity relating to data privacy or cybersecurity. Although we endeavor to comply with our privacy policies, we may at times fail to do so or be alleged to have failed to do so. The publication of our privacy policies and other documentation that provide promises and assurances about privacy, data protection and cybersecurity can subject us to potential federal or state action if they are found to be deceptive, unfair, or misrepresentative of our actual practices. Additional risks could arise in connection with any failure or perceived failure by us, our vendors or other third parties with which we do business to provide adequate disclosure or transparency to our customers about the personal information collected from them and its use, to receive, document or honor the privacy preferences expressed by our customers, to protect personal information from unauthorized disclosure, or to maintain proper training on privacy practices for all employees or third parties who have access to personal information in our possession or control.

Any failure or perceived failure by us to comply with our privacy policies, or applicable data privacy and cybersecurity laws, regulations, rules, standards or contractual obligations, or any compromise of security that results in unauthorized access to, or unauthorized loss, destruction, use, modification, acquisition, disclosure, release or transfer of personal information, may result in requirements to modify or cease certain operations or practices, the expenditure of substantial costs, time and other resources, proceedings or actions against us, legal liability, governmental investigations, enforcement actions, claims, fines, judgments, awards, penalties, sanctions and costly litigation (including class actions). Any of the foregoing could harm our reputation, distract our management and technical personnel, increase our costs of doing business, adversely affect the demand for our products and services, and ultimately result in the imposition of liability, any of which could have a material adverse effect on our business, financial condition and results of operations.

Our participation as lenders in the PPP could result in reputational harm, claims and litigation.

Our Banks were participating lenders in the PPP, a loan program created to help eligible businesses, organizations and self-employed persons fund their operational costs during the COVID-19 pandemic. Under this program, the SBA guaranteed 100% of the amounts of fixed, low interest rate loans that are subject to numerous other regulatory requirements. Because of the short windows between the passing of the authorizing legislation and the opening of the PPP, considerable inconsistencies and ambiguities existed, and there was increased risk of fraud on the part of borrowers. Even though most borrowers have applied for and received forgiveness of their PPP loans, the Banks are exposed to reputational harm and litigation regarding their processing of PPP applications. If a deficiency is identified, the SBA may take action against borrowers and, in some instances, 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 Banks.

Litigation and enforcement actions could result in negative publicity and could adversely impact our business and financial results.

We face significant legal and regulatory risks in our business, and the volume of claims and amount of damages and penalties claimed in litigation and governmental proceedings against financial institutions have increased in recent years. Reputation risk, or the risk to our earnings and capital from the resulting negative publicity, is inherent to our business. Current public uneasiness with the United States banking system heightens this risk, as banking customers often transfer news regarding consumer fraud, financial difficulties or even failure of some institutions, to fear of fraud, financial difficulty or failure of even the most secure institutions. In this climate, any negative news may become cause for curtailment of business relationships, withdrawal of funds or other actions that can have a compounding effect and could adversely affect our operations.

The financial services industry has increasingly been targeted by lawsuits alleging infringement of patent rights. Regardless of the scope or validity of such patents or other intellectual property rights, or the merits of any claims by potential or actual litigants, we may have to engage in protracted and costly litigation which may be time consuming and disruptive to our operations and management. If we are found to infringe on one or more patents or other intellectual property rights, we may be required to pay substantial damages or royalties to a third-party, or may be subject to a temporary or permanent injunction prohibiting us from utilizing certain technologies.

Substantial legal liability or significant governmental action against us could materially impact our business and financial results. Also, the resolution of a litigation or regulatory matter could result in additional accruals or exceed established accruals for a particular period, which could materially impact our results from operations for that period.

Our reputation and our business are subject to negative publicity risk.

Reputation risk, or the risk to our earnings and capital from negative public opinion, is inherent in our business. Negative public opinion could adversely affect our ability to keep and attract customers and expose us to adverse legal and regulatory consequences. Negative public opinion could result from our actual or alleged conduct in any number of activities, including lending practices, corporate governance, regulatory compliance, mergers and acquisitions, and disclosure, sharing or inadequate protection of customer information, and from actions taken by government regulators and community organizations in response to that conduct.

Risks of Owning Stock in HTLF

Our stock price can be volatile.

Our stock price can fluctuate widely in response to a variety of factors, including: actual or anticipated variations in our quarterly operating results; recommendations by securities analysts; acquisitions or business combinations; capital commitments by or involving HTLF or our Banks; operating and stock price performance of other companies that investors deem comparable to us; new technology used or services offered by our competitors; new reports relating to trends, concerns and other issues in the financial services industry; and changes in government regulations. General market fluctuations, industry factors and general economic and political conditions and events have caused a decline in our stock price in the past, and these factors, as well as, interest rate changes, unfavorable credit loss trends, or unforeseen events such as geopolitical events or terrorist attacks could cause our stock price to be volatile regardless of our operating results.

Stockholders may experience dilution as a result of future equity offerings and acquisitions.

In order to raise capital for future acquisitions or for general corporate purposes, we may offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at a price per share that may be lower than the current price. In addition, investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, may be higher or lower than the price paid by existing stockholders.

Certain banking laws may have an anti-takeover effect.

Certain federal banking laws, including regulatory approval requirements, could make it more difficult for a third party to acquire HTLF, even if doing so would be perceived to be beneficial to HTLF’s stockholders.

ITEM 1B. UNRESOLVED STAFF COMMENTS

As of December 31, 2022, HTLF had no unresolved staff comments.

ITEM 2. PROPERTIES

The following table is a listing of HTLF's principal operating facilities and the home offices of each of the Banks as of December 31, 2022:

Name and Main Facility Address	Main Facility Square Footage	Main Facility Owned or Leased	Number of Locations[1]
Heartland Financial USA, Inc. 1800 Larimer Street Suite 1800 Denver, CO 80202	7,100	Lease term through 2030	2
HTLF Bank 1800 Larimer Street Suite 100 Denver, CO 80202	8,700	Lease term through 2030	44
Dubuque Bank and Trust Company 1398 Central Avenue Dubuque, IA 52001	65,500	Owned	9
Wisconsin Bank & Trust 119 Junction Road Madison, WI 53717	19,000	Owned	12
New Mexico Bank & Trust 320 Gold NW Suite 100 Albuquerque, NM 87102	11,400	Lease term through 2026	21
Rocky Mountain Bank 2615 King Avenue West Billings, MT 59108	16,600	Owned	9
Bank of Blue Valley 11935 Riley Street Overland Park, KS 66213	38,000	Owned	9
First Bank & Trust 9816 Slide Road Lubbock, TX 79424	64,500	Owned	25

(1) Includes loan production offices

The corporate office of HTLF is located at 1800 Larimer Street, Suite 1800, in Denver, Colorado. A majority of the support functions provided to the Bank Markets by HTLF are performed at 700 Locust Street, Suites 400, 500 and 600 in Dubuque, Iowa.

For information on obligations related to our leased facilities, see Note 22, "Leases," to the consolidated financial statements.

ITEM 3. LEGAL PROCEEDINGS

There are no material pending legal proceedings to which HTLF or its subsidiaries are a party to at December 31, 2022, other than ordinary routine litigation incidental to their respective businesses. While the ultimate outcome of current legal proceedings cannot be predicted with certainty, it is the opinion of management that the resolution of these legal actions should not have a material effect on HTLF's consolidated financial position or results of operations.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

The names and ages of the executive officers of HTLF, the position held by these officers with HTLF, and the positions held with HTLF, are set forth below:

Name	Age	Position with HTLF and Subsidiaries and Principal Occupation
Bruce K. Lee	62	Chief Executive Officer, President and Director
Bryan R. McKeag	62	Executive Vice President and Chief Financial Officer
Janet M. Quick	57	Executive Vice President, Deputy Chief Financial Officer, and Principal Accounting Officer
Deborah K. Deters	58	Executive Vice President and Chief Human Resources Officer
Mark E. Frank	63	Executive Vice President and Chief Operating Officer
Nathan R. Jones	50	Executive Vice President and Chief Credit Officer
Kevin C. Karrels	49	Executive Vice President, Chief Marketing Officer, and Head of Consumer Banking
Jay L. Kim	59	Executive Vice President, Chief Administrative Officer, Corporate Secretary and General Counsel
Tamina L. O'Neill	53	Executive Vice President and Chief Risk Officer
David A. Prince	52	Executive Vice President and Head of Commercial Banking
Kevin G. Quinn	62	Executive Vice President and Chief Banking Officer

Bruce K. Lee was named Chief Executive Officer of HTLF in 2018. Mr. Lee joined HTLF in 2015 as President and was elected a Director of HTLF in 2017. Prior to joining HTLF, Mr. Lee held various leadership positions at Fifth Third Bancorp from 2001 to 2013, serving most recently as Executive Vice President, Chief Credit Officer from 2011 to 2013. Mr. Lee previously served as President and CEO of a Fifth Third affiliate bank in Ohio. Prior to Fifth Third, Mr. Lee served as an Executive Vice President and board member for Capital Bank, a community bank located in Sylvania, Ohio.

Bryan R. McKeag joined HTLF in 2013 as Executive Vice President, Chief Financial Officer. Prior to joining HTLF, Mr. McKeag served as Executive Vice President, Corporate Controller and Principal Accounting Officer with Associated Banc-Corp in Green Bay, Wisconsin. Prior to his 13 years at Associated Banc-Corp, Mr. McKeag spent 9 years in various finance positions at JP Morgan and 9 years in public accounting at KPMG in Minneapolis. He is an inactive holder of the certified public accountant certification.

Janet M. Quick was named Executive Vice President, Deputy Chief Financial Officer and Principal Accounting Officer in 2016. Ms. Quick had served as Senior Vice President, Deputy Chief Financial Officer since 2013. Ms. Quick has been with HTLF since 1994, serving in various audit, finance and accounting positions. Prior to joining HTLF, Ms. Quick was with Hawkeye Bancorporation in the corporate finance area. She is an active holder of the certified public accountant certification.

Deborah K. Deters joined HTLF in 2017 as Executive Vice President, Chief Human Resource Officer. Prior to joining HTLF, Ms. Deters served as the Senior Vice President and Chief Human Resources Officer at HUB International, LTD., a North American insurance brokerage based in Chicago, Illinois, where she oversaw the company’s growth from 4,000 to over 10,000 employees. Prior to HUB, Ms. Deters held several positions with Bally Entertainment for over 17 years, finishing as Senior Vice President, Chief Human Resource Officer of Bally Total Fitness. Ms. Deters has over 35 years of experience in all aspects of Human Resources.

Mark E. Frank joined HTLF in November 2019 as Senior Vice President, Regional Operations Officer. Mr. Frank was named Executive Vice President, Chief Operating Officer in early 2022. Prior to HTLF, Mr. Frank served as Executive Vice President, Senior Banking Officer at CoBiz Financial from 2003 to 2019. Mr. Frank has been employed in the banking industry in various management positions for approximately 40 years with experience focused on bank operations and information technology with deep expertise in strategic planning, budgeting project management, treasury management, computer operations, loan operations, customer service, facilities management and vendor management.

Nathan R. Jones joined HTLF in July 2020 as Executive Vice President, Chief Credit Officer. Prior to joining HTLF, Mr. Jones was the Chief Credit Officer for Fulton Financial Corporation, a regional financial holding company based in Lancaster, Pennsylvania from 2018 until joining HTLF. Mr. Jones previously served as the Executive Vice President Credit Administration and Analytics for First Horizon National Corporation, a regional financial holding company based in Memphis, Tennessee from 2011 to 2018. Mr. Jones has managed large scale credit and banking operations while developing and delivering new business processes and capabilities within global and regional financial institutions. He has previously worked for Bank of America and BMO Harris primarily in the risk management areas.

Kevin C. Karrels joined HTLF in March 2019 as the Executive Vice President, Head of Consumer Banking and in 2022, he assumed the additional role of Chief Marketing Officer. Prior to joining HTLF, Mr. Karrels led the Retail Bank and Consumer Digital for First Tennessee, N.A. for 21 years where he was responsible for the overall profitability of the Retail Bank organization and digital channels. Mr. Karrels has been in consumer banking for more than 25 years and has experience in Branch, Market Level Leadership, Loan Cross Sale Leadership, growth development in consumer lending, deposits, and profitability and the development of loan and deposit product offerings.

Jay L. Kim joined HTLF in January 2020 as Executive Vice President, General Counsel and in 2022, Mr. Kim was named Chief Administrative Officer. In October 2020, Mr. Kim was named as Corporate Secretary. Mr. Kim was most recently a partner with Dorsey & Whitney LLP, based in Minneapolis, Minnesota, in their Banking and Financial Services Industry group and focused on advising banks, trust companies, wealth management firms, commercial and residential mortgage brokers and retirement plan administrators on mergers and acquisitions and regulatory and operational matters. Mr. Kim rejoined Dorsey & Whitney LLP in 2017 after serving as Executive Vice President, General Counsel and Director of Corporate Development for Alerus Financial Corporation headquartered in Grand Forks, North Dakota from 2012 to 2017. His responsibilities at Alerus included oversight of the risk management, audit and compliance functions as well as acquisitions and investor relations. Prior to joining Alerus in 2012, he was a partner at Dorsey & Whitney LLP and another Minneapolis law firm, and he also served as Senior Vice President and General Counsel with Marquette Financial Companies.

Tamina L. O'Neill joined HTLF in August 2019 as Executive Vice President, Chief Risk Officer. Ms. O’Neill was most recently Senior Vice President and Director of Enterprise and Operational Risk Management at MB Financial Bank, a Chicago based mid-size institution from 2013 until joining HTLF. Ms. O’Neill’s experience spans small, mid-size and larger global financial institutions as her financial services and risk management career began over 30 years ago with LaSalle Bank/ABN AMRO, a multi-national global financial institution. Over the course of her career, she has built programs and led teams in government lending, commercial banking compliance, corporate compliance, operational risk and enterprise risk management.

David A. Prince joined HTLF in November 2018 as Executive Vice President, Commercial Banking. Prior to joining HTLF, Mr. Prince was the Commercial Banking Group Executive Vice President at Associated Banc-Corp., headquartered in Green Bay, Wisconsin from 2010 until joining HTLF. Mr. Prince has served in leadership roles at GE Capital Commercial Finance and National City Bank and has extensive commercial lending experience.

Kevin G. Quinn was named Executive Vice President, Chief Banking Officer of HTLF in February 2022. Prior to that, Mr. Quinn was a Regional President for HTLF from January 2019 to 2022, with responsibility for six of HTLF's Bank Markets. Prior to joining HTLF, Mr. Quinn was the President and Chief Executive Officer of Citywide Banks, headquartered in Denver, Colorado, a role which he held since 2009.

PART II

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

HTLF's common stock was held by approximately 2,515 stockholders of record as of February 15, 2023, and approximately 22,678 additional stockholders held shares in street name. The common stock of HTLF has been quoted on the Nasdaq Stock Market since May 2003 under the symbol "HTLF" and is a Nasdaq Global Select Market security.

On March 17, 2020, HTLF's board of directors authorized management to acquire and hold up to 5% of capital or $81.2 million as of December 31, 2022, as treasury shares at any one time. HTLF and its affiliated purchasers made no purchases of its common stock during the quarter ended December 31, 2022.

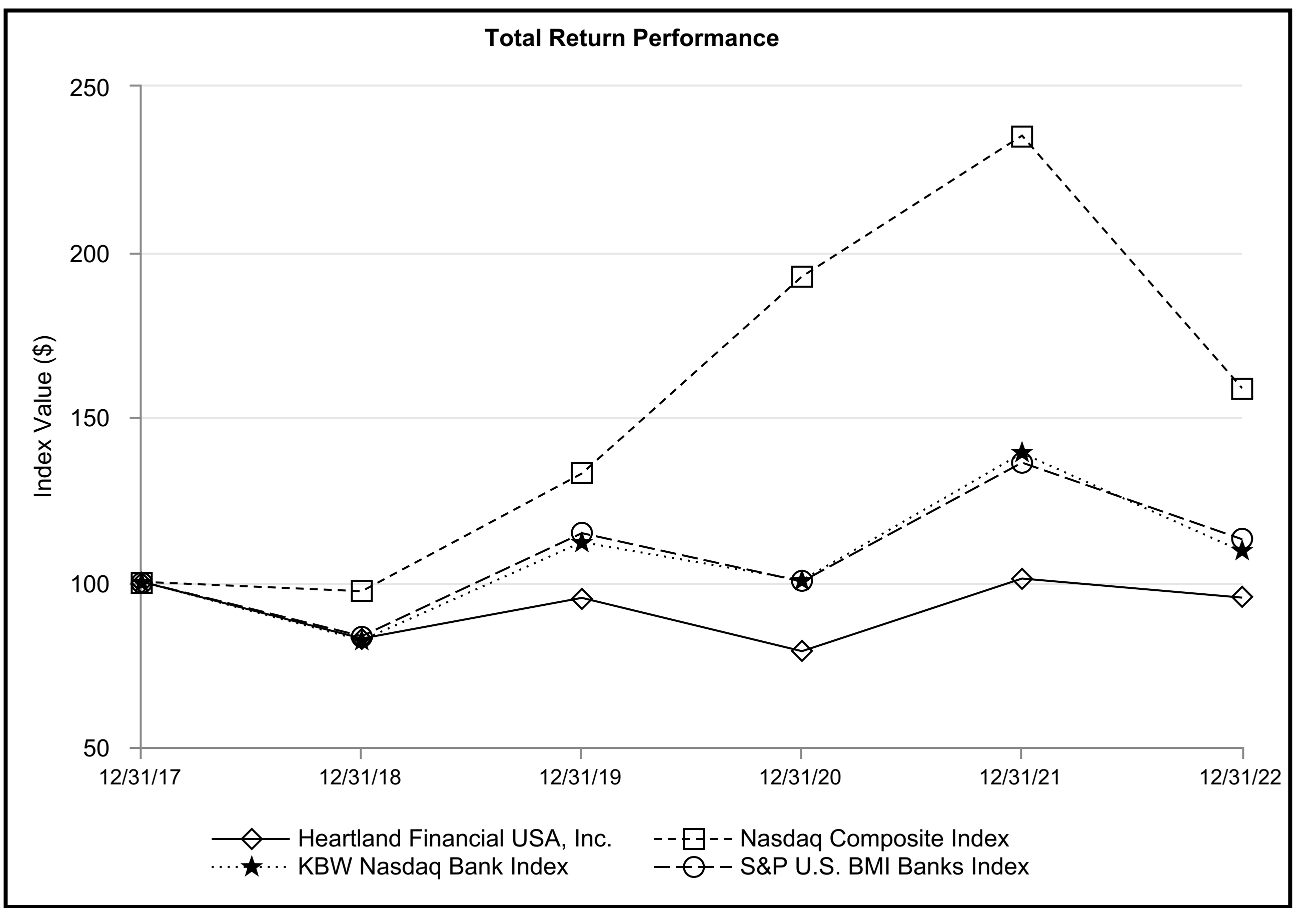
The following table and graph show a five-year comparison of cumulative total returns for HTLF, the Nasdaq Composite Index, the KBW Nasdaq Bank Index and the S&P U.S. BMI Banks Index, in each case assuming investment of $100 on December 31, 2017, and reinvestment of dividends. The table and graph were prepared at our request by S&P Global Market Intelligence.

Cumulative Total Return Performance

	As of December 31,					
	2017	2018	2019	2020	2021	2022
Heartland Financial USA, Inc.	$ 100.00	$ 82.82	$ 95.14	$ 78.99	$ 100.99	$ 95.21
Nasdaq Composite Index	100.00	97.16	132.81	192.47	235.15	158.65
KBW Nasdaq Bank Index	100.00	82.29	112.01	100.46	138.97	109.23
S&P U.S. BMI Banks Index	100.00	83.54	114.74	100.10	136.10	112.89

COMPARISON OF FIVE YEAR CUMULATIVE TOTAL RETURN*
ASSUMES $100 INVESTED ON DECEMBER 31, 2017

* Total return assumes reinvestment of dividends



ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Management’s discussion and analysis of the consolidated financial condition and results of operations of HTLF as of the dates and for the periods indicated is presented below. This discussion should be read in conjunction with the consolidated financial statements and the notes thereto and other financial data appearing elsewhere in this Annual Report on Form 10-K. The consolidated financial statements include the accounts of HTLF and its subsidiaries, all of which are wholly-owned.

For a discussion of 2020 results of operations, including a discussion of the financial results for the fiscal year ended December 31, 2021, compared to the fiscal year ended December 31, 2020, refer to Part I, Item 7 of our Annual Report on Form 10-K, which was filed with the SEC on February 25, 2021.

CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, income and expenses. These estimates are based upon historical experience and on various other assumptions that management believes are reasonable under the circumstances. Among other things, the estimates form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. Refer to Note 1, "Summary of Significant Accounting Policies," for further discussion on HTLF's critical accounting policies.

The estimates and judgments that management believes have the most effect on HTLF’s reported financial position and results of operations are as follows:

Allowance For Credit Losses

The process utilized by HTLF to estimate the allowance for credit losses is considered a critical accounting estimate for HTLF. The allowance for credit losses represents management’s estimate of identified and unidentified current expected credit losses in the existing loan portfolio. Therefore, the accuracy of this estimate could have a material impact on HTLF’s earnings.

For certain commercial and agricultural loans and any related unfunded loan commitments, the expected credit losses are calculated on a pool basis through a transition matrix model derived life of loan probability of default and loss given default methodology. The probability of default and loss given default methodology have been developed using HTLF’s historical loss experience over the look back period, currently over the most recent 14 years. For smaller commercial and agricultural loans, residential real estate loans and consumer loans and any related unfunded loan commitments, a lifetime average historical loss rate is established for each pool of loans based upon an average loss rate calculated using HTLF historical loss experience over the look back-period. The loss rates used in the allowance calculation are periodically re-evaluated and adjusted to reflect changes in historical loss levels or other risks.

If a loan no longer shares similar risk characteristics with other loans in the pool, it is evaluated on an individual basis and is not included in the collective evaluation. All individually assessed loan calculations are completed at least semi-annually.

HTLF's allowance methodology also has a qualitative component, the purpose of which is to provide management with a means to take into consideration changes in current conditions that could potentially have an effect, up or down, on the level of recognized loan losses, that, for whatever reason, may not be represented in the quantitative analysis performed in determining its base loan loss rates.

Additionally, our allowance calculation utilizes an overlay approach for its economic forecasting component, similar to the method utilized for the qualitative factors. The length of the reasonable and supportable forecast period is a judgmental determination based on the level to which HTLF can reasonably support its forecast of economic conditions that drive its estimate of expected loss.

The economic indices utilized from the economic forecast include the national unemployment rate, national gross domestic product, capacity index manufacturing growth, commercial real estate price indexes, national home price index and the national farm products price index. The economic indices utilized in the calculation which may be the most sensitive in the allowance calculation are the national unemployment rate and the national gross domestic product because management believes changes in these indices, positive or negative, will be impactful to all loan pools.

The appropriateness of the allowance for credit losses is monitored on an ongoing basis by the credit administration group, loan review staff, executive and senior management and the boards of directors of HTLF and each Bank. There can be no assurances that the allowance for credit losses will be adequate to cover all current expected credit losses, but management believes that the allowance for credit losses was appropriate at December 31, 2022. While management uses available information to provide for credit losses, the ultimate collectability of a substantial portion of the loan portfolio and the need for future additions to the allowance will be based on changes in economic conditions.

Should the economic climate deteriorate, borrowers may experience financial difficulty, and the level of nonperforming loans, charge-offs, and delinquencies could rise and require further increases in the provision for credit losses. Conversely, improvement in credit quality and economic conditions may allow for a reduction of provision for credit losses. Any unanticipated changes, positive or negative, could have a significant impact on the results of operations.

In addition, various regulatory agencies, as an integral part of their examination process, periodically review the allowance for credit losses carried by the Banks. Such agencies may require us to make additional provisions to the allowance based upon their judgment about information available to them at the time of their examinations.

Business Combinations, Goodwill and Core Deposit Intangibles

We record all assets and liabilities purchased in an acquisition, including intangibles, at fair value. Determining the fair value of assets and liabilities acquired often involves estimates based on third-party valuations, such as appraisals, or internal valuations based on discounted cash flow analyses or other valuation techniques that may include the use of estimates. Goodwill and indefinite-lived assets are not amortized but are subject to, at a minimum, annual tests for impairment. In certain situations, interim impairment tests may be required if events occur or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Core deposit intangibles assets are amortized over their estimated useful lives using straight-line and accelerated methods and are subject to impairment if events or circumstances indicate a possible inability to realize the carrying amount.

The initial fair value measurement of loans and core deposit intangibles require us to make subjective judgments concerning estimates of how the acquired assets will perform in the future using valuation methods. The fair value of acquired loans is based on a discounted cash flow methodology that projects principal and interest payments using key assumptions related to the discount rate and loss rates. The fair value of core deposit intangibles is based on the cost savings approach under a discounted cash flow methodology, whereby projected net cash flow benefits are derived from estimating costs to carry deposits compared to alternative funding costs, and includes key assumptions related to the discount rate, deposit attrition rates and net costs, including discounted cash flow analyses. Events and factors that may significantly affect the estimates include, among others, competitive forces, customer behaviors, changes in revenue growth trends, cost structures, technology, changes in discount rates and market conditions. In determining the reasonableness of cash flow estimates, HTLF reviews historical performance of the underlying assets or similar assets in an effort to assess and validate assumptions utilized in its estimates.

OVERVIEW

HTLF is a bank holding company operating under the brand name "HTLF". HTLF's independently branded Bank Divisions serve communities in Arizona, California, Colorado, Illinois, Iowa, Kansas, Minnesota, Missouri, Montana, New Mexico, Texas and Wisconsin. HTLF provides banking, mortgage, wealth management, investment and retirement plan services to businesses and consumers. As of December 31, 2022, HTLF has seven separately chartered banking subsidiaries with 119 locations in Iowa, Illinois, Wisconsin, New Mexico, Arizona, Montana, Colorado, Minnesota, Kansas, Missouri, Texas and California. Our primary objectives are to increase profitability, support our communities and grow our customer base through organic loan and deposit growth in the Bank Markets we serve while considering selective acquisitions.

Our results of operations depend primarily on net interest income, which is the difference between interest income from interest earning assets and interest expense on interest bearing liabilities. Noninterest income, which includes service charges and fees, loan servicing income, trust fees, brokerage and insurance commissions, net securities gains/(losses), net gains on sale of loans held for sale and income on bank owned life insurance also affects our results of operations. Our principal operating expenses, aside from interest expense, consist of the provision for credit losses, salaries and employee benefits, occupancy, furniture and equipment costs, professional fees, advertising, core deposit intangibles and customer relationship intangibles amortization, other real estate and loan collection expenses, partnership investment in tax credit projects and acquisition, integration and restructuring costs.

2022 Overview

Net income available to common stockholders was $204.1 million, or $4.79 per diluted common share, for the year ended December 31, 2022, compared to $211.9 million or $5.00 per diluted common share for the year ended December 31, 2021. Return on average common equity was 11.74%, and return on average assets was 1.08% for the year ended December 31, 2022, compared to 10.49% and 1.19%, respectively, for the year ended December 31, 2021.

Total assets of HTLF were $20.24 billion at December 31, 2022, an increase of $969.7 million or 5% since December 31, 2021. Securities represented 35% of total assets at December 31, 2022, compared to 40% of total assets at December 31, 2021.

Total loans held to maturity were $11.43 billion at December 31, 2022, compared to $9.95 billion at December 31, 2021, which was an increase of $1.47 billion or 15%. Excluding total PPP loans, total loan held to maturity increased $1.66 billion or 17% since year-end 2021.

Total deposits were $17.51 billion as of December 31, 2022, compared to $16.42 billion as of December 31, 2021, an increase of $1.10 billion or 7%.

Common stockholders' equity was $1.62 billion at December 31, 2022, compared to $2.07 billion at year-end 2021. Book value per common share was $38.25 at December 31, 2022, compared to $49.00 at year-end 2021. HTLF's unrealized gains and losses on securities available for sale, net of applicable taxes, reflected an unrealized loss of $619.2 million compared to an unrealized loss of $4.4 million at December 31, 2021.

2022 Developments

Charter Consolidation Update

In the fourth quarter of 2021, the HTLF Board of Directors unanimously approved a plan to consolidate its eleven bank charters. In the second quarter of 2022, the consolidation project advanced from planning to execution with Citywide Banks operating as a division of HTLF Bank. During the third quarter of 2022, the charters of Premier Valley Bank and Minnesota Bank & Trust were consolidated into HTLF Bank, and during the fourth quarter of 2022, the Arizona Bank & Trust and Illinois Bank & Trust charters were consolidated into HTLF Bank. Citywide Banks, Premier Valley Bank, Minnesota Bank & Trust, Arizona Bank & Trust and Illinois Bank & Trust are now operating as divisions of HTLF Bank. Subsequent to December 31, 2022, the Wisconsin Bank & Trust charter was consolidated. The remaining five charters are expected to be consolidated by the end of 2023. Charter consolidation follows a template that retains the current brands, local leadership and local decision making.

Total consolidation restructuring costs are projected to be $19-$20 million. Total costs incurred since the project started in the fourth quarter of 2021 through December 31, 2022, were $9.3 million. The remaining project costs of approximately $10 million are expected to be incurred in 2023.

Charter consolidation is designed to eliminate redundancies and improve HTLF’s operating efficiency and capacity to support ongoing product and service enhancements, as well as current and future growth, while enriching the customer experience. The operational efficiencies and expansion in capacity are projected to generate benefits of approximately $20.0 million annually when the project is completed with core operating expenses expected to decline to 2.10% or less of average assets. HTLF started to realize operating efficiencies and financial benefits in the second half of 2022 with the completion of five charter consolidations.

Common Stock Dividend Increase

The common stock dividend was increased from $0.27 per common share for the first three quarters of 2022 to $0.28 per common share for the fourth quarter of 2022.

Branch Optimization

During 2022, HTLF reduced its branch footprint from 130 to 119 locations, which was a reduction of 11 locations or 8%. HTLF continues to review its franchise network for optimization and consolidation opportunities, which may result in additional write-downs of fixed assets in future periods.

2021 Overview

Net income available to common stockholders was $211.9 million, or $5.00 per diluted common share, for the year ended December 31, 2021, compared to $133.5 million or $3.57 per diluted common share for the year ended December 31, 2020.

Return on average common equity was 10.49%, and return on average assets was 1.19% for the year ended December 31, 2021, compared to 8.06% and 0.93%, respectively, for the year ended December 31, 2020.

Total assets of HTLF were $19.27 billion at December 31, 2021, an increase of $1.37 billion or 8% since December 31, 2020. Securities represented 40% of total assets at December 31, 2021 compared to 35% of total assets at December 31, 2020.

Total loans held to maturity were $9.95 billion at December 31, 2021, compared to $10.02 billion at December 31, 2020, which was a decrease of $68.5 million or 1%. Excluding total PPP loans, total loan held to maturity increased $689.4 million or 8% since year-end 2020.

Total deposits were $16.42 billion as of December 31, 2021, compared to $14.98 billion as of December 31, 2020, an increase of $1.44 billion or 10%.

Common stockholders' equity was $2.07 billion at December 31, 2021, compared to $1.97 billion at year-end 2020. Book value per common share was $49.00 at December 31, 2021, compared to $46.77 at year-end 2020. HTLF's unrealized gains and losses on securities available for sale, net of applicable taxes, reflected an unrealized loss of $4.4 million compared to an unrealized gain of $76.8 million at December 31, 2020.

2021 Developments

Branding Change
On April 14, 2021, a branding change from Heartland Financial to HTLF was announced and rolled out across the organization. The branding was refreshed to better reflect the financial and non-financial strengths of HTLF, including a diverse footprint and the continued growth of the company.

Paycheck Protection Program Loans
HTLF originated a second round of Paycheck Protection Program loans ("PPP II") in 2021 totaling $473.9 million. PPP II loans are 100% SBA guaranteed, and borrowers may be eligible to have an amount up to the entire principal balance forgiven and paid by the SBA.

Branch Optimization
During 2021, HTLF reduced its branch footprint from 141 to 130 location, which was a reduction of 11 locations or 8%.

Common Stock Dividend Increase
The common stock dividend increased from $0.20 per common share in each quarter of 2020 to $0.22 for the first and second quarters of 2021, $0.25 for the third quarter of 2021, and $0.27 per common share in fourth quarter of 2021.

FINANCIAL HIGHLIGHTS (Dollars in thousands, except per share data)

	As of and For the Years Ended December 31,		
	2022	2021	2020
STATEMENT OF INCOME DATA			
Interest income	$ 674,656	$ 588,760	$ 536,612
Interest expense	76,420	28,200	44,883
Net interest income	598,236	560,560	491,729
Provision (benefit) for credit losses	15,370	(17,575)	67,066
Net interest income after provision for credit losses	582,866	578,135	424,663
Noninterest income	128,264	128,935	120,291
Noninterest expenses	443,377	431,812	370,963
Income taxes	55,573	55,335	36,053
Net income	212,180	219,923	137,938
Preferred dividends	(8,050)	(8,050)	(4,451)
Net income available to common stockholders	$ 204,130	$ 211,873	$ 133,487

FINANCIAL HIGHLIGHTS (Dollars in thousands, except per share data)

	As of and For the Years Ended December 31,		
	2022	**2021**	**2020**
PER COMMON SHARE DATA			
Net income – diluted	$ 4.79	$ 5.00	$ 3.57
Cash dividends	$ 1.09	$ 0.96	$ 0.80
Dividend payout ratio	22.76 %	19.20 %	22.41 %
Book value per common share (GAAP)	$ 38.25	$ 49.00	$ 46.77
Tangible book value per common share (non-GAAP)[1]	$ 24.09	$ 34.59	$ 32.07
Weighted average shares outstanding-diluted	42,630,703	42,410,611	37,356,524
Tangible common equity ratio (non-GAAP)[1]	5.21 %	7.84 %	7.81 %
BALANCE SHEET DATA			
Investments	$ 7,051,114	$ 7,697,650	$ 6,292,067
Loans held for sale	5,277	21,640	57,949
Total net loans receivable held to maturity	11,428,352	9,954,572	10,023,051
Allowance for credit losses-loans	109,483	110,088	131,606
Total assets	20,244,228	19,274,549	17,908,339
Total deposits	17,513,009	16,417,255	14,979,905
Long-term obligations	371,753	372,072	457,042
Preferred equity	110,705	110,705	110,705
Common stockholders’ equity	1,624,350	2,071,473	1,968,526
EARNINGS PERFORMANCE DATA			
Annualized return on average assets	1.08 %	1.19 %	0.93 %
Annualized return on average common equity	11.74	10.49	8.06
Annualized return on average tangible common equity (non-GAAP)[1]	18.56	15.59	12.28
Annualized net interest margin	3.32	3.29	3.65
Annualized net interest margin, fully tax-equivalent (non-GAAP)[1]	3.37	3.33	3.69
Efficiency ratio (GAAP)	61.03	62.63	60.61
Efficiency ratio, fully tax-equivalent (non-GAAP)[1]	57.74	59.48	56.65
Annualized ratio of total noninterest expenses to average assets (GAAP)	2.26	2.33	2.51
Annualized ratio of core expenses to average assets (non-GAAP)[1]	2.16	2.22	2.34
ASSET QUALITY RATIOS			
Nonperforming assets to total assets	0.33 %	0.37 %	0.53 %
Nonperforming loans to total loans	0.51	0.70	0.88
Net loan charge-offs to average loans	0.11	0.04	0.32
Allowance for credit losses to total loans	0.96	1.11	1.31
Allowance for credit losses to total loans excluding PPP loans	0.96	1.13	1.45
Allowance for lending related credit losses to total loans	1.13	1.26	1.47
Allowance for lending related credit losses to total loans excluding PPP loans	1.14	1.29	1.62
Allowance for credit losses to nonperforming loans	187.14	157.45	149.37

FINANCIAL HIGHLIGHTS (Dollars in thousands, except per share data)

	As of and For the Years Ended December 31,		
	2022	2021	2020
CONSOLIDATED CAPITAL RATIOS			
Average equity to average assets	9.42 %	11.51 %	11.59 %
Average common equity to average assets	8.86	10.92	11.21
Total capital to risk-adjusted assets	14.76	15.90	14.71
Tier 1 capital	11.81	12.39	11.85
Common equity tier 1	11.07	11.53	10.92
Tier 1 leverage	9.13	8.57	9.02

(1) Refer to the "Non-GAAP Financial Measures" section after these financial tables for additional information on the usage and presentation of these non-GAAP measures, and refer to these tables for reconciliations to the most directly comparable GAAP measures.

NON-GAAP RECONCILIATIONS (Dollars in thousands, except per share data)

	As of and For the Years Ended December 31,		
	2022	2021	2020
Reconciliation of Tangible Book Value Per Common Share (non-GAAP)			
Common stockholders' equity (GAAP)	$ 1,624,350	$ 2,071,473	$ 1,968,526
Less goodwill	576,005	576,005	576,005
Less other intangible assets, net	25,154	32,988	42,383
Tangible common stockholders' equity (non-GAAP)	$ 1,023,191	$ 1,462,480	$ 1,350,138
Common shares outstanding, net of treasury stock	42,467,394	42,275,264	42,093,862
Common stockholders' equity (book value) per share (GAAP)	$ 38.25	$ 49.00	$ 46.77
Tangible book value per common share (non-GAAP)	$ 24.09	$ 34.59	$ 32.07
Reconciliation of Tangible Common Equity Ratio (non-GAAP)			
Total assets (GAAP)	$20,244,228	$19,274,549	$17,908,339
Less goodwill	576,005	576,005	576,005
Less core deposit intangibles and customer relationship intangibles, net	25,154	32,988	42,383
Total tangible assets (non-GAAP)	$19,643,069	$18,665,556	$17,289,951
Tangible common equity ratio (non-GAAP)	5.21 %	7.84 %	7.81 %
Reconciliation of Annualized Return on Average Tangible Common Equity (non-GAAP)			
Net income available to common stockholders (GAAP)	$ 204,130	$ 211,873	$ 133,487
Plus core deposit and customer intangibles amortization, net of tax[(1)]	6,189	7,422	8,429
Adjusted net income available to common stockholders (non-GAAP)	$ 210,319	$ 219,295	$ 141,916
Average common stockholders' equity (GAAP)	$ 1,738,041	$ 2,020,200	$ 1,656,708
Less average goodwill	576,005	576,005	456,854
Less average other intangibles, net	28,912	37,554	44,298
Average tangible common equity (non-GAAP)	$ 1,133,124	$ 1,406,641	$ 1,155,556
Annualized return on average common equity (GAAP)	11.74 %	10.49 %	8.06 %
Annualized return on average tangible common equity (non-GAAP)	18.56 %	15.59 %	12.28 %

NON-GAAP RECONCILIATIONS (Dollars in thousands, except per share data)

	As of and For the Years Ended December 31,		
	2022	2021	2020
Reconciliation of Annualized Net Interest Margin, Fully Tax-Equivalent (non-GAAP)			
Net interest income (GAAP)	$ 598,236	$ 560,560	$ 491,729
Plus tax-equivalent adjustment(1)	8,399	7,212	5,466
Net interest income, fully tax-equivalent (non-GAAP)	$ 606,635	$ 567,772	$ 497,195
Average earning assets	$18,021,134	$17,025,088	$13,481,613
Net interest margin (GAAP)	3.32 %	3.29 %	3.65 %
Net interest margin, fully tax-equivalent (non-GAAP)	3.37 %	3.33 %	3.69 %
Reconciliation of Efficiency Ratio (non-GAAP)			
Net interest income (GAAP)	$ 598,236	$ 560,560	$ 491,729
Plus tax-equivalent adjustment(1)	8,399	7,212	5,466
Net interest income, fully tax-equivalent (non-GAAP)	606,635	567,772	497,195
Noninterest income (GAAP)	128,264	128,935	120,291
Securities losses (gains), net	425	(5,910)	(7,793)
Unrealized (gain)/loss on equity securities, net	622	(58)	(640)
Valuation adjustment on servicing rights	(1,658)	(1,088)	1,778
Adjusted revenue (non-GAAP)	$ 734,288	$ 689,651	$ 610,831
Total noninterest expenses (GAAP)	$ 443,377	$ 431,812	$ 370,963
Less:			
Core deposit intangibles and customer relationship intangibles amortization	7,834	9,395	10,670
Partnership investment in tax credit projects	5,040	6,303	3,801
(Gain)/loss on sales/valuations of assets, net	(1,047)	588	5,101
Acquisition, integration and restructuring costs	7,586	5,331	5,381
Core expenses (non-GAAP)	$ 423,964	$ 410,195	$ 346,010
Efficiency ratio (GAAP)	61.03 %	62.63 %	60.61 %
Efficiency ratio, fully tax-equivalent (non-GAAP)	57.74 %	59.48 %	56.65 %
Reconciliation of Annualized Ratio of Core Expenses to Average Assets			
Total noninterest expenses (GAAP)	$ 443,377	$ 431,812	$ 370,963
Core expenses (non-GAAP)	423,964	410,195	346,010
Average assets	$19,621,839	$18,508,273	$14,782,605
Total noninterest expenses to average assets (GAAP)	2.26 %	2.33 %	2.51 %
Core expenses to average assets (non-GAAP)	2.16 %	2.22 %	2.34 %

NON-GAAP RECONCILIATIONS (Dollars in thousands, except per share data)

	As of and For the Years Ended December 31,		
	2022	**2021**	**2020**
Acquisition, integration and restructuring costs			
Salaries and employee benefits	$ 1,404	$ 578	$ 398
Occupancy	—	10	—
Furniture and equipment	—	655	958
Professional fees	5,082	2,867	3,399
Advertising	382	173	143
(Gain)/loss on sales/valuations of assets, net	—	39	—
Other noninterest expenses	718	1,009	483
Total acquisition, integration and restructuring costs	$ 7,586	$ 5,331	$ 5,381

(1) Computed on a tax-equivalent basis using an effective tax rate of 21%.

Non-GAAP Financial Measures

This Annual Report on Form 10-K contains references to financial measures which are not defined by generally accepted accounting principles ("GAAP"). Management believes the non-GAAP measures are helpful for investors to analyze and evaluate HTLF's financial condition and operating results. However, these non-GAAP measures have inherent limitations and should not be considered a substitute for operating results determined in accordance with GAAP. Additionally, because non-GAAP measures are not standardized, it may not be possible to compare the non-GAAP measures presented in this section with other companies' non-GAAP measures. Reconciliations of each non-GAAP measure to the most directly comparable GAAP measure may be found in the financial tables above.

The non-GAAP measures presented in this Annual Report on Form 10-K, management's reason for including each measure and the method of calculating each measure are presented below:

- Tangible book value per common share is total common equity less goodwill and core deposit and customer relationship intangibles, net, divided by common shares outstanding, net of treasury. This measure is included as it is considered to be a critical metric to analyze and evaluate use of equity, financial condition and capital strength.
- Tangible common equity ratio is total common equity less goodwill and core deposit and customer relationship intangibles, net, divided by total assets less goodwill and core deposit and customer relationship intangibles, net. This measure is included as it is considered to be a critical metric to analyze and evaluate financial condition and capital strength.
- Annualized return on average tangible common equity is net income excluding intangible amortization calculated as (1) net income excluding tax-effected core deposit and customer relationship intangibles amortization, divided by (2) average common equity less goodwill and core deposit and customer relationship intangibles, net. This measure is included as it is considered to be a critical metric to analyze and evaluate use of equity, financial condition and capital strength.
- Net interest income, fully tax equivalent, is net income adjusted for the tax-favored status of certain loans and securities. Management believes this measure enhances the comparability of net interest income arising from taxable and tax-exempt sources.
- Annualized net interest margin, fully tax-equivalent, adjusts net interest income for the tax-favored status of certain loans and securities. Management believes this measure enhances the comparability of net interest income arising from taxable and tax-exempt sources.
- Efficiency ratio, fully tax equivalent, expresses adjusted noninterest expenses as a percentage of fully tax-equivalent net interest income and adjusted noninterest income. This efficiency ratio is presented on a tax-equivalent basis which adjusts net interest income and noninterest expenses for the tax favored status of certain loans, securities, and tax credit projects. Management believes the presentation of this non-GAAP measure provides supplemental useful information for proper understanding of the financial results as it enhances the comparability of income and expenses arising from taxable and nontaxable sources and excludes specific items as noted in the reconciliation contained in this Annual Report on Form 10-K.

- Annualized ratio of core expenses to average assets adjusts noninterest expenses to exclude specific items noted in the reconciliation. Management includes this measure as it is considered to be a critical metric to analyze and evaluate controllable expenses related to primary business operations.

RESULTS OF OPERATIONS

Net Interest Margin and Net Interest Income

HTLF's management seeks to optimize net interest income and net interest margin through the growth of earning assets and management of asset and liability positions because they are key indicators of HTLF's profitability.

Net interest income is the difference between interest income earned on earning assets and interest expense paid on interest bearing liabilities. As such, net interest income is affected by changes in the volume and yields on earning assets and the volume and rates paid on interest bearing liabilities. Net interest margin is the ratio of net interest income to average earning assets.

Our success in maintaining a favorable net interest margin has been the result of an increase in average earning assets and a favorable deposit mix. Also contributing to our ability to maintain net interest margin has been the amortization of purchase accounting discounts associated with acquisitions completed since 2015. For the years ended December 31, 2022, 2021 and 2020, our net interest margin included 4 basis points, 9 basis points and 12 basis points, respectively, of purchase accounting discount amortization.

See "Analysis of Average Balances, Tax-Equivalent Yields and Rates" for a description of our use of net interest income and net interest margin on a fully tax-equivalent basis, which is not defined by GAAP, and a reconciliation of annualized net interest margin on a fully tax-equivalent basis to GAAP.

Net interest margin, expressed as a percentage of average earning assets, was 3.32% (3.37% on a fully tax-equivalent basis) during 2022, compared to 3.29% (3.33% on a fully tax-equivalent basis) during 2021 and 3.65% (3.69% on a fully tax-equivalent basis) during 2020.

Net interest margin for the year ended December 31, 2022, compared to the year ended December 31, 2021

Total interest income and average earning asset changes for 2022 compared to 2021 were:

- Total interest income increased $85.9 million or 15% to $674.7 million from $588.8 million, which was primarily attributable to an increase in average earning assets and an increase in the average rate on earning assets.
- Total interest income on a tax-equivalent basis (non-GAAP) was $683.1 million compared to $596.0 million, which was an increase of $87.1 million or 15%.
- Average earning assets increased $996.0 million or 6% to $18.02 billion from $17.03 billion, which was primarily attributable to loan growth.
- The average rate on earning assets increased 29 basis points to 3.79% compared to 3.50%, which was primarily due to recent increases in market interest rates and a shift in earning asset mix.

Total interest expense and average interest bearing liability changes for 2022 compared to 2021 were:

- Total interest expense increased $48.2 million to $76.4 million compared to $28.2 million.
- The average rate paid on HTLF's interest bearing liabilities increased 39 basis points to 0.67% compared to 0.28%, which was primarily due to recent increases in market interest rates and deposit growth, including wholesale funding.
- Average interest bearing deposits increased $1.45 billion or 15% to $10.90 billion from $9.45 billion. Average wholesale deposits totaled $1.02 billion compared to $5.2 million.
- The average rate paid on HTLF's interest bearing deposits increased 36 basis points to 0.52% compared to 0.16%, which was primarily attributable to recent increases in market interest rates.
- Average borrowings increased $19.4 million or 4% to $540.3 million from $520.9 million. The average interest rate paid on HTLF's borrowings was 3.62% compared to 2.57%.

Net interest income changes for 2022 compared to 2021 were:

- Net interest income totaled $598.2 million compared to $560.6 million, which was an increase of $37.7 million or 7%.
- Net interest income on a tax equivalent basis (non-GAAP) totaled $606.6 million compared to $567.8 million, which was an increase of $38.9 million or 7%.

Net interest margin for the year ended December 31, 2021, compared to the year ended December 31, 2020

Total interest income and average earning asset changes for 2021 compared to 2020 were:

- Total interest income increased $52.1 million or 10% to $588.8 million from $536.6 million due to an increase in average earning assets, which was partially offset by a decrease in the average rate on earning assets.
- Total interest income on a tax-equivalent basis (non-GAAP) was $596.0 million compared to $542.1 million, which was an increase of $53.9 million or 10%.
- Average earning assets increased $3.54 billion or 26% to $17.03 billion from $13.48 billion, which was primarily attributable to recent acquisitions, increases in securities and loan growth.
- The average rate on earning assets decreased 52 basis points to 3.50% compared to 4.02%, which was primarily due to recent decreases in market interest rates and a shift in earning asset mix. Total average securities were 41% of earning assets compared to 32%.

Total interest expense and average interest bearing liability changes for 2021 compared to 2020 were:

- Total interest expense decreased $16.7 million or 37% to $28.2 million compared to $44.9 million.
- The average rate paid on HTLF's interest bearing liabilities decreased to 0.28% compared to 0.54%, which was primarily due to recent decreases in market interest rates.
- Average interest bearing deposits increased $1.64 billion or 21% to $9.45 billion from $7.81 billion, which was primarily attributable to recent acquisitions and deposit growth.
- The average rate paid on HTLF's interest bearing deposits decreased 23 basis points to 0.16% compared to 0.39%, which was primarily attributable to recent decreases in market interest rates.
- Average borrowings decreased $17.3 million or 3% to $520.9 million from $538.2 million. The average interest rate paid on HTLF's borrowings was 2.57% compared to 2.71%.

Net interest income changes for 2021 compared to 2020 were:

- Net interest income totaled $560.6 million compared to $491.7 million, which was an increase of $68.8 million or 14%.
- Net interest income on a tax equivalent basis (non-GAAP) totaled $567.8 million compared to $497.2 million, which was an increase of $70.6 million or 14%.

Management believes net interest margin in dollars will continue to increase as earning assets grows and a favorable deposit profile is maintained. In 2022, the Federal Reserve increased the federal funds rate seven times for a total of 425 basis points, and in February 2023, the Federal Reserve increased the federal funds rate 25 basis points. The Federal Reserve has indicated it will closely assess economic data but has signaled it will likely continue to raise the Federal funds interest rate in the first half of 2023. Ultimately, the timing and magnitude of any such changes are uncertain and will depend on domestic and global economic conditions.

The increases to the federal funds interest rate in 2022 had a positive impact on net interest income due to our asset sensitive balance sheet. We expect net interest income to be higher in 2023 compared to 2022, however, the magnitude of the increase will be dependent upon future federal funds rate increases and deposit pricing, which are difficult to predict.

We attempt to manage our balance sheet to minimize the effect that a change in interest rates has on our net interest income. We continue to work toward improving both our earning assets and funding mix through targeted organic growth strategies, which we believe will result in additional net interest income. We model and review simulations using various improving and deteriorating interest rate scenarios to assist in monitoring our exposure to interest rate risk. We believe our net interest income simulations reflect a well-balanced and manageable interest rate posture. Item 7A of this Annual Report on Form 10-K contains additional information about the results of our most recent net interest income simulations. Note 11, "Derivative Financial Instruments" to the consolidated financial statements contains a detailed discussion of the derivative instruments we have utilized to manage interest rate risk.

The following table provides certain information relating to our average consolidated balance sheets and reflects the yield on average earning assets and the cost of average interest bearing liabilities for the years indicated, in thousands. Dividing income or expense by the average balance of assets or liabilities derives such yields and costs. Average balances are derived from daily balances, and nonaccrual loans and loans held for sale are included in each respective loan category. Assets with tax favorable treatment are evaluated on a tax-equivalent basis assuming a federal income tax rate of 21%. Tax favorable assets generally have lower contractual pre-tax yields than fully taxable assets. A tax-equivalent yield is calculated by adding the tax savings to the interest earned on tax favorable assets and dividing by the average balance of the tax favorable assets.

	For the Year Ended December 31,								
	2022			2021			2020		
	Average Balance	Interest	Rate	Average Balance	Interest	Rate	Average Balance	Interest	Rate
Earning Assets									
Securities:									
Taxable	$ 6,335,586	$ 169,544	2.68 %	$ 6,135,732	$ 125,010	2.04 %	$ 3,901,202	$ 98,263	2.52 %
Nontaxable[1]	965,474	30,387	3.15	799,283	24,390	3.05	424,199	15,802	3.73
Total securities	7,301,060	199,931	2.74	6,935,015	149,400	2.15	4,325,401	114,065	2.64
Interest bearing deposits with other banks and other short-term investments	216,786	3,125	1.44	254,630	344	0.14	225,024	924	0.41
Federal funds sold	192	11	5.73	3,457	1	0.03	107	—	—
Loans:[2]									
Commercial and industrial[1]	3,070,890	140,310	4.57	2,543,514	111,473	4.38	2,437,183	118,513	4.86
PPP loans	50,464	6,884	13.64	734,139	40,627	5.53	779,183	25,285	3.25
Owner occupied commercial real estate	2,272,088	93,936	4.13	1,950,014	81,717	4.19	1,480,109	72,215	4.88
Non-owner occupied commercial real estate	2,196,922	99,202	4.52	1,969,910	87,728	4.45	1,589,932	78,178	4.92
Real estate construction	923,316	48,258	5.23	824,055	37,891	4.60	1,007,086	46,785	4.65
Agricultural and agricultural real estate	778,526	34,064	4.38	681,493	29,822	4.38	538,646	25,713	4.77
Residential real estate	852,541	34,276	4.02	846,573	36,768	4.34	793,821	38,210	4.81
Consumer	464,084	23,058	4.97	407,592	20,201	4.96	410,013	22,190	5.41
Less: allowance for credit losses	(105,735)	—	—	(125,304)	—	—	(104,892)	—	—
Net loans	10,503,096	479,988	4.57	9,831,986	446,227	4.54	8,931,081	427,089	4.78
Total earning assets	18,021,134	683,055	3.79 %	17,025,088	595,972	3.50 %	13,481,613	542,078	4.02 %
Nonearning Assets	1,600,705			1,483,185			1,300,992		
Total Assets	**$19,621,839**			**$18,508,273**			**$14,782,605**		
Interest Bearing Liabilities									
Savings	$ 9,737,100	$ 46,623	0.48 %	$ 8,311,825	$ 9,063	0.11 %	$ 6,718,413	$ 16,560	0.25 %
Time deposits	1,160,538	10,257	0.88	1,137,097	5,734	0.50	1,088,185	13,727	1.26
Short-term borrowings	168,404	2,717	1.61	181,165	471	0.26	155,467	610	0.39
Other borrowings	371,879	16,823	4.52	339,733	12,932	3.81	382,733	13,986	3.65
Total interest bearing liabilities	11,437,921	76,420	0.67 %	9,969,820	28,200	0.28 %	8,344,798	44,883	0.54 %
Noninterest Bearing Liabilities									
Noninterest bearing deposits	6,131,760			6,230,851			4,554,479		
Accrued interest and other liabilities	203,412			176,697			169,450		
Total noninterest bearing liabilities	6,335,172			6,407,548			4,723,929		
Stockholders' Equity	**1,848,746**			**2,130,905**			**1,713,878**		
Total Liabilities and Equity	**$19,621,839**			**$18,508,273**			**$14,782,605**		
Net interest income, fully tax-equivalent (non-GAAP)[1]		**$ 606,635**			**$ 567,772**			**$ 497,195**	
Net interest spread[1]			**3.12 %**			**3.22 %**			**3.48 %**
Net interest income, fully tax-equivalent (non-GAAP) to total earning assets			**3.37 %**			**3.33 %**			**3.69 %**

(1) Computed on a tax-equivalent basis using an effective tax rate of 21%.

(2) Nonaccrual loans and loans held for sale are included in the average loans outstanding.

The following table presents the dollar amount of changes in interest income and interest expense for the major components of interest earning assets and interest bearing liabilities, in thousands. It quantifies the changes in interest income and interest expense related to changes in the average outstanding balances (volume) and those changes caused by fluctuating interest rates. For each category of interest earning assets and interest bearing liabilities, information is provided on changes attributable to (i) changes in volume, calculated by multiplying the difference between the average balance for the current period and the average balance for the prior period by the rate for the prior period, and (ii) changes in rate, calculated by multiplying the difference between the rate for the current period and the rate for the prior period by the average balance for the prior period. The unallocated change has been allocated pro rata to volume and rate variances.

	For the Years Ended December 31,					
	2022 Compared to 2021 Change Due to			2021 Compared to 2020 Change Due to		
	Volume	Rate	Net	Volume	Rate	Net
Earning Assets/Interest Income						
Investment securities:						
Taxable	$ 4,192	$ 40,342	$ 44,534	$ 48,218	$ (21,471)	$ 26,747
Nontaxable[1]	5,210	787	5,997	11,875	(3,287)	8,588
Interest bearing deposits	(59)	2,840	2,781	108	(688)	(580)
Federal funds sold	(2)	12	10	—	1	1
Loans[1][2]	30,650	3,111	33,761	41,624	(22,486)	19,138
Total earning assets	**39,991**	**47,092**	**87,083**	**101,825**	**(47,931)**	**53,894**
Liabilities/Interest Expense						
Interest bearing deposits:						
Savings	1,808	35,752	37,560	3,274	(10,771)	(7,497)
Time deposits	121	4,402	4,523	591	(8,584)	(7,993)
Short-term borrowings	(35)	2,281	2,246	90	(229)	(139)
Other borrowings	1,301	2,590	3,891	(1,619)	565	(1,054)
Total interest bearing liabilities	**3,195**	**45,025**	**48,220**	**2,336**	**(19,019)**	**(16,683)**
Net interest income	**$ 36,796**	**$ 2,067**	**$ 38,863**	**$ 99,489**	**$ (28,912)**	**$ 70,577**

(1) Computed on a tax-equivalent basis using an effective tax rate of 21%.

(2) Nonaccrual loans and loans held for sale are included in average loans outstanding.

PROVISION FOR CREDIT LOSSES

A provision for credit losses is charged to expense to provide, in HTLF management's opinion, an appropriate allowance for credit losses. The following table shows the components of HTLF's provision for credit losses for the years ended December 31, 2022, 2021 and 2020, in thousands:

	For the Years Ended December 31,		
	2022	2021	2020
Provision (benefit) for credit losses-loans	$ 10,636	$ (17,706)	$ 65,745
Provision for credit losses-unfunded commitments	4,734	182	1,428
Provision (benefit) for credit losses-held to maturity securities	—	(51)	(107)
Total provision expense (benefit)	$ 15,370	$ (17,575)	$ 67,066

The provision for credit losses was $15.4 million during 2022 compared to a benefit of $17.6 million during 2021. The provision expense for 2022 was impacted by several factors, including:

- loan growth excluding PPP loans totaled $1.66 billion,
- decrease in nonperforming loans of $11.4 million to $58.5 million or 0.51% of total loans compared to $69.9 million or 0.70% of total loans at December 31, 2021,
- net charge-offs of $11.2 million, and
- utilization of a macroeconomic outlook in the estimation of the allowance for credit losses that anticipates a moderate recession developing within the next twelve months.

The provision benefit for credit losses was $17.6 million during 2021 compared to expense of $67.1 million during 2020. The provision benefit for 2021 was impacted by several factors, including:

- loan growth of $689.4 million excluding PPP loans, which included an increase of $358.3 million of government guaranteed loans for which no provision was required,
- decrease in nonperforming loans of $18.2 million to $69.9 million or 0.70% of total loans compared to $88.1 million or 0.88% of total loans at December 31, 2020,
- net charge-offs of $3.8 million, and
- improved macroeconomic factors compared to 2020.

At December 31, 2022, the allowance for credit losses for loans was 0.96% of total loans and 187.14% of nonperforming loans compared to 1.11% of total loans and 157.45% of nonperforming loans at December 31, 2021.

The size of the loan portfolio, the level of organic loan growth including government guaranteed loans, changes in credit quality and the variability that can occur in the factors, including the impact of economic conditions, are all considered when determining the appropriateness of the allowance for credit losses and will contribute to the variability in the provision for credit losses from year to year. For additional details on the specific factors considered in establishing the allowance for credit losses, refer to the discussion under the captions "Critical Accounting Estimates," "Provision for Credit Losses" and "Allowance for Credit Losses" in Item 8 of this Annual Report on Form 10-K, and the information in Note 1, "Basis of Presentation," and Note 5, "Allowance for Credit Losses" to the consolidated financial statements contained herein.

HTLF believes the allowance for credit losses as of December 31, 2022, was at a level commensurate with the overall risk exposure of the loan portfolio. However, deterioration in economic conditions, including a recession, could cause certain borrowers to experience financial difficulty and impede their ability to meet debt service. Due to the uncertainty of future economic conditions, including ongoing concerns over higher interest rates, supply chain challenges and workforce shortages, wage pressures and the waning effects of the economic stimulus, the provision for credit losses could be volatile in future periods.

NONINTEREST INCOME

The table below summarizes HTLF's noninterest income for the years indicated, in thousands:

	For the Years Ended December 31,			% Change	
	2022	2021	2020	2022/2021	2021/2020
Service charges and fees	$ 68,031	$ 59,703	$ 47,467	14 %	26 %
Loan servicing income	2,741	3,276	2,977	(16)	10
Trust fees	22,570	24,417	20,862	(8)	17
Brokerage and insurance commissions	2,986	3,546	2,756	(16)	29
Securities (losses) gains, net	(425)	5,910	7,793	(107)	(24)
Unrealized (loss) gain on equity securities, net	(622)	58	640	(1,172)	(91)
Net gains on sale of loans held for sale	9,032	20,605	28,515	(56)	(28)
Valuation adjustment on servicing rights	1,658	1,088	(1,778)	52	161
Income on bank owned life insurance	2,341	3,762	3,554	(38)	6
Other noninterest income	19,952	6,570	7,505	204	(12)
Total noninterest income	$ 128,264	$ 128,935	$ 120,291	(1)%	7 %

Notable changes in the components of noninterest income are as follows:

Service Charges and Fees

The following table summarizes the changes in service charges and fees for the years ended indicated, in thousands:

	For the Years Ended December 31,			% Change	
	2022	2021	2020	2022/2021	2021/2020
Service charges and fees on deposit accounts	$ 18,625	$ 16,414	$ 14,441	13 %	14 %
Overdraft fees	12,136	11,005	9,166	10	20
Customer service fees	375	220	177	70	24
Credit card fee income	27,560	21,623	16,026	27	35
Debit card income	9,335	10,441	7,657	(11)	36
Total service charges and fees	$ 68,031	$ 59,703	$ 47,467	14 %	26 %

Total service charges and fees were $68.0 million in 2022, which was an increase of $8.3 million or 14% from $59.7 million in 2021. Total service charges and fees in 2021 were $59.7 million, which was an increase of $12.2 million or 26% from $47.5 million in 2020.

The increase in credit card income detailed above was primarily the result of a larger commercial credit card base and increased utilization. The changes in debit card income noted above are primarily attributable to transaction volume fluctuations.

Management is monitoring and assessing industry changes related to the consumer overdraft fees, and any future changes could negatively impact overdraft fee income.

Loan Servicing Income

The following tables show the changes in loan servicing income for the years indicated, in thousands:

	For the Years Ended December 31,			% Change	
	2022	2021	2020	2022/2021	2021/2020
Commercial and agricultural loan servicing fees(1)	$ 2,033	$ 2,826	$ 3,287	(28)%	(14)%
Residential mortgage servicing fees(2)	1,847	1,837	1,727	1	6
Mortgage servicing rights amortization	(1,139)	(1,387)	(2,037)	(18)	(32)
Total loan servicing income	$ 2,741	$ 3,276	$ 2,977	(16)%	10 %

(1) Includes servicing fees for commercial, commercial real estate, agricultural and agricultural real estate loans and amortization of capitalized commercial servicing rights.

(2) Mortgage loans serviced by HTLF, primarily for GSEs, totaled $725.9 million, $723.3 million and $743.3 million as of December 31, 2022, 2021 and 2020, respectively.

Loan servicing income includes the fees collected for the servicing of commercial, agricultural, and mortgage loans, which are dependent upon the aggregate outstanding balance of these loans, rather than quarterly production and sale of these loans. Total loan servicing income totaled $2.7 million for 2022 compared to $3.3 million for 2021 and $3.0 million for 2020.

Included in and offsetting loan servicing income is the amortization of capitalized mortgage servicing rights, which was $1.1 million during 2022 compared to $1.4 million during 2021 and $2.0 million during 2020. Increases in residential mortgage interest rates during 2022 and stable residential mortgage interest rates during 2021 caused mortgage refinancing activity to decrease during the years ended December 31, 2022 and 2021, which resulted in lower mortgage servicing rights amortization.

Note 7, "Goodwill, Core Deposit Intangibles and Other Intangible Assets," to the consolidated financial statements contains a discussion of our servicing rights.

Trust Fees

Trust fees totaled $22.6 million for the year ended December 31, 2022, a decrease of $1.8 million or 8% from $24.4 million for the year ended December 31, 2021. Trust fees totaled $24.4 million for the year ended December 31, 2021, an increase of $3.6 million or 17% from $20.9 million for the year ended December 31, 2020. The changes in trust fees are primarily attributable to changes in the market value of trust assets under management, which were $3.62 billion, $3.79 billion and $3.42 billion at December 31, 2022, 2021, and 2020, respectively.

Securities (losses) gains, net
Net security losses totaled $425,000 for the year ended December 31, 2022 compared to net security gains of $5.9 million for the year ended December 31, 2021, which was a decrease of $6.3 million. During 2022, HTLF strategically repositioned $217.8 million of lower yielding securities, which resulted in net securities losses of $3.7 million, and the proceeds were used to purchase securities with a higher yield.

Net Gains on Sale of Loans Held for Sale
Net gains on sale of loans held for sale totaled $9.0 million during 2022 compared to $20.6 million during 2021 and $28.5 million during 2020. These gains result primarily from the gain or loss on sales of mortgage loans into the secondary market, related fees and fair value marks on the associated derivatives. Loans sold to investors in 2022 totaled $300.7 million compared to $502.4 million during 2021, which was a decrease of $201.7 million or 40%. Loans sold to investors in 2021 totaled $502.4 million, a decrease of $87.9 million or 15% from $590.3 million sold in 2020. The decreases in loans sold to investors and the net gains on sale of loans held for sale during 2022 were primarily attributable to increased residential mortgage rates. The decreases in loans sold to investors and the net gains on sale of loans held for sale during 2021 were primarily attributable to increased and stable residential mortgage interest rates compared to 2020, which caused mortgage activity to decrease.

Valuation Adjustment on Servicing Rights
The valuation adjustment recovery on servicing rights totaled $1.7 million for the year ending December 31, 2022, compared to $1.1 million for the year ending December 31, 2021, and compared to an impairment of $1.8 million for the year ended December 31, 2020. The change for the years ended December 31, 2022 and 2021 was primarily due to increases in residential mortgage interest rates during 2022 and 2021 compared to declines in residential mortgage interest rates during 2020.

Other noninterest income
Other noninterest income totaled $20.0 million for the year ended December 31, 2022, an increase of $13.4 million from $6.6 million for the year ended December 31, 2021. Commercial swap fees and syndication income totaled $11.5 million for the year ended December 31, 2022, compared to $1.3 million for the year ended December 31, 2021, an increase of $10.2 million. Additionally, gains of $1.9 million were recorded in the second quarter of 2022 on the sale of VISA B shares held by two Banks.

NONINTEREST EXPENSES

The following table summarizes HTLF's noninterest expenses for the years indicated, in thousands:

	For the Years Ended December 31,			% Change	
	2022	**2021**	**2020**	**2022/2021**	**2021/2020**
Salaries and employee benefits	$ 254,478	$ 240,114	$ 202,668	6 %	18 %
Occupancy	28,155	29,965	26,554	(6)	13
Furniture and equipment	12,499	13,323	12,514	(6)	6
Professional fees	65,606	64,600	54,068	2	19
Advertising	6,221	7,257	5,235	(14)	39
Core deposit intangibles and customer relationship intangibles amortization	7,834	9,395	10,670	(17)	(12)
Other real estate and loan collection expenses	950	990	1,340	(4)	(26)
(Gain) loss on sales/valuations of assets, net	(1,047)	588	5,101	(278)	(88)
Acquisition, integration and restructuring costs	7,586	5,331	5,381	42	(1)
Partnership investment in tax credit projects	5,040	6,303	3,801	(20)	66
Other noninterest expenses	56,055	53,946	43,631	4	24
Total noninterest expenses	$ 443,377	$ 431,812	$ 370,963	3 %	16 %

Notable changes in the components of noninterest expenses are as follows:

Salaries and Employee Benefits
The largest component of noninterest expense, salaries and employee benefits, increased $14.4 million or 6% to $254.5 million in 2022 and $37.4 million or 18% to $240.1 million in 2021. Full-time equivalent employees totaled 2,002 on December 31, 2022, compared to 2,249 on December 31, 2021, and 2,013 on December 31, 2020.

The increase in salaries and employee benefits during 2022 was primarily attributable to higher salaries expense due to inflationary wage pressures and incentive compensation.

The increase in salaries and employee benefits during 2021 was primarily attributable to higher salaries expense, normalized health care usage, and an increase in full-time equivalent employees, which included the addition of specialized commercial and agribusiness lending teams.

Professional Fees
Professional fees increased $1.0 million or 2% to $65.6 million during 2022 and $10.5 million or 19% to $64.6 million during 2021 from $54.1 million during 2020. The increase in 2021 was primarily attributable to technology and automation projects completed during the year and the acquisitions completed in the fourth quarter of 2020.

On October 18, 2022, the FDIC finalized a rule that would increase initial base deposit insurance assessment rates by 2 basis point, beginning with the first quarterly assessment period of 2023. Management estimates FDIC insurance expense, which is included within professional fees, will increase $3-$4 million due to the change in assessment rates.

Advertising
Advertising expense decreased $1.0 million or 14% to $6.2 million during 2022 from $7.3 million during 2021. During 2021, advertising expense increased $2.0 million or 39% to $7.3 million from $5.2 million for the year ended December 31, 2020, which was primarily attributable to the resumption of in-person customer events.

Core Deposit Intangibles and Customer Relationship Intangibles Amortization
Core deposit intangibles and customer relationship intangibles amortization totaled $7.8 million during 2022 compared to $9.4 million during 2021, which was a decrease of $1.6 million or 17%. Core deposit intangibles and customer relationship intangibles amortization totaled $9.4 million during 2021 compared to $10.7 million during 2020, which was a decrease of $1.3 million or 12%. The decreases for the years ended December 31, 2022 and 2021 were attributable the amortization of core deposit intangibles and customer relationship intangibles from recent acquisitions.

(Gain) loss on sales/valuations of assets, net
Net gains on sales/valuations of assets totaled $1.0 million during 2022 compared to net losses on sales/valuations of assets of $588,000 during 2021 and $5.1 million during 2020. During 2022, two branches in Illinois were sold for a gain of $3.0 million, and a gain of $413,000 was recorded in conjunction with the sale of an insurance subsidiary. These gains were partially offset by losses and writedowns totaling $1.5 million associated with branch optimization activities.

During the fourth quarter of 2021, HTLF recorded $424,000 of fixed asset write-downs related to twelve properties, which included seven bank branches and five operation centers, listed as held for sale at the end of 2021. During the second half of 2020, HTLF recorded $3.5 million of fixed asset write-downs related to eight branch consolidations.

Acquisition, integration and restructuring expenses
Acquisition, integration and restructuring expenses totaled $7.6 million for the year ended December 31, 2022, which was an increase of $2.3 million or 42% from $5.3 million for the year ended December 31, 2021. The increase was primarily attributable to the progression of the charter consolidation project. Management estimates acquisition, integration and restructuring expenses of approximately $10 million will be incurred through the end of 2023 for the charter consolidation project.

Partnership Investment in Tax Credit Projects
Partnership investment in tax credit projects totaled $5.0 million, $6.3 million and $3.8 million for the years ended December 31, 2022, 2021 and 2020, respectively. The expense is dependent upon the number of tax credit projects placed in service during the year.

EFFICIENCY RATIO

One of HTLF's strategic priorities is to improve its efficiency ratio, on a fully tax-equivalent basis (non-GAAP), with the goal of maintaining it at or below 57%. The efficiency ratio, fully tax-equivalent (non-GAAP), was 57.74% for 2022, 59.48% for 2021 compared to 56.65% for 2020.

The efficiency ratio for 2022 was positively impacted by higher net interest income, which was partially offset by increases in noninterest expenses as noted above.

HTLF continues to pursue strategies to improve operational efficiency, which include the following initiatives:

Consolidation of its eleven bank charters
Charter consolidation is designed to eliminate redundancies and improve our operating efficiency and capacity to support ongoing product and service enhancements as well as current and future growth. Through December 31, 2022, five charters have been consolidated into HTLF Bank, and subsequent to December 31, 2022, one additional charter was consolidated. The consolidated charters are now operating as divisions of HTLF Bank. The remaining five charters are expected to be consolidated in 2023.

Consolidation restructuring costs are projected to be $19-20 million with approximately $10 million of expenses remaining to be incurred through 2023. Total costs incurred since the project started in the fourth quarter of 2021 through December 31, 2022 were $9.3 million. HTLF realized some operating efficiencies and financial benefits in the second half of 2022 with the completion of five charter consolidations. The resulting efficiencies and expansion in capacity are projected to generate benefits of approximately $20.0 million annually when the project is completed with core operating expenses expected to decline to 2.10% or less of average assets.

Branch optimization strategy
During the year ended December 31, 2022, HTLF's branch network was reduced by 11 locations.

See "Financial Highlights" in Item 7 of this Annual Report on Form 10-K for a description of the calculation of the efficiency ratio on a fully tax-equivalent basis, which is a non-GAAP financial measure.

INCOME TAXES

HTLF's effective tax rate was 20.8% for 2022 compared to 20.1% for 2021 and 20.7% for 2020. The following items impacted HTLF's 2022, 2021 and 2020 tax calculations:

- Solar energy tax credits of $4.2 million, $6.1 million and $2.3 million.
- Federal low-income housing tax credits of $1.1 million, $540,000 and $780,000.
- Historic rehabilitation tax credits of $1.0 million, $720,000 and $1.1 million.
- New markets tax credits of $300,000 in each annual calculation.
- Tax-exempt interest income as a percentage of pre-tax income of 11.8%, 9.9% and 11.8%.
- The tax-equivalent adjustment for this tax-exempt interest income was $8.4 million, $7.2 million and $5.5 million.
- Tax benefits of $165,000, $491,000 and $617,000 related to the release of valuation allowances on deferred tax assets.

FINANCIAL CONDITION

HTLF's total assets were $20.24 billion at December 31, 2022, an increase of $969.7 million or 5% since December 31, 2021. HTLF's total assets were $19.27 billion at December 31, 2021, an increase of $1.37 billion or 8% compared to $17.91 billion at December 31, 2020.

LENDING ACTIVITIES

HTLF's board of directors establishes an acceptable level of credit risk appetite, and certain lending policies and procedures are in place that are designed to provide for an acceptable level of credit risk. Management and the HTLF board of directors are frequently provided reports related to loan production, loan quality, concentrations of credit, loan delinquencies and nonperforming loans and potential problem loans.

HTLF originates commercial and industrial loans and owner occupied commercial real estate loans for a wide variety of business purposes, including lines of credit for working capital and operational purposes and term loans for the acquisition of equipment and real estate. Although most loans are made on a secured basis, loans may be made on an unsecured basis if warranted by the overall financial condition of the borrower. Terms of commercial business loans generally range from one to five years. Commercial loans are primarily made based on the identified cash flow of the borrower and secondarily on the underlying collateral provided by the borrower. The risks in the commercial and industrial portfolio include the unpredictability of the cash flow of the borrowers and the variability in the value of the collateral securing the loans. Owner occupied commercial real estate loans are dependent upon the cash flow of the borrowers and the collateral value of the real estate.

In 2021, HTLF originated $473.9 million of PPP loans ("PPP II"). HTLF originated $1.20 billion of PPP loans ("PPP I") during 2020, and HTLF acquired $53.1 million of PPP loans in the AimBank transaction. At December 31, 2022, HTLF had $1.4 million of PPP I loans outstanding, and $9.6 million of PPP II loans outstanding. Under the CARES Act, all PPP loans are 100% SBA guaranteed, and borrowers may be eligible to have an amount up to the entire principal balance forgiven and paid by the SBA. All PPP loans also carry a zero risk rating for regulatory capital purposes. Because these loans are 100% guaranteed by the SBA, there is no allowance recorded related to the PPP loans.

Non-owner occupied commercial real estate loans provide financing for various non-owner occupied or income producing properties. Real estate construction loans are generally short-term or interim loans that provide financing for acquiring or developing commercial income properties, multi-family projects or single-family residential homes. The collateral required for most of these loans is based upon the discounted market value of the collateral. Non-owner occupied commercial real estate loans are typically dependent, in large part, on sufficient income from the properties securing the loans to cover the operating expenses and debt service. Real estate construction loans involve additional risks because funds are advanced based upon estimates of costs and the estimated value of the completed project. Additionally, real estate construction loans have a greater risk of default in a weaker economy because the source of repayment is reliant on the successful and timely sale of the project. Personal guarantees are frequently required as a tertiary form of repayment. In addition, when underwriting loans for commercial real estate, careful consideration is given to the property's operating history, future operating projections, current and projected occupancy, location and physical condition.

Agricultural and agricultural real estate loans, many of which are secured by crops, machinery and real estate, are provided to finance capital improvements and farm operations as well as acquisitions of livestock and machinery. Agricultural and agricultural real estate loans present unique credit risks relating to adverse weather conditions, loss of livestock due to disease or other reasons, declines in market prices for agricultural products and the impact of government regulations. The ultimate repayment of agricultural and agricultural real estate loans is dependent upon the profitable operation or management of the agricultural entity. Loans secured by farm equipment, livestock or crops may not provide an adequate source of repayment because of damage or depreciation. In underwriting agricultural and agricultural real estate loans, lending personnel work closely with their customers to review budgets and cash flow projections for crop production for the ensuing year. These budgets and cash flow projections are monitored closely during the year and reviewed with the customers at least annually. Lending personnel work closely with governmental agencies, including the U.S. Small Business Administration and U.S. Department of Agriculture's Rural Development Business and Industry Program Farm Service Agency, to help agricultural customers obtain credit enhancement products, such as loan guarantees, longer-term funding or interest assistance, to reduce risk.

Lenders at each Bank are complimented by HTLF Specialized Industries, a centralized team of middle-market lenders focused on specific industries and more complex loan structures. The expertise of this team includes the commercial real estate, healthcare, and food and agribusiness industries, as well as swaps, syndications, trade and franchise financing.

Residential real estate loans are originated for the purchase or refinancing of single family residential properties. Residential real estate loans are dependent upon the borrower's ability to repay the loan and the underlying collateral value. In certain Bank Markets, residential mortgage loans are originated through PrimeWest, a division of First Bank & Trust, and sold to the secondary market with servicing retained. The Banks also provide residential mortgage loans to their customers that are retained and serviced by the originating Bank. In 2022, HTLF began partnering with a third-party mortgage loan provider to facilitate the residential mortgage lending needs of customers in selected Bank Markets.

Consumer lending includes motor vehicle, home improvement, home equity and small personal credit lines. Consumer loans typically have shorter terms, lower balances, higher yields and higher risks of default than one-to-four-family residential mortgage loans. Consumer loan collections are dependent on the borrower's continuing financial stability and are therefore more likely to be affected by adverse personal circumstances. Risk is reduced through underwriting criteria, which include credit verification, appraisals, a review of the borrower's financial condition, and personal cash flows. A security interest, with title insurance when necessary, is taken in the underlying real estate.

At December 31, 2022, $265.8 million or 52% of the consumer loan portfolio were in home equity lines of credit ("HELOCs") compared to $212.6 million or 51% at December 31, 2021. Under our policy guidelines for the underwriting of these lines of credit, the customer may generally receive advances of up to 80% of the value of the property.

The Banks have not been active in the origination of subprime loans. Consistent with our community-focused banking model, which includes meeting the legitimate credit needs within the communities served, the Banks may make loans to borrowers possessing subprime characteristics only if there are mitigating factors present that reduce the potential default risk of the loan.

HTLF's major source of income is interest on loans. The table below presents the composition of HTLF's loan portfolio at the end of the years indicated, in thousands:

	As of December 31,					
	2022		2021		2020	
	Amount	%	Amount	%	Amount	%
Loans receivable held to maturity:						
Commercial and industrial	$ 3,464,414	30.31 %	$ 2,645,085	26.57 %	$ 2,534,799	25.29 %
Paycheck Protection Program ("PPP")	11,025	0.10	199,883	2.01	957,785	9.56
Owner occupied commercial real estate	2,265,307	19.82	2,240,334	22.51	1,776,406	17.72
Non-owner occupied commercial real estate	2,330,940	20.40	2,010,591	20.20	1,921,481	19.17
Real estate construction	1,076,082	9.42	856,119	8.60	863,220	8.61
Agricultural and agricultural real estate	920,510	8.05	753,753	7.57	714,526	7.13
Residential real estate	853,361	7.47	829,283	8.33	840,442	8.39
Consumer	506,713	4.43	419,524	4.21	414,392	4.13
Total loans receivable held to maturity	11,428,352	100.00 %	9,954,572	100.00 %	10,023,051	100.00 %
Allowance for credit losses	(109,483)		(110,088)		(131,606)	
Loans receivable, net	$11,318,869		$ 9,844,484		$ 9,891,445	

Loans held for sale totaled $5.3 million at December 31, 2022, and $21.6 million at December 31, 2021, which were primarily residential mortgage loans.

The table below sets forth the remaining maturities of loans held to maturity by category as of December 31, 2022, in thousands. Maturities are based upon contractual dates.

		Over 1 Year Through 5 Years		Over 5 Years Through 15 Years		Over 15 Years		
	One Year or Less	Fixed Rate	Floating Rate	Fixed Rate	Floating Rate	Fixed Rate	Floating Rate	Total
Commercial and industrial	$ 1,051,478	$ 615,482	$ 987,458	$ 468,283	$ 285,533	$ 27,635	$ 28,545	$ 3,464,414
PPP	11,025	—	—	—	—	—	—	11,025
Owner occupied commercial real estate	209,937	561,121	334,722	523,746	349,619	85,179	200,983	2,265,307
Non-owner occupied commercial real estate	344,212	596,950	669,435	344,801	301,731	9,672	64,139	2,330,940
Real estate construction	396,520	167,540	331,101	110,288	65,581	720	4,332	1,076,082
Agricultural and agricultural real estate	274,185	86,552	252,391	5,050	218,739	306	83,287	920,510
Residential real estate	84,464	203,201	72,165	238,186	107,858	40,525	106,962	853,361
Consumer	49,253	63,832	331,932	54,499	6,322	736	139	506,713
Total	$ 2,421,074	$ 2,294,678	$ 2,979,204	$ 1,744,853	$ 1,335,383	$ 164,773	$ 488,387	$ 11,428,352

Total loans

Total loans held to maturity were $11.43 billion at December 31, 2022, compared to $9.95 billion at year-end 2021, an increase of $1.47 billion or 15%. Excluding changes in total PPP loans, loans increased $1.66 billion or 17% since year end 2021.

Total loans held to maturity were $9.95 billion at December 31, 2021, compared to $10.02 billion at year-end 2020, a decrease of $68.5 million or 1%. Excluding changes in total PPP loans, loans increased $689.4 million or 8% since year-end 2020.

The table below shows the changes in loan balances by loan category for the years indicated, in thousands:

	As of December 31,			% Change	
	2022	2021	2020	2022/2021	2021/2020
Commercial and industrial	$ 3,464,414	$ 2,645,085	$ 2,534,799	31 %	4 %
PPP	11,025	199,883	957,785	(94)	(79)
Owner occupied commercial real estate	2,265,307	2,240,334	1,776,406	1	26
Non-owner occupied commercial real estate	2,330,940	2,010,591	1,921,481	16	5
Real estate construction	1,076,082	856,119	863,220	26	(1)
Agricultural and agricultural real estate	920,510	753,753	714,526	22	5
Residential real estate	853,361	829,283	840,442	3	(1)
Consumer	506,713	419,524	414,392	21	1
Total	$ 11,428,352	$ 9,954,572	$10,023,051	15 %	(1)%

The loan growth in 2022 was primarily in commercial, commercial real estate, real estate construction and agricultural and agricultural real estate portfolios, which was attributable to an emphasis on organic loan growth, expansion of specific commercial and agribusiness lending teams and further market penetration in various Bank Markets.

Commercial and industrial loans

Commercial and industrial loans totaled $3.46 billion at December 31, 2022, compared to $2.65 billion at December 31, 2021, and $2.53 billion at December 31, 2020. Changes to commercial and industrial loans for the years ended December 31, 2022 and 2021 were:

- Commercial and industrial loans increased $819.3 million or 31% since December 31, 2022, and included an increase of $16.6 million of government guaranteed loans.
- Commercial and industrial loans increased $110.3 million or 4% since December 31, 2020, and included an increase of $25.8 million of government guaranteed loans.

PPP loans

At December 31, 2022, HTLF had $1.4 million of PPP I loans outstanding, and $9.6 million of PPP II loans outstanding. At December 31, 2021, HTLF had $27.1 million of PPP I loans outstanding, which was net of $118,000 of unamortized deferred fees, and $172.8 million of PPP II loans outstanding, which was net of $6.4 million of unamortized deferred fees. As of December 31, 2022, approximately 99% of total PPP loans had been forgiven.

Owner occupied commercial real estate loans

Owner occupied commercial real estate loans totaled $2.27 billion at December 31, 2022, compared to $2.24 billion at December 31, 2021, and $1.78 billion at year-end 2020. Changes to owner occupied real estate loans for the years ended December 31, 2022 and 2021 were:

- Owner occupied commercial real estate loans increased $25.0 million or 1% during 2022 and included an increase of $38.1 million of government guaranteed loans.
- Owner occupied commercial real estate loans increased $463.9 million or 26% during 2021 and included an increase of $249.7 million of government guaranteed loans.

Non-owner occupied commercial real estate loans

Non-owner occupied commercial real estate loans totaled $2.33 billion at December 31, 2022, compared to $2.01 billion at December 31, 2021 and $1.92 billion at year-end 2020. Changes to non-owner occupied commercial real estate loans for the years ended December 31, 2022 and 2021 were:

- Non-owner occupied commercial loans increased $320.3 million or 16% during the year ended December 31, 2022, and included an increase of $22.9 million of government guaranteed loans.
- Non-owner occupied commercial loans increased $89.1 million or 5% during the year ended December 31, 2021, and included an increase of $46.2 million of government guaranteed loans.

Real estate construction loans
Real estate construction loans totaled $1.08 billion at December 31, 2022, compared to $856.1 million at December 31, 2021, and $863.2 million at year-end 2020. Changes to real estate construction loans for the years ended December 31, 2022 and 2021 were:

- Real estate construction loans increased $220.0 million or 26% during the year ending December 31, 2022.
- Real estate construction loans decreased $7.1 million or 1% during the year ended December 31, 2021.

Agricultural and agricultural real estate loans
Agricultural and agricultural real estate loans totaled $920.5 million at December 31, 2022, compared to $753.8 million at December 31, 2021 and $714.5 million at year-end 2020. Changes to agricultural and agricultural real estate loans for the years ended December 31, 2022 and 2021 were:

- Agricultural and agricultural real estate loans increased $166.8 million or 22% during 2022, which included an increase of $40.3 million of government guaranteed loans.
- Agricultural and agricultural real estate loans increased $39.2 million or 5% during 2021 and included an increase of $36.7 million of government guaranteed loans.

Residential real estate loans
Residential real estate loans totaled $853.4 million at December 31, 2022, compared to $829.3 million at December 31, 2021, and $840.4 million at December 31, 2020. Changes to residential real estate loans for the years ended December 31, 2022 and 2021 were:

- Residential real estate loans increased $24.1 million or 3% during the year ending December 31, 2022.
- Residential real estate loans decreased $11.2 million or 1% during the year end December 31, 2021.

Consumer loans
Consumer loans totaled $506.7 million at December 31, 2022, compared to $419.5 million at December 31, 2021, and $414.4 million at year-end 2020. Changes to consumer loans for the years ended December 31, 2022 and 2021 were:

- For the year ended December 31, 2022, consumer loans increased $87.2 million or 21%.
- For the year ended December 31, 2021, consumer loans increased $5.1 million or 1%.

Although repayment risk exists on all loans, different factors influence repayment risk for each type of loan. The primary risks associated with commercial, commercial real estate and agricultural loans are the quality of the borrower's management and the health of national and regional economies. Additionally, repayment of commercial real estate, real estate construction and agricultural real estate loans may be influenced by fluctuating property values and concentrations of loans in a specific type of real estate. Repayment on loans to individuals, including those secured by residential real estate, are dependent on the borrower's continuing financial stability as well as the value of the collateral underlying these credits, and thus are more likely to be affected by adverse personal circumstances and deteriorating economic conditions. These risks are described in more detail in Item 1A. "Risk Factors" of this Annual Report on Form 10-K. We monitor loan concentrations and do not believe we have excessive concentrations in any specific industry.

Our strategy with respect to the management of these types of risks, whether loan demand is weak or strong, is to encourage the Banks to follow tested and prudent loan policies and underwriting practices, which include: (i) making loans on a sound and collectible basis; (ii) verifying that primary and secondary sources of repayment are adequate in relation to the amount of the loan; (iii) administering loan policies through a board of directors; (iv) developing and maintaining adequate diversification of the loan portfolio as a whole and of the loans within each loan category; and (v) appropriately documenting each loan and augmenting government guaranteed lending programs and adequate insurance.

We regularly monitor and continue to develop systems to oversee the quality of our loan portfolio. Under our internal loan review program, loan review officers are responsible for reviewing existing loans, testing loan ratings assigned by loan officers, identifying potential problem loans and monitoring the adequacy of the allowance for credit losses at the Banks. An integral part of our loan review program is a loan rating system, under which a rating is assigned to each loan within the portfolio based on the borrower's financial position, repayment ability, collateral position and repayment history.

ALLOWANCE FOR CREDIT LOSSES

The process utilized by HTLF to determine the appropriateness of the allowance for credit losses is considered a critical accounting practice for HTLF. The allowance for credit losses represents management's estimate of lifetime losses in the existing loan portfolio. For additional details on the specific factors considered in determining the allowance for credit losses, refer to the critical accounting estimates section of this Annual Report on Form 10-K and Note 1, "Basis of Presentation," of the consolidated financial statements included in this Annual Report on Form 10-K.

Total Allowance for Lending Related Credit Losses

The following table shows, in thousands, the components of HTLF's total allowance for lending related credit losses, which includes the allowance for credit losses for loans and the allowance for unfunded commitments, as of the dates indicated:

	December 31,					
	2022		2021		2020	
	Amount	% of Allowance	Amount	% of Allowance	Amount	% of Allowance
Quantitative	$ 84,409	65.09 %	$ 88,635	70.59 %	$ 102,398	69.71 %
Qualitative/Economic Forecast	45,270	34.91	36,915	29.41	44,488	30.29
Total	$ 129,679	100.00 %	$ 125,550	100.00 %	$ 146,886	100.00 %

Quantitative Allowance
The quantitative allowance of HTLF's total allowance for lending related credit losses totaled $84.4 million at December 31, 2022, compared to $88.6 million at December 31, 2021, which was a decrease of $4.2 million or 5%. The following items impacted the quantitative allowance at December 31, 2022:

- Nonpass loans totaled $533.3 million or 5% of the total loan portfolio, which was a decrease of $207.9 million or 28% from nonpass loans of $741.3 million at December 31, 2021.
- Loans delinquent 30-89 days totaled $4.8 million or 4 basis points of total loans, which was a decrease of $2.6 million or 35% from $7.4 million or 7 basis points of total loans at December 31, 2021.
- Specific reserves for individually assessed loans totaled $7.1 million, which was a decrease of $537,000 or 7% from $7.6 million at December 31, 2021.

The following items impacted the quantitative allowance at December 31, 2021:

- Nonpass loans totaled $741.3 million at December 31, 2021, which was a decrease of $341.4 million or 32% from $1.08 billion at December 31, 2020.
- Government guaranteed loans, for which no provision is required, increased $358.3 million during 2021.
- Specific reserves for individually assessed loans totaled $7.6 million, which was a decrease of $1.8 million or 19% from $9.4 million at December 31, 2020.

Qualitative Allowance /Economic Forecast
The qualitative allowance of HTLF's total allowance increased $8.4 million or 23% to $45.3 million at December 31, 2022, compared to $36.9 million at December 31, 2021. Management's assessment of the non-economic risk factors in the qualitative calculation reflected the healthy, current credit environment.

HTLF has access to various third-party economic forecast scenarios provided by Moody's, which are updated quarterly in HTLF's methodology. HTLF continued to use a one year reasonable and supportable forecast period. At December 31, 2022, Moody's December 9, 2022 baseline forecast scenario was utilized, and management also considered other downturn forecast scenarios, which anticipated a moderate recession developing within the next twelve months, in addition to the baseline forecast to support the macroeconomic outlook used in the allowance for credit losses calculation.

The qualitative allowance of HTLF's total allowance decreased $7.6 million or 17% to $36.9 million at December 31, 2021, compared to $44.5 million at December 31, 2020. Management's assessment for December 31, 2021, reflected a decreased level of qualitative adjustment based on improving market conditions and credit quality trends. The economic outlook factors used to develop the allowance retained a measured level of caution and uncertainty that management deemed appropriate for lingering economic headwinds, such as COVID-19 variants, supply chain challenges, and workforce shortages and wage pressures.

Allowance for Credit Losses-Loans

The table below presents the changes in the allowance for credit losses for loans for the years ended December 31, 2022 and 2021, in thousands:

	For the Year Ended December 31,	
	2022	2021
Balance at beginning of period	$ 110,088	$ 131,606
Provision (benefit) for credit losses	10,636	(17,706)
Recoveries on loans previously charged off	7,055	4,931
Charge-offs on loans	(18,296)	(8,743)
Balance at end of period	$ 109,483	$ 110,088
Allowance for credit losses for loans as a percent of loans	0.96 %	1.11 %
Allowance for credit losses for loans as a percentage of nonaccrual loans	188.01	158.70
Allowance for credit losses for loans a percentage of non-performing loans	187.14	157.45

The allowance for credit losses for loans totaled $109.5 million at December 31, 2022, compared to $110.1 million at December 31, 2021, which was a decrease of $605,000 or less than 1%. The allowance for credit losses for loans at December 31, 2022, was 0.96% of loans compared to 1.11% of loans at December 31, 2021. The following items impacted HTLF's allowance for credit losses for loans for the year ended December 31, 2022:

- Provision expense totaled $10.6 million, which was primarily attributable to loan growth and deterioration of macroeconomic factors compared to 2021, partially offset by a current healthy credit environment.
- Net charge-offs totaled $11.2 million or 0.11% of average loans outstanding. Included in net charge-offs were two charge-offs due to customer fraud totaling $9.2 million related to two lending relationships which had collateral deficiencies. A charge-off of $2.6 million was recorded for one-agricultural-related credit that had been substantially reserved for in a prior year. HTLF recorded one notable recovery on a commercial and industrial loan of $3.0 million in the fourth quarter of 2022.
- Nonpass loans totaled $533.3 million or 5% of the total loan portfolio, which was a decrease of $207.9 million or 28% from nonpass loans of $741.3 million at December 31, 2021.

The following items impacted HTLF's allowance for credit losses for loans for the year ended December 31, 2021:

- Provision benefit totaled $17.7 million, which was primarily attributable to improved macroeconomic factors compared to 2020.
- Net charge-offs totaled $3.8 million or 0.04% of average loans outstanding.
- Nonpass loans totaled $741.3 million at December 31, 2021, which was a decrease of $341.4 million or 32% from $1.08 billion at December 31, 2020.
- Government guaranteed loans, for which no provision is required, increased $358.3 million during 2021.

The table below summarizes activity in the allowance for credit losses for loans for the years indicated, including amounts of loans charged off, amounts of recoveries and additions to the allowance charged to income. the ratio of net charge-offs to average loans outstanding, in thousands:

	As of December 31,		
	2022	2021	2020
Balance at beginning of year	$ 110,088	$ 131,606	$ 70,395
Impact of ASU 2016-13 adoption on January 1, 2020	—	—	12,071
Adjusted balance	110,088	131,606	82,466
Allowance for purchased credit deteriorated loans	—	—	12,313
Charge-offs:			
Commercial and industrial	6,964	2,150	14,974
Owner occupied commercial real estate	129	296	13,671
Non-owner occupied commercial real estate	193	1,637	45
Real estate construction	35	10	105
Agricultural and agricultural real estate	3,217	1,902	1,201
Residential real estate	307	181	515
Consumer	7,451	2,567	2,211
Total charge-offs	18,296	8,743	32,722
Recoveries:			
Commercial and industrial	4,951	3,058	1,277
Owner occupied commercial real estate	112	152	205
Non-owner occupied commercial real estate	60	33	30
Real estate construction	13	10	220
Agricultural and agricultural real estate	653	531	971
Residential real estate	—	13	108
Consumer	1,266	1,134	993
Total recoveries	7,055	4,931	3,804
Net charge-offs	11,241	3,812	28,918
Provision (benefit) for credit losses	10,636	(17,706)	65,745
Balance at end of year	$ 109,483	$ 110,088	$ 131,606
Net charge-offs to average loans	0.11 %	0.04 %	0.32 %

The following table shows the ratio of net charge-offs (recoveries) to average loans outstanding, which include nonaccrual loans and loans held for sale, by loan type for the years indicated, dollars in thousands:

	For the Years Ended December 31,		
	2022	2021	2020
Commercial and industrial			
Net charge-offs (recoveries)	$ 2,013	$ (908)	$ 13,697
Average loans	3,070,890	2,543,514	2,437,183
Net charge-offs (recoveries) to average loans	0.07 %	(0.04)%	0.56 %
Owner occupied commercial real estate			
Net charge-offs (recoveries)	$ 17	$ 144	$ 13,466
Average loans	2,272,088	1,950,014	1,480,109
Net charge-offs (recoveries) to average loans	— %	0.01 %	0.91 %
Non-owner occupied commercial real estate			
Net charge-offs (recoveries)	$ 133	$ 1,604	$ 15
Average loans	2,196,922	1,969,910	1,589,932
Net charge-offs (recoveries) to average loans	0.01 %	0.08 %	— %
Real estate construction			
Net charge-offs (recoveries)	$ 22	$ —	$ (115)
Average loans	923,316	824,055	1,007,086
Net charge-offs (recoveries) to average loans	— %	— %	(0.01)%
Agricultural and agricultural real estate			
Net charge-offs (recoveries)	$ 2,564	$ 1,371	$ 230
Average loans	778,526	681,493	538,646
Net charge-offs (recoveries) to average loans	0.33 %	0.20 %	0.04 %
Residential real estate			
Net charge-offs (recoveries)	$ 307	$ 168	$ 407
Average loans	852,541	846,573	793,821
Net charge-offs (recoveries) to average loans	0.04 %	0.02 %	0.05 %
Consumer			
Net charge-offs (recoveries)	$ 6,185	$ 1,433	$ 1,218
Average loans	464,084	407,592	410,013
Net charge-offs (recoveries) to average loans	1.33 %	0.35 %	0.30 %

The table below shows our allocation of the allowance for credit losses for loans by types of loans, in thousands:

	As of December 31,					
	2022		2021		2020	
	Amount	Loan Category to Gross Loans Receivable	Amount	Loan Category to Gross Loans Receivable	Amount	Loan Category to Gross Loans Receivable
Commercial and industrial	$ 29,071	30.31 %	$ 27,738	26.57 %	$ 38,818	25.29 %
PPP	—	0.10	—	2.01	—	9.56
Owner occupied commercial real estate	13,948	19.82	19,214	22.51	20,001	17.72
Non-owner occupied commercial real estate	16,539	20.40	17,908	20.20	20,873	19.17
Real estate construction	29,998	9.42	22,538	8.60	20,080	8.61
Agricultural and agricultural real estate	2,634	8.05	5,213	7.57	7,129	7.13
Residential real estate	7,711	7.47	8,427	8.33	11,935	8.39
Consumer	9,582	4.43	9,050	4.21	12,770	4.13
Total allowance for credit losses for loans	$ 109,483	100.00 %	$ 110,088	100.00 %	$ 131,606	100.00 %

Management allocates the allowance for credit losses for loans by pools of risk within each loan portfolio. The total allowance for credit losses is available to absorb losses from any segment of the loan portfolio.

Allowance for Unfunded Commitments

The following table shows, in thousands, the changes in HTLF's allowance for unfunded commitments for the years ended December 31, 2022, and December 31, 2021:

	For the Year Ended December 31,	
	2022	2021
Balance at beginning of year	$ 15,462	$ 15,280
Provision (benefit) for credit losses	4,734	182
Balance at end of year	$ 20,196	$ 15,462

The allowance for unfunded commitments totaled $20.2 million as of December 31, 2022, compared to $15.5 million as of December 31, 2021. Unfunded commitments totaled $4.73 billion at December 31, 2022, and $3.83 billion at December 31, 2021.

CREDIT QUALITY AND NONPERFORMING ASSETS

HTLF's internal rating system for the credit quality of its loans is a series of grades reflecting management's risk assessment, based on its analysis of the borrower's financial condition. The "pass" category consists of all loans that are not in the "nonpass" category and categorized into a range of loan grades that reflect increasing, though still acceptable, risk. Movement of risk through the various grade levels in the pass category is monitored for early identification of credit deterioration. For more information on this internal rating system, see Note 4, "Loans" of HTLF's consolidated financial statements in this Annual Report on Form 10-K.

HTLF's nonpass loans totaled $533.3 million or 5% of total loans as of December 31, 2022 compared to $741.3 million or 7% of total loans as of December 31, 2021. As of December 31, 2022, HTLF's nonpass loans consisted of approximately 48% watch loans and 52% substandard loans. The percent of nonpass loans on nonaccrual status as of December 31, 2022 was 11%. Included in HTLF's nonpass loans at December 31, 2022 were $2.7 million of nonpass PPP loans as a result of risk ratings on related credits. HTLF's risk rating methodology assigns a risk rating to the whole lending relationship. HTLF has no allowance recorded related to the PPP loans because of the 100% SBA guarantee.

As of December 31, 2021, HTLF's nonpass loans were comprised of approximately 50% watch loans and 50% substandard loans. The percent of nonpass loans on nonaccrual status as of December 31, 2021, was 9%.

Loans delinquent 30 to 89 days as a percent of total loans were 0.04% at December 31, 2022 compared to 0.07% at December 31, 2021.

The table below presents the amounts of nonperforming loans and other nonperforming assets on the dates indicated, in thousands:

	As of December 31,		
	2022	2021	2020
Nonaccrual loans	$ 58,231	$ 69,369	$ 87,386
Loans contractually past due 90 days or more	273	550	720
Total nonperforming loans	58,504	69,919	88,106
Other real estate	8,401	1,927	6,624
Other repossessed assets	26	43	240
Total nonperforming assets	$ 66,931	$ 71,889	$ 94,970
Restructured loans[1]	$ 8,279	$ 817	$ 2,370
Nonaccrual loans to total loans receivable	0.51 %	0.70 %	0.87 %
Nonperforming loans to total loans receivable	0.51	0.70	0.88
Nonperforming assets to total loans receivable plus repossessed property	0.59	0.72	0.95
Nonperforming assets to total assets	0.33	0.37	0.53

(1) Represents accruing restructured loans performing according to their restructured terms.

The tables below summarize the changes in HTLF's nonperforming assets, including other real estate owned ("OREO") during 2022 and 2021, in thousands:

	Nonperforming Loans	Other Real Estate Owned	Other Repossessed Assets	Total Nonperforming Assets
December 31, 2021	$ 69,919	$ 1,927	$ 43	$ 71,889
Loan foreclosures	(9,841)	9,423	418	—
Net loan charge-offs	(11,241)	—	—	(11,241)
New nonperforming loans	34,249	—	—	34,249
Reduction of nonperforming loans[1]	(24,582)	—	—	(24,582)
OREO/Repossessed sales proceeds	—	(2,572)	(490)	(3,062)
OREO/Repossessed assets gains/(write-downs), net	—	(377)	55	(322)
December 31, 2022	$ 58,504	$ 8,401	$ 26	$ 66,931

(1) Includes principal reductions and transfers to performing status.

	Nonperforming Loans	Other Real Estate Owned	Other Repossessed Assets	Total Nonperforming Assets
December 31, 2020	$ 88,106	$ 6,624	$ 240	$ 94,970
Loan foreclosures	(3,252)	2,807	445	—
Net loan charge-offs	(3,812)	—	—	(3,812)
New nonperforming loans	35,719	—	—	35,719
Reduction of nonperforming loans[1]	(46,842)	—	—	(46,842)
OREO/Repossessed sales proceeds	—	(7,749)	(589)	(8,338)
OREO/Repossessed assets gains/(write-downs), net	—	245	(53)	192
December 31, 2021	$ 69,919	$ 1,927	$ 43	$ 71,889

(1) Includes principal reductions and transfers to performing status.

Nonperforming loans were $58.5 million or 0.51% of total loans at December 31, 2022, compared to $69.9 million or 0.70% of total loans at December 31, 2021.

Approximately 67%, or $39.0 million, of HTLF's nonperforming loans at December 31, 2022, had individual loan balances exceeding $1.0 million, the largest of which was $6.8 million. At December 31, 2021, approximately 58%, or $40.8 million, of HTLF's nonperforming loans had individual loan balances exceeding $1.0 million, the largest of which was $7.6 million. The portion of HTLF's nonresidential real estate nonperforming loans covered by government guarantees was $12.5 million at December 31, 2022, compared to $14.5 million at December 31, 2021.

Other real estate owned

Other real estate owned was $8.4 million at December 31, 2022, compared to $1.9 million at December 31, 2021. Liquidation strategies have been identified for all the assets held in other real estate owned. Management continues to market these properties through a systematic liquidation process instead of an immediate liquidation process in order to avoid discounts greater than the projected carrying costs. Proceeds from the sale of other real estate owned totaled $2.6 million in 2022 compared to $7.7 million in 2021.

Troubled debt restructured loans

In certain circumstances, we may modify the terms of a loan to maximize the collection of amounts due. In most cases, the modification is either a reduction in interest rate, conversion to interest only payments, extension of the maturity date or a reduction in the principal balance. Generally, the borrower is experiencing financial difficulties or is expected to experience difficulties in the near-term, so a concessionary modification is granted to the borrower that would otherwise not be considered. Restructured loans accrue interest as long as the borrower complies with the revised terms and conditions and has demonstrated repayment performance at a level commensurate with the modified terms over several payment cycles. Many of our loan restructurings occur on a case-by-case basis in connection with ongoing loan collection processes. We have also participated in certain restructuring programs for residential real estate borrowers. In general, certain residential real estate borrowers facing an interest rate reset that are current in their repayment status are allowed to retain the lower of their existing interest rate or the market interest rate as of their interest reset date.

We had an aggregate balance of $15.7 million in restructured loans at December 31, 2022, of which $7.4 million were classified as nonaccrual and $8.3 million were accruing according to the restructured terms. At December 31, 2021, we had an aggregate balance of $10.4 million in restructured loans, of which $9.5 million were classified as nonaccrual and $817,000 were accruing according to the restructured terms.

SECURITIES

The composition of HTLF's securities portfolio is managed to ensure liquidity needs are met while maximizing the return on the portfolio within the established risk appetite parameters. Securities represented 35% of HTLF's total assets at December 31, 2022, compared to 40% at December 31, 2021. Whenever possible, management intends to use a portion of the proceeds from maturities, paydowns and sales of securities to fund loan growth and repay borrowings. Total securities carried at fair value as of December 31, 2022, were $6.15 billion, a decrease of $1.38 billion or 18% since December 31, 2021. Total securities carried at fair value as of December 31, 2021, were $7.53 billion, an increase of $1.40 billion or 23% since December 31, 2020.

During the third quarter of 2022, HTLF transferred taxable municipal bonds with an amortized cost basis of $934.5 million and fair value of $748.3 million from available for sale to held to maturity. On the date of the transfer, accumulated other comprehensive income (loss) included $186.3 million of net unrealized losses, after tax, attributable to these securities, and the net unrealized losses will be amortized into interest income over the remaining life of the transferred securities. The bonds were transferred at fair value at the date of transfer. HTLF has the ability and intent to hold these securities to maturity.

The table below presents the composition of the securities portfolio, including securities carried at fair value, held to maturity net of allowance for credit losses and other, by major category, in thousands:

	As of December 31,					
	2022		2021		2020	
	Amount	% of Portfolio	Amount	% of Portfolio	Amount	% of Portfolio
U.S. treasuries	$ 31,699	0.45 %	$ 1,008	0.01 %	$ 2,026	0.03 %
U.S. agencies	43,135	0.61	193,384	2.51	166,779	2.65
Obligations of states and political subdivisions	1,708,840	24.24	2,169,742	28.19	1,724,066	27.40
Mortgage-backed securities - agency	1,772,105	25.13	2,349,289	30.52	1,355,270	21.54
Mortgage-backed securities - non-agency	2,181,876	30.94	1,743,379	22.65	1,449,116	23.03
Commercial mortgage-backed securities - agency	85,123	1.21	123,912	1.61	174,153	2.77
Commercial mortgage-backed securities - non-agency	659,459	9.35	600,888	7.81	252,767	4.02
Asset-backed securities	416,054	5.90	409,653	5.32	1,069,266	16.99
Corporate bonds	57,942	0.82	3,040	0.04	3,742	0.06
Equity securities	20,314	0.29	20,788	0.27	19,629	0.31
Other securities	74,567	1.06	82,567	1.07 %	75,253	1.20
Total securities	$ 7,051,114	100.00 %	$ 7,697,650	100.00 %	$ 6,292,067	100.00 %

HTLF's securities portfolio had an expected modified duration of 6.19 years as of December 31, 2022, compared to 5.26 years as of December 31, 2021, and 5.52 years as of December 31, 2020.

At December 31, 2022, we had $74.6 million of other securities, including capital stock in the various Federal Home Loan Banks ("FHLB") of which the Banks are members. All securities classified as other are held at cost.

The table below presents the contractual maturities for the debt securities classified as available for sale at December 31, 2022, by major category, in thousands. Expected maturities will differ from contractual maturities, as borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	Within One Year		After One But Within Five Years		After Five But Within Ten Years		After Ten Years		Mortgage and asset-backed and equity securities		Total	
	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
U.S. treasuries	$ —	— %	$ 31,699	3.24 %	$ —	— %	$ —	— %	$ —	— %	$ 31,699	3.24 %
U.S. agencies	—	—	755	2.66	26,648	1.43	15,732	4.41	—	—	43,135	2.52
Obligations of states and political subdivisions	488	2.45	2,951	1.37	11,661	1.86	864,337	2.16	—	—	879,437	2.16
Mortgage-backed securities - agency	—	—	—	—	—	—	—	—	1,772,105	2.50	1,772,105	2.50
Mortgage-backed securities - non-agency	—	—	—	—	—	—	—	—	2,181,876	3.95	2,181,876	3.95
Commercial mortgage-backed securities - agency	—	—	—	—	—	—	—	—	85,123	1.71	85,123	1.71
Commercial mortgage-backed securities - non-agency	—	—	—	—	—	—	—	—	659,459	6.48	659,459	6.48
Asset-backed securities	—	—	—	—	—	—	—	—	416,054	3.39	416,054	3.39
Corporate bonds	—	—	50,456	6.96	7,486	4.31	—	—	—	—	57,942	6.59
Equity securities	—	—	—	—	—	—	—	—	20,314	—	20,314	—
Total	$ 488	2.45 %	$ 85,861	5.36 %	$ 45,795	2.01 %	$ 880,069	2.20 %	$ 5,134,931	3.69 %	$6,147,144	3.48 %

The table below presents the contractual maturities for the debt securities classified as held to maturity at December 31, 2022, by major category, in thousands. Expected maturities will differ from contractual maturities, as borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	Within One Year		After One But Within Five Years		After Five But Within Ten Years		After Ten Years		Total	
	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
Obligations of states and political subdivisions	$ 1,233	3.80 %	$ 70,253	4.97 %	$ 129,072	4.54 %	$ 628,845	4.65 %	$829,403	4.66 %
Total	$ 1,233	3.80 %	$ 70,253	4.97 %	$ 129,072	4.54 %	$ 628,845	4.65 %	$829,403	4.66 %

The unrealized losses on HTLF's debt securities are the result of changes in market interest rates or widening of market spreads subsequent to the initial purchase of the securities and not related to concerns regarding the underlying credit of the issuers or the underlying collateral. For this reason and because we have the intent and ability to hold these investments until a market price recovery or to maturity and does not believe it will be required to sell the securities before maturity, no credit losses were recognized on these securities during the year ended December 31, 2022. See Note 3, "Securities" of the consolidated financial statements for further discussion regarding unrealized losses on our securities portfolio.

DEPOSITS

Total deposits were $17.51 billion as of December 31, 2022, compared to $16.42 billion as of December 31, 2021, an increase of $1.10 billion or 7%. At December 31, 2022, HTLF had wholesale deposits totaling $2.06 billion, of which $1.09 billion was included in savings deposits and $965.7 million was included in time deposits.

The mix of total deposits remains favorable, with demand deposits representing 33% at December 31, 2022, and 40% at December 31, 2021. Savings deposits represented 57% at December 31, 2022, and 54% at December 31, 2021.

The table below sets forth the distribution of our average deposit account balances and the average interest rates paid on each category of deposits for the years indicated, in thousands:

	For the Years Ended December 31,								
	2022			2021			2020		
	Average Deposits	Percent of Deposits	Average Interest Rate	Average Deposits	Percent of Deposits	Average Interest Rate	Average Deposits	Percent of Deposits	Average Interest Rate
Demand deposits	$ 6,131,760	36.01 %	— %	$ 6,230,851	39.74 %	— %	$ 4,554,479	36.85 %	— %
Savings	9,737,100	57.18	0.48	8,311,825	53.01	0.11	6,718,413	54.35	0.25
Time deposits	1,160,538	6.81	0.88	1,137,097	7.25	0.50	1,088,185	8.80	1.26
Total deposits	$ 17,029,398	100.00 %		$ 15,679,773	100.00 %		$ 12,361,077	100.00 %	

Total Average Deposits

- Total average deposits increased $1.35 billion or 9% during 2022 to $17.03 billion, which included an increase of $1.01 billion in wholesale deposits.
- Excluding wholesale deposits, 38% of our total average deposits were from our Midwestern Bank Markets, 39% were from our Southwestern Bank Markets, and 23% were from our Western Bank Markets in 2022.
- Total average deposits increased $3.32 billion or 27% during 2021 to $15.68 billion.

Average Demand Deposits

- Average demand deposits decreased $99.1 million or 2% to $6.13 billion during 2022.
- In 2022, 33% of our demand deposits were from our Midwestern Bank Markets, 40% were from our Southwestern Bank Markets, and 27% were from our Western Bank Markets.
- Average demand deposits increased $1.68 billion or 37% to $6.23 billion during 2021.

Average Savings Deposits

- Average savings deposits increased $1.43 billion or 17% to $9.74 billion during 2022, which included an increase of $847.3 million in average wholesale deposits.

- Excluding wholesale deposits, 41% of our savings deposits were from our Midwestern Bank Markets, 37% were from our Southwestern Bank Markets, and 22% were from our Western Bank Markets in 2022.
- Average savings deposits increased $1.59 billion or 24% to $8.31 billion during 2021.

Increases in deposit interest rates in 2022 encouraged customers to move deposit balances from non-interest bearing accounts to interest bearing accounts.

Average Time Deposits

- Average time deposits increased $23.4 million or 2% to $1.16 billion during 2022. Excluding average wholesale deposits of $163.3 million, average time deposits decreased $139.9 million or 12% during 2022.
- Excluding wholesale deposits, 30% of time deposits were from our Midwestern Bank Markets, 51% from our Southwestern Bank Markets, and 19% were from our Western Bank Markets.
- Average time deposits increased $48.9 million or 4% to $1.14 billion during 2021.

Average brokered time deposits as a percentage of total average deposits were less than 1% during 2021.

The following table sets forth the amount and maturities of time deposits of $100,000 or more at December 31, 2022, in thousands:

	December 31, 2022
3 months or less	$ 627,597
Over 3 months through 6 months	446,247
Over 6 months through 12 months	231,459
Over 12 months	193,676
Total	$ 1,498,979

The following table sets for the amount and maturities of time deposits of $250,000 or more, at December 31, 2022, in thousands:

	December 31, 2022
3 months or less	$ 566,739
Over 3 months through 6 months	402,067
Over 6 months through 12 months	177,834
Over 12 months	133,074
Total	$ 1,279,714

SHORT-TERM BORROWINGS

Short-term borrowings, which HTLF defines as borrowings with an original maturity of one year or less, were as follows as of December 31, 2022 and 2021, in thousands:

	As of December 31,		% Change
	2022	2021	2022/2021
Retail repurchase agreements	$ 95,303	$ 122,996	(23)%
Advances from the FHLB	50,000	—	100
Advances from the federal discount window	224,000	—	100
Other short-term borrowings	6,814	8,601	(21)
Total	$ 376,117	$ 131,597	186 %

Short-term borrowings generally include federal funds purchased, securities sold under agreements to repurchase, short-term FHLB advances and discount window borrowings from the Federal Reserve Bank. These funding alternatives are utilized in varying degrees depending on their pricing and availability. All the Banks own FHLB stock in one of the Chicago, Dallas, Des Moines or Topeka FHLBs, enabling them to borrow funds from their respective FHLB for short- or long-term purposes under a variety of programs. As of December 31, 2022, the amount of short-term borrowings was $376.1 million compared to $131.6 million at year-end 2021, an increase of $244.5 million.

All the Banks provide retail repurchase agreements to their customers as a cash management tool, which sweep excess funds from demand deposit accounts into these agreements. This source of funding does not increase the bank's reserve requirements. Although the aggregate balance of these retail repurchase agreements is subject to variation, the account relationships represented by these balances are primarily local. The balances of retail repurchase agreements were $95.3 million at December 31, 2022, compared to $123.0 million at December 31, 2021, a decrease of $27.7 million or 23%.

HTLF renewed its revolving credit line agreement with an unaffiliated bank on June 14, 2022. This revolving credit line agreement, which has $100.0 million of borrowing capacity, is included in short-term borrowings, and the primary purpose of this credit line agreement is to provide short-term liquidity to HTLF. HTLF had no advances on this line during 2022 or 2021, and no balance was outstanding on this line at December 31, 2022, and December 31, 2021.

OTHER BORROWINGS

The outstanding balances of other borrowings, which HTLF defines as borrowings with an original maturity date of more than one year, are shown in the table below, net of unamortized discount and issuance costs, in thousands, as of December 31, 2022 and 2021:

	As of December 31,		% Change
	2022	2021	2022/2021
Advances from the FHLB	$ 740	$ 898	(18)%
Trust preferred securities	148,284	147,316	1
Contracts payable for purchase of real estate and other assets	82	1,593	(95)
Subordinated notes	222,647	222,265	—
Total	$ 371,753	$ 372,072	— %

Other borrowings include all debt arrangements HTLF and its subsidiaries have entered into with original maturities that extend beyond one year, as listed in the table above. As of December 31, 2022, the amount of other borrowings was $371.8 million, a decrease of $319,000 or less than 1% since December 31, 2021.

On September 8, 2021, HTLF issued $150.0 million aggregate principal amount of Fixed-to-Floating Rate Subordinated Notes due 2031 (the "2021 subordinated notes"), which were issued at par with an underwriting discount of $1.9 million. The net proceeds of the 2021 subordinated notes totaled $147.6 million and were used for general corporate purposes. The 2021 subordinated notes have a fixed interest rate of 2.75% until September 15, 2026, at which time the interest rate will be reset quarterly to a benchmark interest rate, which is expected to be three-month term Secure Overnight Financing Rate ("SOFR") plus a spread of 210 basis points. The 2021 subordinated notes mature on September 15, 2031, and become redeemable at HTLF's option on September 15, 2026.

In 2014, HTLF issued $75.0 million of subordinated notes with a maturity date of December 30, 2024. The notes were issued at par with an underwriting discount of $1.1 million. The interest rate on the notes is fixed at 5.75% per annum payable semi-annually. The notes were sold to qualified institutional buyers, and the proceeds were used for general corporate purposes.

For regulatory purposes, $162.9 million of total subordinated notes qualified as Tier 2 capital as of December 31, 2022.

A schedule of HTLF's trust preferred offerings outstanding as of December 31, 2022, is as follows, in thousands:

	Amount Issued	Issuance Date	Interest Rate	Interest Rate as of 12/31/22	Maturity Date	Callable Date
Heartland Financial Statutory Trust IV	$ 10,310	03/17/2004	2.75% over LIBOR	7.49 %	03/17/2034	03/17/2023
Heartland Financial Statutory Trust V	20,619	01/27/2006	1.33% over LIBOR	5.41	04/07/2036	04/07/2023
Heartland Financial Statutory Trust VI	20,619	06/21/2007	1.48% over LIBOR	6.25	09/15/2037	03/15/2023
Heartland Financial Statutory Trust VII	18,042	06/26/2007	1.48% over LIBOR	6.24	09/01/2037	03/01/2023
Morrill Statutory Trust I	9,370	12/19/2002	3.25% over LIBOR	7.97	12/26/2032	03/26/2023
Morrill Statutory Trust II	9,087	12/17/2003	2.85% over LIBOR	7.59	12/17/2033	03/17/2023
Sheboygan Statutory Trust I	6,790	09/17/2003	2.95% over LIBOR	7.69	09/17/2033	03/17/2023
CBNM Capital Trust I	4,558	09/10/2004	3.25% over LIBOR	8.02	12/15/2034	03/15/2023
Citywide Capital Trust III	6,605	12/19/2003	2.80% over LIBOR	7.22	12/19/2033	04/23/2023
Citywide Capital Trust IV	4,468	09/30/2004	2.20% over LIBOR	6.89	09/30/2034	05/23/2023
Citywide Capital Trust V	12,424	05/31/2006	1.54% over LIBOR	6.31	07/25/2036	03/15/2023
OCGI Statutory Trust III	3,020	06/27/2002	3.65% over LIBOR	8.48	09/30/2032	03/30/2023
OCGI Capital Trust IV	5,511	09/23/2004	2.50% over LIBOR	7.27	12/15/2034	03/15/2023
BVBC Capital Trust II	7,319	04/10/2003	3.25% over LIBOR	7.69	04/24/2033	04/24/2023
BVBC Capital Trust III	9,582	07/29/2005	1.60% over LIBOR	6.35	09/30/2035	03/30/2023
Total trust preferred offerings	148,324					
Less: deferred issuance costs	(40)					
	$ 148,284					

CAPITAL RESOURCES

The Federal Reserve has adopted capital adequacy guidelines that are used to assess the adequacy of capital in supervising a bank holding company. Under Basel III, HTLF must hold a conservation buffer above the adequately capitalized risk-based capital ratios; however, the transition provision related to the conservation buffer have been extended indefinitely.

The most recent notification from the FDIC categorized HTLF and each of its Banks as well capitalized under the regulatory framework for prompt corrective action. There are no conditions or events since that notification that management believes have changed the categorization of any of these entities.

HTLF's capital ratios are calculated in accordance with Federal Reserve Board instructions and are required regulatory financial measures. The following table illustrates HTLF's capital ratios and the Federal Reserve's current capital adequacy guidelines for the dates indicated, in thousands. The table also indicates the fully-phased in capital conservation buffer, but the requirements to comply have been extended indefinitely.

	Total Capital (to Risk-Weighted Assets)	Tier 1 Capital (to Risk-Weighted Assets)	Common Equity Tier 1 (to Risk-Weighted Assets)	Tier 1 Capital (to Average Assets)
December 31, 2022	**14.76 %**	**11.81 %**	**11.07 %**	**9.13 %**
Minimum capital requirement	8.00	6.00	4.50	4.00
Well capitalized requirement	10.00	8.00	6.50	5.00
Minimum capital requirement, including fully-phased in capital conservation buffer	10.50	8.50	7.00	N/A
Risk-weighted assets	$ 14,937,128	$ 14,937,128	$ 14,937,128	N/A
Average assets	N/A	N/A	N/A	$19,322,778

	Total Capital (to Risk-Weighted Assets)	Tier 1 Capital (to Risk-Weighted Assets)	Common Equity Tier 1 (to Risk-Weighted Assets)	Tier 1 Capital (to Average Assets)
December 31, 2021	**15.90 %**	**12.39 %**	**11.53 %**	**8.57 %**
Minimum capital requirement	8.00	6.00	4.50	4.00
Well capitalized requirement	10.00	8.00	6.50	5.00
Minimum capital requirement, including fully-phased in capital conservation buffer	10.50	8.50	7.00	N/A
Risk-weighted assets	$ 12,829,318	$ 12,829,318	$ 12,829,318	N/A
Average assets	N/A	N/A	N/A	$18,553,872
December 31, 2020	**14.71 %**	**11.85 %**	**10.92 %**	**9.02 %**
Minimum capital requirement	8.00	6.00	4.50	4.00
Well capitalized requirement	10.00	8.00	6.50	5.00
Minimum capital requirement, including fully-phased in capital conservation buffer (2019)	10.50	8.50	7.00	N/A
Risk-weighted assets	$ 11,819,037	$ 11,819,037	$ 11,819,037	N/A
Average assets	N/A	N/A	N/A	$15,531,884

At December 31, 2022, retained earnings that could be available for the payment of dividends to meet the most restrictive minimum capital requirements totaled $702.2 million. Retained earnings that could be available for the payment of dividends to HTLF from its Banks totaled approximately $403.9 million at December 31, 2022, under the capital requirements to remain well capitalized. These dividends are the principal source of funds to pay dividends on HTLF's common and preferred stock and to pay interest and principal on its debt.

On June 26, 2020, HTLF issued and sold 4.6 million depositary shares, each representing a 1/400th interest in a share of 7.00% Fixed-Rate Reset Non-Cumulative Perpetual Preferred Stock, Series E. The depositary shares are listed on The Nasdaq Global Select Market under the symbol "HTLFP." If declared, dividends are paid quarterly in arrears at a rate of 7.00% per annum beginning on October 15, 2020. For the dividend period beginning on the first reset date of July 15, 2025, and for dividend periods beginning every fifth anniversary thereafter, each a reset date, the rate per annum will be reset based on a recent five-year treasury rate plus 6.675%. The earliest redemption date for the preferred shares is July 15, 2025. Dividends payable on common shares are subject to quarterly dividends payable on these outstanding preferred shares at the applicable dividend rate. The net proceeds of $110.7 million are being used for general corporate purposes, which include organic and acquired growth, financing investments, capital expenditures, investments in wholly-owned subsidiaries as regulatory capital and repayment of debt.

On August 8, 2022, HTLF filed a universal shelf registration statement with the SEC to register debt or equity securities. This shelf registration statement, which was effective immediately, provided HTLF with the ability to raise capital, subject to market conditions and SEC rules and limitations, if HTLF's board of directors decided to do so. This registration statement permitted HTLF, from time to time, in one or more public offerings, to offer debt securities, subordinated notes, common stock, preferred stock, rights or any combination of these securities. The amount of securities that may have been offered was not specified in the registration statement, and the terms of any future offerings were to be established at the time of the offering. The registration statement expires on August 8, 2025.

Common stockholders' equity was $1.62 billion at December 31, 2022, compared to $2.07 billion at year-end 2021. Book value per common share was $38.25 at December 31, 2022, compared to $49.00 at year-end 2021. Changes in common stockholders' equity and book value per common share are the result of earnings, dividends paid, stock transactions and mark-to-market adjustments for unrealized gains and losses on securities available for sale. HTLF's unrealized gains and losses on securities available for sale, net of applicable taxes, reflected unrealized losses of $619.2 million and $4.4 million at December 31, 2022, and December 31, 2021, respectively.

COMMITMENTS, CONTRACTUAL OBLIGATIONS AND OFF-BALANCE SHEET ARRANGEMENTS

The following table presents material fixed and determinable contractual obligations as of December 31, 2022, in thousands. Further discussion of each obligation is included in the referenced note to the consolidated financial statements.

		Payments Due In		
Obligation	**Note Reference**	**One Year or Less**	**More than One Year**	**Total**
Demand deposits	8	$ 5,701,340	$ —	$ 5,701,340
Savings deposits	8	9,994,391	—	9,994,391
Time deposits	8	1,531,996	285,282	1,817,278
Repurchase agreements	9	95,303	—	95,303
Advances from the FHLB	9	50,000	—	50,000
Advances from the federal discount window	9	224,000	—	224,000
Other borrowings	10	82	371,671	371,753
Total		$ 17,597,112	$ 656,953	$18,254,065

We also enter into financial instruments with off-balance sheet risk in the normal course of business to meet the financing needs of our customers. These financial instruments include commitments to extend credit and standby letters of credit, and are described in Note 14, "Commitments," to the consolidated financial statements for additional information on these commitments. As of December 31, 2022, and December 31, 2021, commitments to extend credit aggregated $4.73 billion and $3.83 billion, and standby letters of credit aggregated $55.1 million and $51.4 million, respectively.

At December 31, 2022, and December 31, 2021, HTLF's Banks had $682.9 million and $753.3 million, respectively, of standby letters of credit with the respective FHLB to secure public funds and municipal deposits.

We continue to explore opportunities to expand the size of our banking footprint by opportunistically augmenting organic growth by focusing on acquisition targets that complement or supplement our current banking strategy. This includes transactions that increase penetration in existing geographic Bank Markets and expansion into adjacent markets, as well as acquisitions of fee income businesses that complement and build on our existing businesses or further meet the needs of our customers. Future expenditures relating to expansion efforts cannot be estimated at this time.

We enter into mortgage banking derivatives, which are classified as free standing derivatives. These derivatives include interest rate lock commitments provided to customers to fund certain mortgage loans to be sold into the secondary market and forward commitments for the future delivery of such loans. We enter into forward commitments for the future delivery of residential mortgage loans when interest rate lock commitments are entered into in order to economically hedge the effect of future interest rate changes on the commitments to fund the loans as well as on the residential mortgage loans available for sale. We enter into risk participation agreements for credit protection should borrowers fail to perform on their interest rate derivative contracts. See Note 11, "Derivative Financial Instruments," to the consolidated financial statements for additional information on our derivative financial instruments.

Refer to "Liquidity" in Item 7 of this Annual Report on Form 10-K for further discussion regarding our cash flow and funding sources.

LIQUIDITY

Liquidity refers to our ability to maintain a cash flow that is adequate to meet maturing obligations and existing commitments, to withstand fluctuations in deposit levels, to fund operations and to provide for customers' credit needs. The liquidity of HTLF principally depends on cash flows from operating activities, investment in and maturity of assets, changes in deposit balances, maturity of time deposits and borrowings and its ability to borrow funds in the money or capital markets.

At December 31, 2022, HTLF had $363.1 million of cash and cash equivalents, time deposits in other financial institutions of $1.7 million and securities carried at fair value of $6.15 billion. Management expects the securities portfolio to produce cash flows exceeding $1 billion over the next twelve months.

Management of investing and financing activities, and market conditions, determine the level and the stability of net interest cash flows. Management attempts to mitigate the impact of changes in market interest rates to the extent possible, so that balance sheet growth is the principal determinant of growth in net interest cash flows.

HTLF's short-term borrowing balances are dependent on commercial cash management and smaller correspondent bank relationships and, as a result, will normally fluctuate. Management believes these balances, on average, to be stable sources of funds; however, HTLF intends to rely on deposit growth and additional FHLB and discount window borrowings as needed in the future.

Additional funding is provided by long-term debt and short-term borrowings. In the event of short-term liquidity needs, HTLF's banks may purchase federal funds from each other or from correspondent banks and may also borrow from the Federal Reserve Bank. As of December 31, 2022, HTLF had $376.1 million of short-term borrowings outstanding.

As of December 31, 2022, HTLF had $371.8 million of long-term debt outstanding, and it is an important funding source because of its multi-year borrowing structure. Additionally, the Banks' FHLB memberships give them the ability to borrow funds for short-term and long-term purposes under a variety of programs, and at December 31, 2022, HTLF had $581.2 million of borrowing capacity under these programs. Additionally, at December 31, 2022, HTLF had $501.6 million of borrowing capacity at the Federal Reserve Banks' discount window.

HTLF is focused on loan growth and strives to fund the loan growth with the least expensive source of deposits, sales of securities or borrowings. Management believes it is unlikely HTLF would be required to sell securities at a loss for such funding needs. The securities portfolio is expected to produce cash flows exceeding $1 billion over the next twelve months, which could be used to fund loan growth. Additionally, growing deposits will continue to be a focus. HTLF offers the Insured Cash Sweep ("ICS") product accessed through the Intrafi network of financial institutions, which helps to reduce the amount of pledged securities.

On a consolidated basis, HTLF maintains a large balance of short-term securities that, when combined with cash from operations, HTLF believes are adequate to meet its funding obligations.

At the parent company level, routine funding requirements consist primarily of dividends paid to stockholders, debt service on revolving credit arrangements and trust preferred securities issuances, repayment requirements under other debt obligations and payments for acquisitions. The parent company obtains the funding to meet these obligations from dividends paid by its Banks and the issuance of debt and equity securities.

As of December 31, 2022, the parent company had cash of $307.0 million. Additionally, HTLF has a revolving credit agreement with an unaffiliated bank, which was most recently on June 14, 2022. HTLF's revolving credit agreement has $100.0 million of maximum borrowing capacity, of which none was outstanding at December 31, 2022. This credit agreement contains specific financial covenants, all of which HTLF complied with as of December 31, 2022.

The ability of HTLF to pay dividends to its stockholders is dependent upon dividends paid by its subsidiaries. The Banks are subject to statutory and regulatory restrictions on the amount they may pay in dividends. To maintain acceptable capital ratios in the HTLF Banks, certain portions of their retained earnings are not available for the payment of dividends. Retained earnings that could be available for the payment of dividends to HTLF under the regulatory capital requirements to remain well-capitalized totaled approximately $403.9 million as of December 31, 2022.

HTLF has filed a universal shelf registration statement with the SEC that provides HTLF the ability to raise both debt and capital, subject to SEC rules and limitations, if HTLF's board of directors decides to do so. This registration statement expires in August 2025.

Management believes that cash on hand, cash flows from operations and cash availability under existing borrowing programs and facilities will be sufficient to meeting any recurring and additional operating cash needs in 2023.

EFFECTS OF INFLATION

Consolidated financial data included in this report has been prepared in accordance with U.S. GAAP. Presently, these principles require reporting of financial position and operating results in terms of historical dollars, except for available for sale securities, trading securities, derivative instruments, certain impaired loans and other real estate which require reporting at fair value. Changes in the relative value of money due to inflation or recession are generally not considered.

In management's opinion, changes in interest rates affect the financial condition of a financial institution to a far greater degree than changes in the inflation rate. While interest rates are greatly influenced by changes in the inflation rate, they do not change at the same rate or in the same magnitude as the inflation rate. Rather, interest rate volatility is based on changes in the expected rate of inflation, as well as on changes in monetary and fiscal policies. A financial institution's ability to be relatively unaffected by changes in interest rates is a good indicator of its capability to perform in today's volatile economic environment. HTLF seeks to insulate itself from interest rate volatility by ensuring that rate-sensitive assets and rate-sensitive liabilities respond to changes in interest rates in a similar time frame and to a similar degree. See Item 7A of this Annual Report on Form 10-K for a discussion on the process HTLF utilizes to mitigate market risk.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is the risk of loss arising from adverse changes in market prices and rates. HTLF's market risk is comprised primarily of interest rate risk resulting from its core banking activities of lending and deposit gathering. Interest rate risk measures the impact on earnings from changes in interest rates and the effect on current fair market values of HTLF's assets, liabilities and off-balance sheet contracts. The objective is to measure this risk and manage the balance sheet to avoid unacceptable potential for economic loss.

Management continually develops and applies strategies to mitigate market risk. Exposure to market risk is reviewed on a regular basis by the asset/liability committees of HTLF's Banks and, on a consolidated basis, by HTLF's executive management and board of directors. At least quarterly, a detailed review of the balance sheet risk profile is performed for HTLF and each of its Banks. Included in these reviews are interest rate sensitivity analyses, which simulate changes in net interest income in response to various interest rate scenarios. These analyses consider current portfolio rates, existing maturities, repricing opportunities and market interest rates, in addition to prepayments and growth under different interest rate assumptions. Selected strategies are modeled prior to implementation to determine their effect on HTLF's interest rate risk profile and net interest income.

The core interest rate risk analysis utilized by HTLF examines the balance sheet under increasing and decreasing interest rate scenarios that are neither too modest nor too extreme. All rate changes are ramped over a 12-month horizon based upon a parallel shift in the yield curve and then maintained at those levels over the remainder of the simulation horizon. Using this approach, management is able to see the effect that both a gradual change of rates (year 1) and a rate shock (year 2 and beyond) could have on HTLF's net interest income. Starting balances in the model reflect actual balances on the "as of" date, adjusted for material and significant transactions. Pro-forma balances remain static. This methodology enables interest rate risk embedded within the existing balance sheet structure to be isolated from the interest rate risk often caused by growth in assets and liabilities. The simulations under a decreasing interest rate scenario were prepared using a 100 basis point shift in rates. The most recent reviews at December 31, 2022, and 2021, provided the results below, in thousands.

	2022		2021	
	Net Interest Margin	% Change From Base	Net Interest Margin	% Change From Base
Year 1				
Down 100 Basis Points	$ 660,369	(0.82)%	$ 506,362	(2.54)%
Base	665,837		519,573	
Up 200 Basis Points	668,093	0.34 %	549,027	5.67 %
Year 2				
Down 100 Basis Points	680,644	2.22 %	466,779	(10.16)%
Base	706,450	6.10 %	503,949	(3.01)%
Up 200 Basis Points	720,307	8.18 %	565,414	8.82 %

We use derivative financial instruments to manage the impact of changes in interest rates on our future interest income or interest expense. We are exposed to credit-related losses in the event of nonperformance by the counterparties to these derivative instruments but believe we have minimized the risk of these losses by entering into the contracts with large, stable financial institutions. The estimated fair market values of these derivative instruments are presented in Note 11 to the consolidated financial statements.

We enter into financial instruments with off balance sheet risk in the normal course of business to meet the financing needs of our customers. These financial instruments include commitments to extend credit and standby letters of credit. These instruments involve, to varying degrees, elements of credit and interest rate risk in excess of the amount recognized in the consolidated balance sheets. 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 relating to the commitment. Commitments generally have fixed expiration dates and may require collateral from the borrower. Standby letters of credit are conditional commitments issued by HTLF to guarantee the performance of a customer to a third party up to a stated amount and with specified terms and conditions. These commitments to extend credit and standby letters of credit are not recorded on the balance sheet until the loan is made or the letter of credit is issued.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

HEARTLAND FINANCIAL USA, INC.
CONSOLIDATED BALANCE SHEETS
(Dollars in thousands, except per share data)

		As of December 31,	
	Notes	**2022**	**2021**
ASSETS			
Cash and due from banks	2	$ 309,045	$ 163,895
Interest bearing deposits with other banks and other short-term investments		54,042	271,704
Cash and cash equivalents		363,087	435,599
Time deposits in other financial institutions		1,740	2,894
Securities:			
Carried at fair value (cost of $6,788,729 at December 31, 2022, and cost of $7,536,338 at December 31, 2021)	3	6,147,144	7,530,374
Held to maturity, net of allowance for credit losses of $0 at both December 31, 2022, and December 31, 2021 (fair value of $776,557 at December 31, 2022, and $94,139 at December 31, 2021)	3	829,403	84,709
Other investments, at cost	3	74,567	82,567
Loans held for sale		5,277	21,640
Loans receivable:	4		
Held to maturity		11,428,352	9,954,572
Allowance for credit losses	4, 5	(109,483)	(110,088)
Loans receivable, net		11,318,869	9,844,484
Premises, furniture and equipment, net	6	190,479	204,999
Premises, furniture and equipment held for sale		6,851	10,828
Other real estate, net		8,401	1,927
Goodwill	7	576,005	576,005
Core deposit intangibles and customer relationship intangibles, net	7	25,154	32,988
Servicing rights, net	7	7,840	6,890
Cash surrender value on life insurance		193,403	191,722
Other assets		496,008	246,923
TOTAL ASSETS		**$ 20,244,228**	**$ 19,274,549**
LIABILITIES AND EQUITY			
LIABILITIES:			
Deposits:	8		
Demand		$ 5,701,340	$ 6,495,326
Savings		9,994,391	8,897,909
Time		1,817,278	1,024,020
Total deposits		17,513,009	16,417,255
Short-term borrowings	9	376,117	131,597
Other borrowings	10	371,753	372,072
Accrued expenses and other liabilities		248,294	171,447
TOTAL LIABILITIES		**18,509,173**	**17,092,371**
STOCKHOLDERS' EQUITY:	15, 16, 17		
Preferred stock (par value $1 per share; authorized 6,104 shares; none issued or outstanding at both December 31, 2022, and December 31, 2021)		—	—
Series A Junior Participating preferred stock (par value $1 per share; authorized 16,000 shares; none issued or outstanding at both December 31, 2022, and December 31, 2021)		—	—
Series B Fixed-Rate Reset Cumulative Perpetual Preferred Stock (par value $1 per share; 81,698 shares authorized at both December 31, 2022, and December 31, 2021, none issued or outstanding at both December 31, 2022, and December 31, 2021)		—	—
Series C Senior Non-Cumulative Perpetual Preferred Stock (par value $1 per share; 81,698 shares authorized at both December 31, 2022, and December 31, 2021, none issued or outstanding at both December 31, 2022, and December 31, 2021)		—	—
Series D Senior Non-Cumulative Perpetual Convertible Preferred Stock (par value $1 per share; 3,000 shares authorized at both December 31, 2022, and December 31, 2021; none issued or outstanding at December 31, 2022, and December 31, 2021)		—	—
Series E Fixed-Rate Reset Non-Cumulative Perpetual Preferred Stock (par value $1 per share; 11,500 shares authorized at both December 31, 2022, and December 31, 2021; 11,500 shares issued and outstanding at both December 31, 2022, and December 31, 2021)		110,705	110,705
Common stock (par value $1 per share; 60,000,000 shares authorized at both December 31, 2022 and December 31, 2021; issued 42,467,394 shares at December 31, 2022, and 42,275,264 shares at December 31, 2021)		42,467	42,275
Capital surplus		1,080,964	1,071,956
Retained earnings		1,120,925	962,994
Accumulated other comprehensive loss		(620,006)	(5,752)
TOTAL STOCKHOLDERS' EQUITY		**1,735,055**	**2,182,178**
TOTAL LIABILITIES AND EQUITY		**$ 20,244,228**	**$ 19,274,549**

See accompanying notes to consolidated financial statements.

HEARTLAND FINANCIAL USA, INC.
CONSOLIDATED STATEMENTS OF INCOME
(Dollars in thousands, except per share data)

	Notes	For the Years Ended December 31, 2022	2021	2020
INTEREST INCOME:				
Interest and fees on loans	4	$ 477,970	$ 444,137	$ 424,941
Interest on securities:				
Taxable		169,544	125,010	98,263
Nontaxable		24,006	19,268	12,484
Interest on federal funds sold		11	1	—
Interest on interest bearing deposits in other financial institutions		3,125	344	924
TOTAL INTEREST INCOME		**674,656**	**588,760**	**536,612**
INTEREST EXPENSE:				
Interest on deposits	8	56,880	14,797	30,287
Interest on short-term borrowings		2,717	471	610
Interest on other borrowings (includes $246, $1,601, and $(1,820) of interest expense (benefit) related to derivatives reclassified from accumulated other comprehensive income (loss) for the years ended December 31, 2022, 2021, and 2020, respectively)	10, 11	16,823	12,932	13,986
TOTAL INTEREST EXPENSE		**76,420**	**28,200**	**44,883**
NET INTEREST INCOME		**598,236**	**560,560**	**491,729**
Provision (benefit) for credit losses	4, 5	15,370	(17,575)	67,066
NET INTEREST INCOME AFTER PROVISION FOR CREDIT LOSSES		**582,866**	**578,135**	**424,663**
NONINTEREST INCOME:				
Service charges and fees	20	68,031	59,703	47,467
Loan servicing income	7	2,741	3,276	2,977
Trust fees	20	22,570	24,417	20,862
Brokerage and insurance commissions	20	2,986	3,546	2,756
Securities (losses) gains, net (includes $(1,892), $5,910, and $7,592 of net security gains (losses) reclassified from accumulated other comprehensive income (loss) for the years ended December 31, 2022, 2021, and 2020, respectively)	3	(425)	5,910	7,793
Unrealized (loss) gain on equity securities, net	3	(622)	58	640
Net gains on sale of loans held for sale		9,032	20,605	28,515
Valuation adjustment on servicing rights	7	1,658	1,088	(1,778)
Income on bank owned life insurance		2,341	3,762	3,554
Other noninterest income		19,952	6,570	7,505
TOTAL NONINTEREST INCOME		**128,264**	**128,935**	**120,291**
NONINTEREST EXPENSES:				
Salaries and employee benefits	13, 15	254,478	240,114	202,668
Occupancy	22	28,155	29,965	26,554
Furniture and equipment	6	12,499	13,323	12,514
Professional fees		65,606	64,600	54,068
Advertising		6,221	7,257	5,235
Core deposit intangibles and customer relationship intangibles amortization	7	7,834	9,395	10,670
Other real estate and loan collection expenses		950	990	1,340
(Gain) loss on sales/valuations of assets, net		(1,047)	588	5,101
Acquisition, integration and restructuring costs		7,586	5,331	5,381
Partnership investment in tax credit projects		5,040	6,303	3,801
Other noninterest expenses		56,055	53,946	43,631
TOTAL NONINTEREST EXPENSES		**443,377**	**431,812**	**370,963**
INCOME BEFORE INCOME TAXES		**267,753**	**275,258**	**173,991**
Income taxes (includes $(355), $1,896, and $2,376 of income tax expense (benefit) reclassified from accumulated other comprehensive income (loss) for the years ended December 31, 2022, 2021, and 2020, respectively)	12	55,573	55,335	36,053
NET INCOME		**212,180**	**219,923**	**137,938**
Preferred dividends		(8,050)	(8,050)	(4,451)
NET INCOME AVAILABLE TO COMMON STOCKHOLDERS		**$ 204,130**	**$ 211,873**	**$ 133,487**
EARNINGS PER COMMON SHARE - BASIC	1	**$ 4.80**	**$ 5.01**	**$ 3.58**
EARNINGS PER COMMON SHARE - DILUTED	1	**$ 4.79**	**$ 5.00**	**$ 3.57**
CASH DIVIDENDS DECLARED PER COMMON SHARE		**$ 1.09**	**$ 0.96**	**$ 0.80**

See accompanying notes to consolidated financial statements.

HEARTLAND FINANCIAL USA, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Dollars in thousands)

	For the Years Ended December 31,		
	2022	**2021**	**2020**
NET INCOME	**$ 212,180**	**$ 219,923**	**$ 137,938**
OTHER COMPREHENSIVE INCOME (LOSS)			
Change in available for sale securities:			
Net change in unrealized gain (loss) on securities	(637,513)	(103,807)	109,972
Reclassification adjustment for net (gains) losses realized in net income	1,892	(5,910)	(7,592)
Income taxes	158,049	28,573	(26,578)
Other comprehensive income (loss) on available for sale securities	(477,572)	(81,144)	75,802
Change in securities held to maturity			
Adjustment for securities transferred from available for sale	(186,286)	—	—
Net amortization of unrealized losses on securities transferred from available for sale	3,842	—	—
Income taxes	45,174	—	—
Other comprehensive loss on held to maturity securities	(137,270)	—	—
Change in cash flow hedges			
Net change in unrealized gain (loss) on derivatives	500	5,037	(904)
Reclassification adjustment for net (gains) losses on derivatives realized in net income	246	(1,601)	(1,820)
Income taxes	(158)	(763)	567
Other comprehensive income (loss) on cash flow hedges	588	2,673	(2,157)
Other comprehensive income (loss)	(614,254)	(78,471)	73,645
TOTAL COMPREHENSIVE INCOME (LOSS)	**$ (402,074)**	**$ 141,452**	**$ 211,583**

See accompanying notes to consolidated financial statements.

HEARTLAND FINANCIAL USA, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(Dollars in thousands, except per share data)

	Heartland Financial USA, Inc. Stockholders' Equity					
	Preferred Stock	Common Stock	Capital Surplus	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Equity
Balance at January 1, 2020	**$ —**	**$ 36,704**	**$ 839,857**	**$ 702,502**	**$ (926)**	**$1,578,137**
Cumulative effect adjustment from the adoption of ASU 2016-13 on January 1, 2020				(14,891)		(14,891)
Adjusted balance on January 1, 2020	—	36,704	839,857	687,611	(926)	1,563,246
Comprehensive income (loss)				137,938	73,645	211,583
Cash dividends declared:						
Series C Preferred, 2.50 per share						—
Preferred $386.94 per share				(4,451)		(4,451)
Common, $0.80 per share				(29,468)		(29,468)
Issuance of 11,500 shares of Series E preferred stock	110,705					110,705
Issuance of 5,389,584 shares of common stock		5,390	214,816			220,206
Stock based compensation			7,410			7,410
Balance at December 31, 2020	**$ 110,705**	**$ 42,094**	**$1,062,083**	**$ 791,630**	**$ 72,719**	**$2,079,231**
Balance at January 1, 2021	**$ 110,705**	**$ 42,094**	**$1,062,083**	**$ 791,630**	**$ 72,719**	**$2,079,231**
Comprehensive income (loss)				219,923	(78,471)	141,452
Cash dividends declared:						
Series C Preferred, 2.50 per share						—
Preferred, $700.00 per share				(8,050)		(8,050)
Common, $0.96 per share				(40,509)		(40,509)
Issuance of 181,402 shares of common stock		181	1,130			1,311
Stock based compensation			8,743			8,743
Balance at December 31, 2021	**$ 110,705**	**$ 42,275**	**$1,071,956**	**$ 962,994**	**$ (5,752)**	**$2,182,178**
Balance at January 1, 2022	**$ 110,705**	**$ 42,275**	**$1,071,956**	**$ 962,994**	**$ (5,752)**	**$2,182,178**
Comprehensive income (loss)				212,180	(614,254)	(402,074)
Cash dividends declared:						
Preferred, $700.00 per share				(8,050)		(8,050)
Common, $1.09 per share				(46,199)		(46,199)
Issuance of 192,130 shares of common stock		192	846			1,038
Stock based compensation			8,162			8,162
Balance at December 31, 2022	**$ 110,705**	**$ 42,467**	**$1,080,964**	**$1,120,925**	**$ (620,006)**	**$1,735,055**

See accompanying notes to consolidated financial statements.

HEARTLAND FINANCIAL USA, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Dollars in thousands)

	For the Years Ended December 31,		
	2022	**2021**	**2020**
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 212,180	$ 219,923	$ 137,938
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	24,479	26,894	27,289
Provision (benefit) for credit losses	15,370	(17,575)	67,066
Net amortization of premium on securities	59,454	52,145	16,042
Provision for deferred taxes	(3,887)	11,543	(10,910)
Securities losses (gains), net	425	(5,910)	(7,793)
Unrealized loss (gain) on equity securities, net	622	(58)	(640)
Stock based compensation	8,162	8,743	7,410
Loss on sales/valuations of assets, net	1,998	2,222	5,101
Loans originated for sale	(284,324)	(466,071)	(621,507)
Proceeds on sales of loans held for sale	308,294	521,463	615,439
Net gains on sales of loans held for sale	(7,607)	(19,083)	(25,133)
Increase in accrued interest receivable	(17,530)	(1,590)	(9,971)
Increase in prepaid expenses	(1,580)	(1,102)	(3,504)
Increase (decrease) in accrued interest payable	3,737	(497)	(2,915)
Capitalization of servicing rights	(1,425)	(1,522)	(3,484)
Valuation adjustment on servicing rights	(1,658)	(1,088)	1,778
Net excess tax (expense) benefit from stock based compensation	131	312	(93)
Other, net	71,167	(2,712)	(1,745)
NET CASH PROVIDED BY OPERATING ACTIVITIES	**388,008**	**326,037**	**190,368**
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of time deposits in other financial institutions	—	(10)	—
Proceeds from the sale of securities available for sale	1,048,525	1,475,598	1,097,378
Proceeds from the sale of securities held to maturity	2,337	—	1,056
Proceeds from the sale, maturity of and principal paydowns on other investments	22,359	4,858	8,506
Proceeds from the maturity of and principal paydowns on securities available for sale	903,514	1,059,292	567,884
Proceeds from the maturity of and principal paydowns on securities held to maturity	6,082	5,659	3,458
Proceeds from the maturity of time deposits in other financial institutions	1,154	245	585
Purchase of securities available for sale	(2,226,881)	(4,094,661)	(4,119,814)
Purchase of other investments	(12,992)	(12,172)	(49,228)
Net (increase) decrease in loans	(1,506,338)	50,437	(444,146)
Purchase of bank owned life insurance policies	(283)	(288)	(292)
Proceeds from bank owned life insurance policies	966	—	606
Capital expenditures and investments	(14,804)	(17,203)	(18,542)
Net cash and cash equivalents received in acquisitions	—	—	641,315
Net cash expended in divestitures	(50,616)	(15,682)	—
Proceeds from sale of premises, furniture and equipment	10,872	10,489	5,895
Proceeds on sale of OREO and other repossessed assets	3,062	8,338	3,913
NET CASH USED BY INVESTING ACTIVITIES	**(1,813,043)**	**(1,525,100)**	**(2,301,426)**

HEARTLAND FINANCIAL USA, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS, CONTINUED
(Dollars in thousands)

	For the Years Ended December 31,		
	2022	**2021**	**2020**
CASH FLOWS FROM FINANCING ACTIVITIES:			
Net increase (decrease) in demand deposits	(206,366)	813,600	1,367,903
Net increase in savings accounts	566,033	893,569	735,968
Net increase (decrease) in time deposit accounts	799,938	(242,321)	(254,540)
Net increase (decrease) in short-term borrowings	194,520	(36,275)	40,137
Proceeds from short term FHLB advances	286,000	141,700	516,545
Repayments of short term FHLB advances	(236,000)	(141,700)	(597,742)
Proceeds from other borrowings	—	147,614	314,397
Repayments of other borrowings	(228)	(233,794)	(134,244)
Proceeds from issuance of preferred stock	—	—	110,705
Proceeds from issuance of common stock	2,875	2,925	3,004
Dividends paid	(54,249)	(48,559)	(31,906)
NET CASH PROVIDED BY FINANCING ACTIVITIES	**1,352,523**	**1,296,759**	**2,070,227**
Net increase (decrease) in cash and cash equivalents	(72,512)	97,696	(40,831)
Cash and cash equivalents at beginning of year	435,599	337,903	378,734
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**$ 363,087**	**$ 435,599**	**$ 337,903**
Supplemental disclosures:			
Cash paid for income/franchise taxes	$ 37,782	$ 49,914	$ 33,402
Cash paid for interest	72,683	28,703	47,798
Loans transferred to OREO	9,423	2,807	3,511
Transfer of premises from premises, furniture and equipment held for sale to premises, furniture and equipment, net	—	396	855
Transfer of premises from premises, furniture and equipment, net to premises, furniture and equipment held for sale	5,188	12,662	8,134
Securities transferred from available for sale to held to maturity	934,538	—	462
Dividends declared, not paid	2,013	2,013	2,013
Stock consideration granted for acquisitions	—	—	217,202

See accompanying notes to consolidated financial statements.

ONE
SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

***Nature of Operations* -** Heartland Financial USA, Inc. ("HTLF") is a bank holding company with locations in Iowa, Illinois, Wisconsin, New Mexico, Arizona, Colorado, Montana, Minnesota, Kansas, Missouri, Texas and California. The principal services of HTLF, which are provided through its subsidiaries, are FDIC-insured deposit accounts and related services, and loans to businesses and consumers. The loans consist primarily of commercial and industrial, owner-occupied commercial real estate, non-owner occupied commercial real estate, real estate construction, agricultural and agricultural real estate, residential real estate and consumer loans.

***Principles of Presentation* -** The consolidated financial statements include the accounts of HTLF and its subsidiaries: HTLF Bank; Dubuque Bank and Trust Company; Wisconsin Bank & Trust; New Mexico Bank & Trust; Rocky Mountain Bank; Bank of Blue Valley; First Bank & Trust; Citizens Finance Parent Co.; DB&T Insurance, Inc.; DB&T Community Development Corp.; Heartland Community Development, Inc.; Heartland Financial USA, Inc. Insurance Services; Citizens Finance Co.; Citizens Finance of Illinois Co.; Heartland Financial Statutory Trust IV; Heartland Financial Statutory Trust V; Heartland Financial Statutory Trust VI; Heartland Financial Statutory Trust VII; Morrill Statutory Trust I; Morrill Statutory Trust II; Sheboygan Statutory Trust I, CBNM Capital Trust I, Citywide Capital Trust III, Citywide Capital Trust IV, Citywide Capital Trust V, OCGI Statutory Trust III, OCGI Capital Trust IV, BVBC Capital Trust II, and BVBC Capital Trust III. All HTLF's subsidiaries are wholly-owned as of December 31, 2022.

The following charters were consolidated into HTLF Bank in 2022 and now operate as divisions of HTLF Bank:

- Illinois Bank & Trust
- Arizona Bank & Trust
- Citywide Banks
- Minnesota Bank & Trust
- Premier Valley Bank

The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and prevailing practices within the banking industry. In preparing such financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the balance sheets and revenues and expenses for the years then ended. Actual results could differ significantly from those estimates. A material estimate that is particularly susceptible to significant change relates to the determination of the allowance for credit losses.

***Business Combinations* -** HTLF applies the acquisition method of accounting in accordance with the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 805, *Business Combinations*. Under the acquisition method, HTLF recognizes assets acquired, including identified intangible assets, and the liabilities assumed in acquisitions at fair value as of the acquisition date, with the acquisition-related transaction costs expensed in the period incurred. Determining the fair value of assets acquired and liabilities assumed often involves estimates based on third-party valuations, such as appraisals, or internal valuations based on discounted cash flow analyses or other valuation techniques that may include estimates of attrition, inflation, asset growth rates, discount rates, multiples of earnings or other relevant factors. In addition, the determination of the useful lives over which an intangible asset will be amortized is subjective.

***Cash and Cash Equivalents* -** For purposes of reporting cash flows, cash and cash equivalents include cash on hand, amounts due from banks, interest bearing deposits held at the Federal Reserve Bank, federal funds sold to other banks and other short-term investments. Generally, federal funds are purchased and sold for one-day periods.

***Trading Securities* -** Trading securities represent those securities HTLF intends to actively trade and are stated at fair value with changes in fair value reflected in noninterest income. HTLF had no trading securities at both December 31, 2022 and 2021.

***Available for Sale ("AFS") Debt Securities and Equity Securities* -** Available for sale securities consist of those securities not classified as held to maturity or trading, which management intends to hold for indefinite periods of time or that may be sold in response to changes in interest rates, prepayments or other similar factors. Available for sale securities are stated at fair value with any unrealized gain or loss, net of applicable income tax, reported as a separate component of stockholders' equity.

Security premiums and discounts are amortized/accreted using the interest method over the period from the purchase date to the expected maturity or call date of the related security.

HTLF reviews the investment securities portfolio at the security level on a quarterly basis for potential credit losses, which takes into consideration numerous factors, and the relative significance of any single factor can vary by security. Some factors HTLF may consider include changes in security ratings, financial condition of the issuer, as well as security and industry specific economic conditions. In addition, with regard to debt securities, HTLF may also evaluate payment structure, whether there are defaulted payments or expected defaults, prepayment speeds and the value of any underlying collateral. For certain debt securities in unrealized loss positions, HTLF prepares cash flow analyses to compare the present value of cash flows expected to be collected from the security with the amortized cost basis of the security.

Realized securities gains or losses on securities sales (using specific identification method) are included in securities gains, net in the consolidated statements of income.

Equity securities include Community Reinvestment Act mutual funds with readily determinable fair values and are carried at fair value. Certain equity securities do not have readily determinable fair values, such as Federal Reserve Bank stock and Federal Home Loan Bank stock, which are held for debt and regulatory purposes and are carried at cost minus impairment, if any, plus or minus changes resulting from observable price changes for the identical or similar investment of the same issuer. HTLF has not recorded any impairment or other adjustments to the carrying amount of these investments during the years ended December 31, 2022, and December 31, 2021.

Allowance for Credit Losses on AFS Debt Securities - HTLF reviews the investment securities portfolio at the security level on a quarterly basis for potential credit losses, which takes into consideration numerous factors, and the relative significance of any single factor can vary by security. Some factors HTLF may consider include changes in security ratings, financial condition of the issuer, as well as security and industry specific economic conditions. In addition, with regard to debt securities, HTLF may also evaluate payment structure, whether there are defaulted payments or expected defaults, prepayment speeds and the value of any underlying collateral. For certain debt securities in unrealized loss positions, HTLF prepares cash flow analyses to compare the present value of cash flows expected to be collected from the security with the amortized cost basis of the security.

The decline in fair value of an AFS debt security due to credit loss results in recording an allowance for credit losses to the extent the fair value is less than the amortized cost basis. Declines in fair value that have not been recorded through an allowance for credit losses, such as declines due to changes in market interest rates, are recorded through other comprehensive income, net of applicable taxes. Although these evaluations involve judgment, an unrealized loss in the fair value of a debt security is generally considered to not be related to credit when the fair value of the security is below the carrying value primarily due to changes in risk-free interest rates, there has not been significant deterioration in the financial condition of the issuer, and HTLF does not intend to sell nor does it believe it will be required to sell the security before the recovery of its cost basis. HTLF had no allowance for credit losses on AFS debt securities recorded at December 31, 2022, and December 31, 2021.

Securities Held to Maturity - Securities which HTLF has the ability and positive intent to hold to maturity are classified as held to maturity. Such securities are stated at amortized cost, adjusted for premiums and discounts that are amortized/accreted using the interest method over the period from the purchase date to the expected maturity or call date of the related security.

Allowance for Credit Losses on Held to Maturity Debt Securities - HTLF measures expected credit losses on held to maturity debt securities on a collective basis based on security type. The estimate of expected credit losses considers historical credit information that is adjusted for current conditions and supportable forecasts. HTLF's held to maturity debt securities consist primarily of investment grade obligations of states and political subdivisions. The forecast and forecast period used in the calculation of the allowance for credit losses for loans is used in calculating the allowance for credit losses on held to maturity debt securities. HTLF had no allowance for credit losses on held to maturity debt securities recorded at both December 31, 2022, and December 31, 2021.

Loans Held to Maturity - Loans that management has the intent and ability to hold for the foreseeable future or until maturity or payoff are reported at amortized cost, which is the principal amount outstanding, net of cumulative charge-offs, unamortized net deferred loan origination fees and costs and unamortized premiums or discounts on purchased loans. HTLF has a loan policy which establishes the credit risk appetite, lending standards and underwriting criteria designed so that HTLF may extend credit in a prudent and sound manner. The HTLF board of directors reviews and approves the loan policy on a regular basis. A reporting system supplements the review process by providing management and the board with frequent reports related to loan production, loan quality, concentrations of credit, loan delinquencies and nonperforming loans and potential problem loans.

HTLF originates commercial and industrial loans and owner occupied commercial real estate loans for a wide variety of business purposes, including lines of credit for capital and operating purposes and term loans for real estate and equipment purchases. Non-owner occupied commercial real estate loans provide financing for various non-owner occupied or income producing properties. Real estate construction loans are generally short-term or interim loans that provide financing for acquiring or developing commercial income properties, multi-family projects or single-family residential homes. Agricultural and agricultural real estate loans provide financing for capital improvements and farm operations, as well as livestock and machinery purchases. Residential real estate loans are originated for the purchase or refinancing of single family residential properties. Consumer loans include loans for motor vehicles, home improvement, home equity and personal lines of credit.

Loans are considered past due if the required principal and interest payments have not been received as of the date such payments were due. HTLF's policy is to discontinue the accrual of interest income on any loan when, in the opinion of management, there is a reasonable doubt as to the timely collection of the interest and principal, normally when a loan is 90 days past due. When interest accruals are deemed uncollectible, interest credited to income in the current year is reversed and interest accrued in prior years is charged to the allowance for credit losses. A loan can be restored to accrual status if the borrower has resumed paying the full amount of the scheduled contractual interest and principal payments on the loan, and (1) all principal and interest amounts contractually due (including arrearages) are reasonably assured of repayment within a reasonable period of time, and (2) there is a sustained period of repayment performance (generally a minimum of six months) by the borrower in accordance with the scheduled contractual terms.

***Acquired Loans* -** HTLF has acquired loans through acquisitions, some of which have experienced more than insignificant deterioration in credit quality since origination and are classified as purchased with credit deterioration ("PCD") loans. HTLF considers the following criteria in determining PCD loans:

- watch, substandard and non-accrual loans;
- loans delinquent more than 30 days as of the acquisition date;
- loans that have experienced more than one 30-59 day delinquency;
- loans that have experienced any delinquency of more than 60 days;
- loan with a TDR status as of the acquisition date;
- loans with a Coronavirus Disease 2019 ("COVID-19") modification as of the acquisition date;
- loans in high-risk industries based on macroeconomic conditions and local market conditions of the acquired entity on acquisition date.

An allowance for credit losses on PCD loans is determined using the same allowance methodology as described below for loans held to maturity. The allowance for credit losses determined on a collective basis is allocated to individual loans. The sum of the PCD loan purchase price and allowance for credit loss becomes the initial amortized cost basis. The difference between the initial amortized cost basis and the par value of the loan is a noncredit discount or premium, which is amortized into interest income over the life of the loan. Any subsequent changes to the credit quality of PCD loans are recognized in net income by adjusting the allowance for credit losses through provision expense.

At acquisition, for purchased loans not defined as PCD loans ("non-PCD"), the purpose of the loan (e.g., business, agricultural or personal), the type of borrower (e.g., business or individual) and the type of collateral for the loan (e.g., commercial real estate, residential real estate, general business assets or unsecured) of each loan are considered in order to assign purchased loans into one of the following eight loan pools: commercial and industrial, Paycheck Protection Program ("PPP"), owner occupied commercial real estate, non-owner occupied commercial real estate, real estate construction, agricultural and agricultural real estate, residential real estate and consumer.

For non-PCD loans, the premium or discount, if any, representing the excess of the amount of reasonably estimable and probable discounted future cash collections over the purchase price, is accreted into interest income using the interest method over the weighted average remaining contractual life of the loan pool. Because HTLF uses the pool method as described above, no adjustment is made to the discount of an individual loan on the specific date of a credit event with respect to such loan. Additionally, the premium or discount accretion is suspended on loans that subsequently become nonperforming.

An allowance for credit losses for non-PCD loans is established through recognition of provision expense in net income using the same methodology as other loans held to maturity.

Allowance for Credit Losses for Loans - The allowance for credit losses is a valuation account that is deducted from the loans held to maturity amortized cost basis to present the net amount expected to be collected on the loans. Loans are charged-off against the allowance when management believes the loan balance is deemed to be uncollectible. Provisions for credit losses for loans and recoveries on loans previously charged-off by HTLF are added back to the allowance.

HTLF's allowance model is designed to consider the current contractual term of the loan, defined as starting as of the most recent renewal date and ending at maturity date.

Management's estimation of expected credit losses is based on relevant information about past events, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amounts, including expected defaults and prepayments. Historical loss experience is generally the starting point for estimating expected credit losses. Adjustments are made to historical loss experience to reflect differences in asset-specific risk characteristics, such as underwriting standards, portfolio mix or asset terms and differences in economic conditions, both current conditions and reasonable and supportable forecasts. If HTLF is not able to make or obtain reasonable and supportable forecasts for the entire life of the financial asset, it is required to estimate expected credit losses for the remaining life using an approach that reverts to historical credit loss information. The components of the allowance for credit losses are described more specifically below.

Quantitative Factors

The quantitative component of the allowance for credit losses is measured using historical loss experience using a look back period, currently over the most recent 14 years, on a pool basis for loans with similar risk characteristics. HTLF utilizes third-party software to calculate the expected credit losses using two separate methodologies. For certain commercial and agricultural loans, the expected credit losses are calculated through a transition matrix model derived probability of default and loss given default methodology. The transition matrix model determines the life of loan probability of default using the historical transitions of loans between risk ratings and through default. The probability of default and loss given default methodology has been developed using HTLF's historical loss experience over the look back period. For smaller commercial and agricultural loans, residential real estate loans and consumer loans, a lifetime average historical loss rate is established for each pool of loans based upon an average loss rate calculated using HTLF historical loss experience over the look back period.

The risks in the commercial and industrial loan portfolio include the unpredictability of the cash flow of the borrowers and the variability in the value of the collateral securing the loans. Owner occupied commercial real estate loans are dependent upon the cash flow of the borrowers and the collateral value of the real estate. Non-owner occupied commercial real estate loans are typically dependent, in large part, on sufficient income from the properties securing the loans to cover the operating expenses and debt service. Real estate construction loans involve additional risks because funds are advanced based upon estimates of costs and the estimated value of the completed project. Additionally, real estate construction loans have a greater risk of default in a weaker economy because the source of repayment is reliant on the successful and timely completion and sale of the project. Agricultural and agricultural real estate loans are dependent upon the profitable operation or management of the farm property securing the loan. Loans secured by farm equipment, livestock or crops may not provide an adequate source of repayment because of damage or depreciation. Residential real estate loans are dependent upon the borrower's ability to repay the loan and the underlying collateral value. Consumer loans are dependent upon the borrower's personal financial circumstances and continued financial stability.

If a loan no longer shares similar risk characteristics with other loans in the pool, it is evaluated on an individual basis and is not included in the collective evaluation. Lending relationships with $500,000 or more of total exposure and are on nonaccrual are individually assessed using a collateral dependency calculation. A loan is collateral-dependent when the debtor is experiencing financial difficulty and repayment is expected to be provided substantially through the sale or operation of the collateral. The impairment will be recognized by creating a specific reserve against the loan with a corresponding charge to provision expense. In most cases, the specific reserve will be charged off in the same quarter the loss is probable. In some cases, when HTLF believes certain loans do not share the same risk characteristics with other loans in the pool, the standard allows for these loans to be individually assessed. All individually assessed loan calculations are completed at least semi-annually.

Qualitative Factors

HTLF's allowance methodology also has a qualitative component, the purpose of which is to provide management with a means to take into consideration changes in current conditions that could potentially have an effect, up or down, on the level of recognized loan losses, that, for whatever reason, fail to show up in the quantitative analysis performed in determining its base loan loss rates.

HTLF utilizes the following qualitative factors:

- changes in lending policies and procedures
- changes in the nature of loans
- experience and ability of management

- changes in the credit quality of the loan portfolio
- risk in acquired portfolios
- concentrations of credit

The qualitative factors for changes in lending policies and procedures, management and acquired portfolios are weighted as one factor. The other qualitative factors noted above are equally weighted as individual factors.

The qualitative adjustments are based on the comparison of the current condition to the average condition over the look back period. The adjustment amount can be either positive or negative depending on whether or not the current condition is better or worse than the historical average. HTLF incorporates the adjustments for changes in current conditions using an overlay approach. The adjustments are applied as a percentage adjustment in addition to the calculated historical loss rates of each pool. These adjustments reflect the extent to which HTLF expects current conditions to differ from the conditions that existed for the period over which historical information was evaluated. HTLF utilizes an anchoring approach to determine the minimum and maximum amount of qualitative allowance for credit losses, which is determined by comparing the highest and lowest historical rate to the current quantitative allowance rate to calculate the rate for the adjustment.

Economic Forecasting

The allowance for credit losses estimate incorporates a reasonable and supportable forecast of various macro-economic indices over the remaining life of HTLF’s assets. HTLF utilizes an overlay approach for its economic forecasting component, similar to the method utilized for the qualitative factors. The length of the reasonable and supportable forecast period is a judgmental determination based on the level to which the entity can support its forecast of economic conditions that drive its estimate of expected loss. HTLF compares forecasted macro-economic indices, such as unemployment and gross domestic product, to the economic conditions that existed over HTLF's look back period.

HTLF uses Moody's baseline economic forecast scenario, which is updated quarterly in HTLF's methodology, and considers other Moody's forecast scenarios to support the economic forecast component of the allowance for credit losses. The economic forecast reverts to the historical mean immediately at the end of the reasonable and supportable forecast period. HTLF utilized a one-year reasonable and supportable forecast period for the calculation of the December 31, 2022, and December 31, 2021, allowance for credit losses.

It is expected that actual economic conditions will, in many circumstances, turn out differently than forecasted because the ultimate outcomes during the forecast period may be affected by events that were unforeseen, such as economic disruption and fiscal or monetary policy actions, which are exacerbated by longer forecasting periods. This uncertainty would be relevant to the entity’s confidence level as to the outcomes being forecasted. That is, an entity is likely less confident in the ultimate outcome of events that will occur at the end of the forecast period as compared to the beginning. As a result, actual future economic conditions may not be an effective indicator of the quality of management’s forecasting process, including the length of the forecast period.

***Troubled Debt Restructured Loans* -** Loans are considered troubled debt restructured loans ("TDR") if concessions have been granted to borrowers that are experiencing financial difficulty. The concessions granted generally involve the modification of terms of the loan, such as changes in payment schedule or interest rate, which generally would not otherwise be considered. TDRs can involve loans remaining on nonaccrual, moving to nonaccrual, or continuing on accrual status, depending on the individual facts and circumstances of the borrower. Nonaccrual TDRs are included and treated consistently with all other nonaccrual loans. Generally, TDRs remain on nonaccrual until the customer has attained a sustained period of repayment performance under the modified loan terms (generally a minimum of six months). However, performance prior to the restructuring, or significant events that coincide with the restructuring, are considered in assessing whether the borrower can meet the new terms and whether the loan should be returned to or maintained on accrual status. If the borrower’s ability to meet the revised payment schedule is not reasonably assured, the loan remains on nonaccrual status.

During 2020, TDR treatments were updated due to COVID-19 and the Coronavirus Aid, Relief and Economic Security Act (the "CARES Act") regulation. Under the CARES Act, banking institutions were not required to classify modifications as TDRs if the following three conditions are met: 1) the deferral was related to COVID-19, 2) executed on a loan that was not more than 30 days past due as of December 31, 2019, and 3) executed between March 1, 2020 and the later of December 31, 2020 or the last day of the Declaration of National Emergency. HTLF adopted the CARES Act rule for TDR classification and enhanced its procedures for deferral monitoring. The National Emergency Declaration was in effect during 2021, and therefore, HTLF followed the CARES Act rule for TDR classification during the year ended December 31, 2021. The provisions of the CARES Act expired on January 1, 2022, and any new troubled debt restructured loan modifications are evaluated in accordance with generally accepted accounting principles.

A loan that is a TDR that has an interest rate consistent with market rates at the time of restructuring and is in compliance with its modified terms in the calendar year after the year in which the restructuring took place is no longer considered a TDR. To be considered in compliance with its modified terms, a loan that is a TDR must be in accrual status and must be current or less than 30 days past due under the modified repayment terms. A loan that has been modified at a below market rate will remain classified as a TDR. If the borrower's financial conditions improve to the extent that the borrower qualifies for a new loan with market terms, the new loan will not be considered a TDR if HTLF's credit analysis shows the borrower's ability to perform under scheduled terms.

***Loans Held for Sale* -** Loans held for sale are stated at the lower of cost or fair value on an aggregate basis. Gains or losses on sales are recorded in noninterest income. Direct loan origination costs and fees are deferred at origination of the loan. These deferred costs and fees are recognized in noninterest income as part of the gain or loss on sales of loans upon sale of the loan.

At December 31, 2022 and 2021, loans held for sale primarily consisted of 1-4 family residential mortgages.

Allowance for Credit Losses on Unfunded Loan Commitments - HTLF estimates expected credit losses over the contractual term of the loan for the unfunded portion of the loan commitment that is not unconditionally cancellable by HTLF using the same collective allowance methodology for credit losses for loans described above. Management uses an estimated average utilization rate to determine the exposure at default. The allowance for unfunded commitments is recorded in the Accrued Expenses and Other Liabilities section of the consolidated balance sheets.

***Mortgage Servicing and Transfers of Financial Assets* -** HTLF regularly sells residential mortgage loans to others, primarily government sponsored entities, on a non-recourse basis. Sold loans are not included in the accompanying consolidated balance sheets. HTLF generally retains the right to service the sold loans for a fee. HTLF's First Bank and Trust subsidiary serviced mortgage loans primarily for government sponsored entities with aggregate unpaid principal balance of $725.9 million and $723.3 million, at December 31, 2022 and 2021, respectively.

***Premises, Furniture and Equipment, net* -** Premises, furniture and equipment are stated at cost less accumulated depreciation. The provision for depreciation of premises, furniture and equipment is determined by straight-line and accelerated methods over the estimated useful lives of 18 to 39 years for buildings, 15 years for land improvements and 3 to 7 years for furniture and equipment.

***Premises, Furniture and Equipment Held for Sale* -** Premises, furniture and equipment are stated at the estimated fair value less disposal costs. Subsequent write-downs and gains or losses on the sales are recorded to gain (loss) on sales/valuation of assets, net.

***Other Real Estate* -** Other real estate represents property acquired through foreclosures and settlements of loans. Property acquired is recorded at the estimated fair value of the property less disposal costs. The excess of carrying value over fair value less disposal costs is charged against the allowance for credit losses. Subsequent write downs estimated on the basis of later valuations and gains or losses on sales are charged to gain (loss) on sales/valuation of assets, net. Expenses incurred in maintaining such properties are charged to other real estate and loan collection expenses.

***Goodwill* -** Goodwill represents the excess of the purchase price of acquired subsidiaries' net assets over their fair value at the purchase date. HTLF assesses goodwill for impairment annually, and more frequently if events occur which may indicate possible impairment, and assesses goodwill at the reporting unit level, also giving consideration to overall enterprise value as part of that assessment.

In evaluating goodwill for impairment, HTLF first assesses qualitative factors to determine whether it is more likely than not (that is, a likelihood of more than 50%) that the fair value of a reporting unit is less than its carrying amount. If HTLF concludes that it is more likely than not that the fair value of a reporting unit is more than its carrying value, then no further testing of goodwill assigned to the reporting unit is required. However, if HTLF concludes that it is more likely than not that the fair value of a reporting unit is less than its carrying value, then HTLF performs a quantitative goodwill impairment test to identify potential goodwill impairment and measure the amount of goodwill impairment to recognize, if any. In addition, the income tax effects of tax deductible goodwill on the carrying amount of the reporting unit should be considered when measuring the goodwill impairment loss, if applicable. A goodwill impairment charge is recognized for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized cannot exceed the total amount of goodwill allocated to that reporting unit.

Core Deposit Intangibles and Customer Relationship Intangibles, Net - Core deposit intangibles are amortized over 8 to 18 years on an accelerated basis. Customer relationship intangibles were amortized over 22 years on an accelerated basis. Annually, HTLF reviews these intangible assets for events or circumstances that may indicate a change in the recoverability of the underlying basis.

Servicing Rights, Net - Mortgage and commercial servicing rights associated with loans originated and sold, where servicing is retained, are initially capitalized at fair value and recorded on the consolidated statements of income as a component of gains on sale of loans held for sale. The values of these capitalized servicing rights are amortized as an offset to the loan servicing income earned in relation to the servicing revenue expected to be earned.

The carrying values of these rights are reviewed quarterly for impairment based on the calculation of their fair value as performed by an outside third party. For purposes of measuring impairment, the rights are stratified into certain risk characteristics including loan type and loan term. As of December 31, 2022, no valuation allowance was required on HTLF's mortgage servicing rights with an original term of 15 years, and no valuation allowance was required on HTLF's mortgage servicing rights with an original term of 30 years. At December 31, 2021, a valuation allowance of $327,000 was required on HTLF's mortgage servicing rights with an original term of 15 years, and a valuation allowance of $1.3 million was required on HTLF's mortgage servicing rights with an original term of 30 years.

Cash Surrender Value on Life Insurance - HTLF and its subsidiaries have purchased life insurance policies on the lives of certain officers. The one-time premiums paid for the policies, which coincide with the initial cash surrender value, are recorded as an asset. Increases or decreases in the cash surrender value, other than proceeds from death benefits, are recorded as noninterest income in income on bank owned life insurance. Proceeds from death benefits first reduce the cash surrender value attributable to the individual policy and then any additional proceeds are recorded in other noninterest income.

Income Taxes - HTLF and its subsidiaries file a consolidated federal income tax return and separate or combined income or franchise tax returns as required by the various states. HTLF recognizes certain income and expenses in different time periods for financial reporting and income tax purposes. The provision for deferred income taxes is based on an asset and liability approach and represents the change in deferred income tax accounts during the year, including the effect of enacted tax rate changes. A valuation allowance is provided to reduce deferred tax assets if their expected realization is deemed not to be more likely than not.

A tax position is recognized as a benefit only if it is "more likely than not" that the tax position would be sustained in a tax examination. The amount recognized is the largest amount of tax benefit that is greater than 50% likely of being realized on examination. HTLF recognizes interest and penalties related to income tax matters in income tax expense.

Derivative Financial Instruments - HTLF uses derivative financial instruments as part of its interest rate risk management, which includes interest rate swaps, certain interest rate lock commitments and forward sales of securities related to mortgage banking activities. FASB ASC Topic 815 establishes accounting and reporting standards for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging activities. As required by ASC 815, HTLF records all derivatives on the consolidated balance sheets at fair value. The accounting for changes in the fair value of derivatives depends on the intended use of the derivative and the resulting designation. Derivatives used to hedge the exposure to variability in expected future cash flows, or other types of forecasted transactions, are considered cash flow hedges. To qualify for hedge accounting, HTLF must comply with the detailed rules and documentation requirements at the inception of the hedge, and hedge effectiveness is assessed at inception and periodically throughout the life of each hedging relationship. Hedge ineffectiveness, if any, is measured periodically throughout the life of the hedging relationship.

HTLF has cash flow hedges at December 31, 2022. For derivatives designated as cash flow hedges, the effective portion of changes in the fair value of the derivative is initially reported in other comprehensive income (loss) and subsequently reclassified to interest income or expense when the hedged transaction affects earnings, while the ineffective portion of changes in the fair value of the derivative, if any, is recognized immediately in other noninterest income. HTLF assesses the effectiveness of each hedging relationship by comparing the cumulative changes in cash flows of the derivative hedging instrument with the cumulative changes in cash flows of the designated hedged item or transaction. No component of the change in the fair value of the hedging instrument is excluded from the assessment of hedge effectiveness.

HTLF has fair value hedging relationships at December 31, 2022. HTLF uses hedge accounting in accordance with ASC 815, with the unrealized gains and losses, representing the change in fair value of the derivative and the change in fair value of the risk being hedged on the related loan, being recorded in the consolidated statements of income. The ineffective portions of the unrealized gains or losses, if any, are recorded in interest income and interest expense in the consolidated statements of income. HTLF uses statistical regression to assess hedge effectiveness, both at the inception of the hedge as well as on a continual basis.

The regression analysis involves regressing the periodic change in fair value of the hedging instrument against the periodic changes in the fair value of the asset being hedged due to changes in the hedge risk.

HTLF does not use derivatives for trading or speculative purposes. Derivatives not designated as hedges are not speculative and are used to manage HTLF's exposure to interest rate movements and other identified risks, but do not meet the strict hedge accounting requirements of ASC 815.

Mortgage Derivatives - HTLF uses interest rate lock commitments to originate residential mortgage loans held for sale and forward commitments to sell residential mortgage loans and mortgage backed securities. These commitments are considered derivative instruments. The fair value of these commitments is recorded on the consolidated balance sheets with the changes in fair value recorded in the consolidated statements of income as a component of gains on sale of loans held for sale. These derivative contracts are designated as free standing derivative contracts and are not designated against specific assets and liabilities on the consolidated balance sheets or forecasted transactions and therefore do not qualify for hedge accounting treatment.

Fair Value Measurements - Fair value represents the estimated price at which an orderly transaction to sell an asset or transfer a liability would take place between market participants at the measurement date under current market conditions (i.e., an exit price concept). Fair value measurement is based upon quoted prices, if available. If quoted prices are not available, fair values are measured using discounted cash flow or other valuation techniques. Inputs into the valuation methods are subjective in nature, involve uncertainties, and require judgment and therefore cannot be determined with precision. Accordingly, the derived fair value estimates presented herein are not necessarily indicative of the amounts HTLF could realize in a current market exchange. Assets and liabilities are categorized into three levels based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine the fair value. In instances where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy in which the entire fair value measurement falls is based on the lowest level input that is significant to the fair value measurement in its entirety. HTLF's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the asset or liability. Below is a brief description of each fair value level:

> *Level 1* — Valuation is based upon quoted prices for identical instruments in active markets.
>
> *Level 2* — Valuation is based upon quoted prices for similar instruments in active markets, or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market.
>
> *Level 3* — Valuation is generated from model-based techniques that use at least one significant assumption not observable in the market. These unobservable assumptions reflect estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques.

Segment Reporting - Operating segments are defined as components of an enterprise for which separate financial information is evaluated regularly by the chief operating decision maker ("CODM"), which is the Chief Executive Officer of HTLF, in deciding how to allocate resources and assess the financial and operating performance of HTLF. HTLF's operating segments provide, and primarily derive revenue, through full service commercial and consumer banking. HTLF has determined that the economic characteristics, operating models, performance metrics, suite of products and services, customer base, and regulatory requirements are similar for its operating segments and has therefore aggregated them into one reportable segment.

Treasury Stock - Treasury stock is accounted for by the cost method, whereby shares of common stock reacquired are recorded at their purchase price. When treasury stock is reissued, any difference between the sales proceeds, or fair value when issued for business combinations, and the cost is recognized as a charge or credit to capital surplus. HTLF had no treasury stock at December 31, 2022 and December 31, 2021.

Trust Department Assets - Property held for customers in fiduciary or agency capacities is not included in the accompanying consolidated balance sheets because such items are not assets of the HTLF Banks.

Earnings Per Share - Basic earnings per share is determined using net income available to common stockholders and weighted average common shares outstanding. Diluted earnings per share is computed by dividing net income available to common stockholders by the weighted average common shares and assumed incremental common shares issued. Amounts used in the determination of basic and diluted earnings per share for the years ended December 31, 2022, 2021 and 2020, are shown in the table below, dollars and number of shares in thousands, except per share data:

	2022	2021	2020
Net income attributable to HTLF	$212,180	$219,923	$137,938
Preferred dividends	(8,050)	(8,050)	(4,451)
Net income available to common stockholders	$204,130	$211,873	$133,487
Weighted average common shares outstanding for basic earnings per share	42,496	42,260	37,269
Assumed incremental common shares issued upon vesting of restricted stock units	135	151	88
Weighted average common shares for diluted earnings per share	42,631	42,411	37,357
Earnings per common share — basic	$ 4.80	$ 5.01	$ 3.58
Earnings per common share — diluted	$ 4.79	$ 5.00	$ 3.57
Number of antidilutive stock units excluded from diluted earnings per share computation	5	1	—
Number of antidilutive stock options excluded from diluted earnings per share computation	5	—	—

Subsequent Events - HTLF has evaluated subsequent events that may require recognition or disclosure through the filing date of this Annual Report on Form 10-K with the SEC.

Effect of New Financial Accounting Standards

ASU 2018-16

In October 2018, the FASB issued ASU 2018-16, "*Derivatives and Hedging (Topic 815): Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting."* In the United States, eligible benchmark interest rates under Topic 815 are interest rates on direct Treasury obligations of the U.S. government, the London Interbank Offered Rate ("LIBOR") swap rate, and the Overnight Index Swap ("OIS") Rate based on the Fed Funds Effective Rate. When the FASB issued ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*, in August 2017, it introduced the Securities Industry and Financial Markets Association ("SIFMA") Municipal Swap Rate as the fourth permissible U.S. benchmark rate. ASU 2018-16 adds the OIS rate based on the Secured Overnight Financing Rate ("SOFR") as a U.S. benchmark interest rate to facilitate the LIBOR to SOFR transition and provide sufficient lead time for entities to prepare for changes to interest rate risk hedging strategies for both risk management and hedge accounting purposes. ASU 2018-16 became effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years and the financial statement impact immediately upon adoption was immaterial. The future financial statement impact will depend on any new contracts entered into using new benchmark rates, as well as any existing contracts that are migrated from LIBOR to new benchmark interest rates. HTLF has a formal working group responsible for the planning, assessment and execution of the transition from LIBOR to SOFR. HTLF ceased using LIBOR as a reference rate for new contracts effective December 31, 2021. Currently, HTLF has identified borrowings, adjustable-rate loans, and derivative instruments which reference LIBOR-based tenors maturing beyond the LIBOR replacement date.

ASU 2020-04

In March 2020, the FASB issued ASU 2020-04, "*Reference Rate Reform,*" which provides optional expedients and exceptions for applying GAAP to loan and lease agreements, derivative contracts, and other transactions affected by the anticipated transition away from LIBOR toward new interest rate benchmarks. For loan and lease agreements that are modified because of reference rate reform and that meet certain scope guidance (i) modifications of loan agreements should be accounted for by prospectively adjusting the effective interest rate, and the modifications would be considered "minor" with the result that any existing unamortized origination fees/costs would carry forward and continue to be amortized and (ii) modifications of lease agreements should be accounted for as a continuation of the existing agreement, with no reassessments of the lease classification and the discount rate or remeasurements of lease payments that otherwise would be required for modifications not accounted for as separate contracts. ASU 2020-04 also provides numerous optional expedients for derivative accounting. ASU 2020-04 is effective March 12, 2020, through December 31, 2022. An entity may elect to apply ASU 2020-04 for contract modifications as of January 1, 2020, or prospectively from a date within an interim period that includes or is subsequent to March 12, 2020, up to the date that the financial statements are available to be issued. Once elected for a Topic or an Industry Subtopic within the ASC, ASU 2020-04 must be applied prospectively for all eligible contract modifications for that Topic or

Industry Subtopic. ASU 2020-04 simplified any modifications executed between the selected start date and December 31, 2022 that were directly related to LIBOR transition by allowing prospective recognition of the continuation of the contract, rather than extinguishment of the old contract that would result in writing off unamortized fees/costs.

ASU 2022-02

In March 2022, the FASB issued ASU 2022-02, "*Financial Instruments-Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures."* These amendments eliminate the troubled debt restructurings ("TDR") recognition and measurement guidance and, instead, require that an entity evaluate (consistent with the accounting for other loan modifications) whether the modification represents a new loan or a continuation of an existing loan. The amendments also enhance existing disclosure requirements and introduce new requirements related to certain modifications of receivables made to borrowers experiencing financial difficulty. Additionally, these amendments require that an entity disclose current-period gross charge-offs by year of origination for loans receivable within the scope of Subtopic 326-20. The guidance is effective for entities that have adopted ASU 2016-13 for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. These amendments should be applied prospectively. If an entity elects to early adopt ASU 2022-02 in an interim period, the guidance should be applied as of the beginning of the fiscal year that includes the interim period. An entity may elect to early adopt the amendments about TDRs and related disclosure enhancements separately from the amendments related to vintage disclosures. HTLF adopted this ASU on January 1, 2023, as required, and the adoption did not have a material impact on its results of operations, financial position or liquidity.

TWO
CASH AND DUE FROM BANKS

The HTLF Banks are required to maintain certain average cash reserve balances as a non-member bank of the Federal Reserve System. On March 15, 2020, the Federal Reserve temporarily suspended the reserve requirement due to the COVID-19 pandemic, and as a result, there was no reserve requirement at both December 31, 2022, and December 31, 2021.

THREE
SECURITIES

The amortized cost, gross unrealized gains and losses and estimated fair values of debt securities available for sale and equity securities with a readily determinable fair value as of December 31, 2022, and December 31, 2021, are summarized in the table below, in thousands:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
December 31, 2022				
U.S. treasuries	$ 32,369	$ 8	$ (678)	$ 31,699
U.S. agencies	49,437	—	(6,302)	43,135
Obligations of states and political subdivisions	1,049,578	14	(170,155)	879,437
Mortgage-backed securities - agency	2,042,092	56	(270,043)	1,772,105
Mortgage-backed securities - non-agency	2,327,308	1,417	(146,849)	2,181,876
Commercial mortgage-backed securities - agency	100,518	—	(15,395)	85,123
Commercial mortgage-backed securities - non-agency	679,511	—	(20,052)	659,459
Asset-backed securities	428,397	—	(12,343)	416,054
Corporate bonds	59,205	—	(1,263)	57,942
Total debt securities	6,768,415	1,495	(643,080)	6,126,830
Equity securities with a readily determinable fair value	20,314	—	—	20,314
Total	$ 6,788,729	$ 1,495	$ (643,080)	$ 6,147,144
December 31, 2021				
U.S. treasuries	$ 997	$ 11	$ —	$ 1,008
U.S. agencies	193,932	264	(812)	193,384
Obligations of states and political subdivisions	2,045,386	56,263	(16,616)	2,085,033
Mortgage-backed securities - agency	2,388,601	11,870	(51,182)	2,349,289
Mortgage-backed securities - non-agency	1,749,838	4,570	(11,029)	1,743,379
Commercial mortgage-backed securities - agency	125,397	1,429	(2,914)	123,912
Commercial mortgage-backed securities - non-agency	600,253	998	(363)	600,888
Asset-backed securities	408,167	2,803	(1,317)	409,653
Corporate bonds	2,979	61	—	3,040
Total debt securities	7,515,550	78,269	(84,233)	7,509,586
Equity securities	20,788	—	—	20,788
Total	$ 7,536,338	$ 78,269	$ (84,233)	$ 7,530,374

The amortized cost, gross unrealized gains and losses and estimated fair values of held to maturity securities as of December 31, 2022, and December 31, 2021, are summarized in the table below, in thousands:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Allowance for Credit Losses
December 31, 2022					
Obligations of states and political subdivisions	$ 829,403	$ 3,096	$ (55,942)	$ 776,557	$ —
Total	$ 829,403	$ 3,096	$ (55,942)	$ 776,557	$ —
December 31, 2021					
Obligations of states and political subdivisions	$ 84,709	$ 9,430	$ —	$ 94,139	$ —
Total	$ 84,709	$ 9,430	$ —	$ 94,139	$ —

During the third quarter of 2022, HTLF transferred taxable municipal bonds with an amortized cost basis of $934.5 million and fair value of $748.3 million from available for sale to held to maturity. On the date of the transfer, accumulated other comprehensive income (loss) included $186.3 million of net unrealized losses, after tax, attributable to these securities, and the net unrealized losses will be amortized into interest income over the remaining life of the transferred securities. The bonds were transferred at fair value at the date of transfer.

As of December 31, 2022, HTLF had $33.0 million compared to $29.4 million at December 31, 2021, of accrued interest receivable, which is included in other assets on the consolidated balance sheets. HTLF does not consider accrued interest receivable in the carrying amount of financial assets held at amortized cost basis or in the allowance for credit losses calculation.

The amortized cost and estimated fair value of investment securities carried at fair value at December 31, 2022, by contractual maturity are as follows, in thousands. Expected maturities will differ from contractual maturities because issuers may have the right to call or prepay obligations with or without penalties.

	December 31, 2022	
	Amortized Cost	**Estimated Fair Value**
Due in 1 year or less	$ 490	$ 488
Due in 1 to 5 years	87,069	85,861
Due in 5 to 10 years	53,649	45,795
Due after 10 years	1,049,381	880,069
Total debt securities	1,190,589	1,012,213
Mortgage and asset-backed securities	5,577,826	5,114,617
Equity securities with a readily determinable fair value	20,314	20,314
Total investment securities	$ 6,788,729	$ 6,147,144

The amortized cost and estimated fair value of debt securities held to maturity at December 31, 2022, by contractual maturity are as follows, in thousands. Expected maturities will differ from contractual maturities because issuers may have the right to call or prepay obligations with or without penalties.

	December 31, 2022	
	Amortized Cost	**Estimated Fair Value**
Due in 1 year or less	$ 1,233	$ 1,236
Due in 1 to 5 years	70,253	69,799
Due in 5 to 10 years	129,072	126,177
Due after 10 years	628,845	579,345
Total investment securities	$ 829,403	$ 776,557

As of December 31, 2022, securities with a carrying value of $1.49 billion compared to $1.66 billion at December 31, 2021, were pledged to secure public and trust deposits, short-term borrowings and for other purposes as required and permitted by law.

Gross gains and losses realized related to sales of securities carried at fair value for the years ended December 31, 2022, 2021 and 2020 are summarized as follows, in thousands:

	For the Years Ended December 31,		
	2022	**2021**	**2020**
Proceeds from sales	$ 1,048,525	$ 1,475,598	$ 1,097,378
Gross security gains	7,299	11,892	13,208
Gross security losses	9,191	5,982	5,616

The following tables summarize, in thousands, the amount of unrealized losses, defined as the amount by which cost or amortized cost exceeds fair value, and the related fair value of investments with unrealized losses in HTLF's securities portfolio as of December 31, 2022, and December 31, 2021. The investments were segregated into two categories: those that have been in a continuous unrealized loss position for less than 12 months and those that have been in a continuous unrealized loss position for 12 or more months. The reference point for determining how long an investment was in an unrealized loss position was December 31, 2022, and December 31, 2021, respectively. For securities transferred to held to maturity during the third quarter of 2022, the reference point was the date of transfer.

Debt securities available for sale	**Less than 12 months**			**12 months or longer**			**Total**		
	Fair Value	**Unrealized Losses**	**Count**	**Fair Value**	**Unrealized Losses**	**Count**	**Fair Value**	**Unrealized Losses**	**Count**
December 31, 2022									
U.S. treasuries	$ 28,699	$ (678)	4	$ —	$ —	—	$ 28,699	$ (678)	4
U.S. agencies	$ 16,487	$ (222)	5	$ 26,648	$ (6,080)	2	$ 43,135	$ (6,302)	7
Obligations of states and political subdivisions	288,457	(28,378)	69	589,641	(141,777)	113	878,098	(170,155)	182
Mortgage-backed securities - agency	241,288	(21,420)	99	1,528,951	(248,623)	126	1,770,239	(270,043)	225
Mortgage-backed securities - non-agency	950,054	(70,213)	25	693,531	(76,636)	25	1,643,585	(146,849)	50
Commercial mortgage-backed securities - agency	27,732	(2,291)	12	57,392	(13,104)	7	85,124	(15,395)	19
Commercial mortgage-backed securities - non-agency	530,541	(16,830)	15	84,619	(3,222)	4	615,160	(20,052)	19
Asset-backed securities	118,613	(6,107)	7	56,621	(6,236)	6	175,234	(12,343)	13
Corporate bonds	57,544	(1,257)	7	398	(6)	1	57,942	(1,263)	8
Total temporarily impaired securities	$2,259,415	$ (147,396)	243	$3,037,801	$ (495,684)	284	$5,297,216	$ (643,080)	527
December 31, 2021									
U.S. agencies	$ 100,839	$ (812)	2	$ —	$ —	—	$ 100,839	$ (812)	2
Obligations of states and political subdivisions	596,866	(10,115)	113	236,329	(6,501)	49	833,195	(16,616)	162
Mortgage-backed securities - agency	1,383,808	(33,291)	83	474,724	(17,891)	19	1,858,532	(51,182)	102
Mortgage-backed securities - non-agency	929,515	(10,870)	27	23,821	(159)	5	953,336	(11,029)	32
Commercial mortgage-backed securities - agency	26,999	(689)	8	53,025	(2,225)	5	80,024	(2,914)	13
Commercial mortgage-backed securities - non-agency	74,450	(145)	3	14,124	(218)	2	88,574	(363)	5
Asset-backed securities	113,945	(1,201)	6	13,799	(116)	6	127,744	(1,317)	12
Total temporarily impaired securities	$3,226,422	$ (57,123)	242	$ 815,822	$ (27,110)	86	$4,042,244	$ (84,233)	328

Securities held to maturity	**Less than 12 months**			**12 months or longer**			**Total**		
	Fair Value	**Unrealized Losses**	**Count**	**Fair Value**	**Unrealized Losses**	**Count**	**Fair Value**	**Unrealized Losses**	**Count**
December 31, 2022									
Obligations of states and political subdivisions	$ 697,424	$ (55,942)	155	$ —	$ —	—	$ 697,424	$ (55,942)	155
Total temporarily impaired securities	$ 697,424	$ (55,942)	155	$ —	$ —		$ 697,424	$ (55,942)	155

HTLF had no securities held to maturity with unrealized losses at December 31, 2021.

HTLF reviews the investment securities portfolio at the security level on a quarterly basis for potential credit losses, which takes into consideration numerous factors, and the relative significance of any single factor can vary by security. Some factors

HTLF may consider include changes in security ratings, financial condition of the issuer, as well as security and industry specific economic conditions. In addition, with regard to debt securities, HTLF may also evaluate payment structure, whether there are defaulted payments or expected defaults, prepayment speeds and the value of any underlying collateral. For certain debt securities in unrealized loss positions, HTLF prepares cash flow analyses to compare the present value of cash flows expected to be collected from the security with the amortized cost basis of the security.

The unrealized losses on HTLF's mortgage and asset-backed securities are the result of changes in market interest rates or widening of market spreads subsequent to the initial purchase of the securities. The losses are not related to concerns regarding the underlying credit of the issuers or the underlying collateral. It is expected that the securities will not be settled at a price less than the amortized cost of the investment. Because the decline in fair value is attributable to changes in interest rates or widening market spreads and not credit quality, and because HTLF has the intent and ability to hold these investments until a market price recovery or to maturity and does not believe it will be required to sell the securities before maturity, no credit losses were recognized on these securities during the years ended December 31, 2022 and December 31, 2021.

The unrealized losses on HTLF's obligations of states and political subdivisions are the result of changes in market interest rates or widening of market spreads subsequent to the initial purchase of the securities. Management monitors the published credit ratings of these securities and the stability of the underlying municipalities. Because the decline in fair value is attributable to changes in interest rates or widening market spreads due to insurance company downgrades and not underlying credit quality, and because HTLF has the intent and ability to hold these investments until a market price recovery or to maturity and does not believe it will be required to sell the securities before maturity, no credit losses were recognized on these securities during the years ended December 31, 2022 and December 31, 2021.

In the first quarter of 2022, HTLF sold two obligations of states and political subdivisions securities from the held to maturity portfolio. Because the evaluation of the underlying credit quality of the individual securities indicated significant deterioration, it was unlikely HTLF would recover the remaining basis of the securities prior to maturity and therefore inconsistent with HTLF's original intent upon purchase and classification of these held to maturity securities. The carrying value of these securities was $2.2 million, and the associated gross gains were $100,000.

The following table summarizes, in thousands, the carrying amount of HTLF's held to maturity debt securities by investment rating as of December 31, 2022 and December 31, 2021, which are updated quarterly and used to monitor the credit quality of the securities:

	December 31, 2022	December 31, 2021
Rating		
AAA	$ 79,598	$ 3,265
AA, AA+, AA-	588,354	61,471
A+, A, A-	136,624	15,034
BBB	20,623	4,939
Not Rated	4,204	—
Total	$ 829,403	$ 84,709

Included in other securities were shares of stock in each Federal Home Loan Bank (the "FHLB") of Des Moines, Chicago, Dallas and Topeka at an amortized cost of $12.3 million at December 31, 2022 and $22.6 million at December 31, 2021.

The HTLF Banks are required to maintain FHLB stock as members of the various FHLBs as required by these institutions. These equity securities are "restricted" in that they can only be sold back to the respective institutions or another member institution at par. Therefore, they are less liquid than other marketable equity securities and their fair value approximates amortized cost. HTLF considers its FHLB stock as a long-term investment that provides access to competitive products and liquidity. HTLF evaluates impairment in these investments based on the ultimate recoverability of the par value and at December 31, 2022, did not consider the investments to be other than temporarily impaired.

FOUR
LOANS

Loans as of December 31, 2022, and December 31, 2021, were as follows, in thousands:

	December 31, 2022	December 31, 2021
Loans receivable held to maturity:		
Commercial and industrial	$ 3,464,414	$ 2,645,085
Paycheck Protection Program ("PPP")	11,025	199,883
Owner occupied commercial real estate	2,265,307	2,240,334
Non-owner occupied commercial real estate	2,330,940	2,010,591
Real estate construction	1,076,082	856,119
Agricultural and agricultural real estate	920,510	753,753
Residential real estate	853,361	829,283
Consumer	506,713	419,524
Total loans receivable held to maturity	11,428,352	9,954,572
Allowance for credit losses	(109,483)	(110,088)
Loans receivable, net	$ 11,318,869	$ 9,844,484

As of December 31, 2022, HTLF had $49.1 million compared to $35.3 million as of December 31, 2021, of accrued interest receivable, which is included in other assets on the consolidated balance sheets. HTLF does not consider accrued interest receivable in the allowance for credit losses calculation.

The following table shows the balance in the allowance for credit losses at December 31, 2022, and December 31, 2021, and the related loan balances, disaggregated on the basis of measurement methodology, in thousands. If a loan no longer shares similar risk characteristics with other loans in the pool, it is evaluated on an individual basis and is not included in the collective evaluation. Lending relationships with $500,000 or more of total exposure and are on nonaccrual are individually assessed using a collateral dependency calculation. All other loans are collectively evaluated for losses.

	Allowance For Credit Losses			Gross Loans Receivable Held to Maturity		
	Individually Evaluated for Credit Losses	Collectively Evaluated for Credit Losses	Total	Loans Individually Evaluated for Credit Losses	Loans Collectively Evaluated for Credit Losses	Total
December 31, 2022						
Commercial and industrial	$ 6,670	$ 22,401	$ 29,071	$ 18,712	$ 3,445,702	$ 3,464,414
PPP	—	—	—	—	11,025	11,025
Owner occupied commercial real estate	376	13,572	13,948	7,932	2,257,375	2,265,307
Non-owner occupied commercial real estate	—	16,539	16,539	11,371	2,319,569	2,330,940
Real estate construction	—	29,998	29,998	1,518	1,074,564	1,076,082
Agricultural and agricultural real estate	63	2,571	2,634	3,851	916,659	920,510
Residential real estate	—	7,711	7,711	1,607	851,754	853,361
Consumer	—	9,582	9,582	—	506,713	506,713
Total	$ 7,109	$ 102,374	$ 109,483	$ 44,991	$ 11,383,361	$11,428,352

	Allowance For Credit Losses			Gross Loans Receivable Held to Maturity		
	Individually Evaluated for Credit Losses	Collectively Evaluated for Credit Losses	Total	Loans Individually Evaluated for Credit Losses	Loans Collectively Evaluated for Credit Losses	Total
December 31, 2021						
Commercial and industrial	$ 4,562	$ 23,176	$ 27,738	$ 13,551	$ 2,631,534	$ 2,645,085
PPP	—	—	—	—	199,883	199,883
Owner occupied commercial real estate	105	19,109	19,214	8,552	2,231,782	2,240,334
Non-owner occupied commercial real estate	610	17,298	17,908	12,557	1,998,034	2,010,591
Real estate construction	—	22,538	22,538	—	856,119	856,119
Agricultural and agricultural real estate	2,369	2,844	5,213	13,773	739,980	753,753
Residential real estate	—	8,427	8,427	855	828,428	829,283
Consumer	—	9,050	9,050	—	419,524	419,524
Total	$ 7,646	$ 102,442	$ 110,088	$ 49,288	$ 9,905,284	$ 9,954,572

HTLF had $15.7 million of troubled debt restructured loans at December 31, 2022, of which $7.4 million were classified as nonaccrual and $8.3 million were accruing according to the restructured terms. HTLF had $10.4 million of troubled debt restructured loans at December 31, 2021, of which $9.5 million were classified as nonaccrual and $817,000 were accruing according to the restructured terms.

The following table provides information on troubled debt restructured loans that were modified during the years ended December 31, 2022, and December 31, 2021, in thousands. The provisions of the CARES Act, which modified troubled debt restructured loan classification, expired on January 1, 2022, and any new troubled debt restructured loan modifications are evaluated in accordance with generally accepted accounting principles.

	For the Years Ended					
	December 31, 2022			December 31, 2021		
	Number of Loans	Pre-Modification Recorded Investment	Post-Modification Recorded Investment	Number of Loans	Pre-Modification Recorded Investment	Post-Modification Recorded Investment
Commercial and industrial	—	$ —	$ —	—	$ —	$ —
PPP	—	—	—	—	—	—
Owner occupied commercial real estate	1	5,058	5,058	—	—	—
Non-owner occupied commercial real estate	—	—	—	2	7,580	7,580
Real estate construction	—	—	—	—	—	—
Agricultural and agricultural real estate	1	1,400	1,400	—	—	—
Residential real estate	—	—	—	—	—	—
Consumer	—	—	—	—	—	—
Total	2	$ 6,458	$ 6,458	2	$ 7,580	$ 7,580

The pre-modification and post-modification recorded investment represents amounts as of the date of loan modification. At December 31, 2022, there were no commitments to extend credit to any of the borrowers with an existing TDR.

There were no troubled debt restructured loans for which there was a payment default during the years ended December 31, 2022, and December 31, 2021, that had been modified during the 12-month period prior to the default.

HTLF's internal rating system is a series of grades reflecting management's risk assessment, based on its analysis of the borrower's financial condition. The "pass" category consists of all loans that are not in the "nonpass" category and categorized into a range of loan grades that reflect increasing, though still acceptable, risk. Movement of risk through the various grade levels in the pass category is monitored for early identification of credit deterioration.

The "nonpass" category consists of watch, substandard, doubtful and loss loans. The "watch" rating is attached to loans where the borrower exhibits negative trends in financial circumstances due to borrower specific or systemic conditions that, if left uncorrected, threaten the borrower's capacity to meet its debt obligations. The borrower is believed to have sufficient financial flexibility to react to and resolve its negative financial situation. These credits are closely monitored for improvement or deterioration.

The "substandard" rating is assigned to loans that are inadequately protected by the current net worth and repaying capacity of the borrower and that may be further at risk due to deterioration in the value of collateral pledged. Well-defined weaknesses jeopardize liquidation of the debt. These loans are still considered collectible; however, a distinct possibility exists that HTLF will sustain some loss if deficiencies are not corrected. Substandard loans may exhibit some or all the following weaknesses: deteriorating financial trends, lack of earnings, inadequate debt service capacity, excessive debt and/or lack of liquidity.

The "doubtful" rating is assigned to loans where identified weaknesses in the borrowers' ability to repay the loan make collection or liquidation in full, on the basis of existing facts, conditions and values, highly questionable and improbable. These borrowers are usually in default, lack liquidity and capital, as well as resources necessary to remain as an operating entity. Specific pending events, such as capital injections, liquidations or perfection of liens on additional collateral, may strengthen the credit, thus deferring the rating of the loan as "loss" until the exact status of the loan can be determined. The loss rating is assigned to loans considered uncollectible. As of December 31, 2022, and December 31, 2021, HTLF had no loans classified as doubtful and no loans classified as loss.

The following tables show the risk category of loans by loan category and year of origination as of December 31, 2022 and December 31, 2021, in thousands:

As of December 31, 2022	**Amortized Cost Basis of Term Loans by Year of Origination**							
	2022	**2021**	**2020**	**2019**	**2018**	**2017 and Prior**	**Revolving**	**Total**
Commercial and industrial								
Pass	$ 967,103	$ 442,001	$ 260,021	$ 101,998	$ 57,776	$ 421,312	$ 1,064,333	$ 3,314,544
Watch	12,638	1,370	685	5,487	2,882	3,315	21,984	48,361
Substandard	6,691	14,366	9,369	22,171	5,546	6,758	36,608	101,509
Commercial and industrial total	$ 986,432	$ 457,737	$ 270,075	$ 129,656	$ 66,204	$ 431,385	$ 1,122,925	$ 3,464,414
PPP								
Pass	$ —	$ 7,807	$ 526	$ —	$ —	$ —	$ —	$ 8,333
Watch	—	7	—	—	—	—	—	7
Substandard	—	2,685	—	—	—	—	—	2,685
PPP total	$ —	$ 10,499	$ 526	$ —	$ —	$ —	$ —	$ 11,025
Owner occupied commercial real estate								
Pass	$ 511,547	$ 781,946	$ 255,476	$ 266,228	$ 103,943	$ 179,503	$ 34,117	$ 2,132,760
Watch	22,079	3,410	12,346	8,520	3,645	11,899	—	61,899
Substandard	2,971	23,802	26,490	6,358	2,574	7,353	1,100	70,648
Owner occupied commercial real estate total	$ 536,597	$ 809,158	$ 294,312	$ 281,106	$ 110,162	$ 198,755	$ 35,217	$ 2,265,307
Non-owner occupied commercial real estate								
Pass	$ 756,059	$ 515,075	$ 227,383	$ 261,964	$ 127,400	$ 210,289	$ 70,398	$ 2,168,568
Watch	8,131	792	2,849	38,218	38,510	16,180	547	105,227
Substandard	202	6,784	1,838	16,019	22,332	9,970	—	57,145
Non-owner occupied commercial real estate total	$ 764,392	$ 522,651	$ 232,070	$ 316,201	$ 188,242	$ 236,439	$ 70,945	$ 2,330,940
Real estate construction								
Pass	$ 597,370	$ 328,391	$ 88,660	$ 21,221	$ 2,568	$ 6,274	$ 8,252	$ 1,052,736
Watch	665	16,218	1,257	—	—	122	—	18,262
Substandard	2,587	356	173	446	1,478	44	—	5,084
Real estate construction total	$ 600,622	$ 344,965	$ 90,090	$ 21,667	$ 4,046	$ 6,440	$ 8,252	$ 1,076,082

As of December 31, 2022	Amortized Cost Basis of Term Loans by Year of Origination							
	2022	2021	2020	2019	2018	2017 and Prior	Revolving	Total
Agricultural and agricultural real estate								
Pass	$ 324,791	$ 140,252	$ 79,307	$ 34,447	$ 22,600	$ 38,672	$ 239,686	$ 879,755
Watch	3,795	515	3,865	641	444	672	902	10,834
Substandard	8,674	3,224	204	1,859	12,323	2,682	955	29,921
Agricultural and agricultural real estate total	$ 337,260	$ 143,991	$ 83,376	$ 36,947	$ 35,367	$ 42,026	$ 241,543	$ 920,510
Residential real estate								
Pass	$ 189,133	$ 268,561	$ 64,627	$ 39,468	$ 34,863	$ 217,489	$ 23,331	$ 837,472
Watch	706	1,095	88	957	2,296	2,237	399	7,778
Substandard	28	1,273	1,024	99	792	4,895	—	8,111
Residential real estate total	$ 189,867	$ 270,929	$ 65,739	$ 40,524	$ 37,951	$ 224,621	$ 23,730	$ 853,361
Consumer								
Pass	$ 80,592	$ 47,787	$ 11,722	$ 6,022	$ 4,840	$ 24,655	$ 325,247	$ 500,865
Watch	20	191	35	119	74	1,584	953	2,976
Substandard	188	331	242	303	75	1,539	194	2,872
Consumer total	$ 80,800	$ 48,309	$ 11,999	$ 6,444	$ 4,989	$ 27,778	$ 326,394	$ 506,713
Total pass	$ 3,426,595	$ 2,531,820	$ 987,722	$ 731,348	$ 353,990	$ 1,098,194	$ 1,765,364	$ 10,895,033
Total watch	48,034	23,598	21,125	53,942	47,851	36,009	24,785	255,344
Total substandard	21,341	52,821	39,340	47,255	45,120	33,241	38,857	277,975
Total loans	$ 3,495,970	$ 2,608,239	$ 1,048,187	$ 832,545	$ 446,961	$ 1,167,444	$ 1,829,006	$ 11,428,352

As of December 31, 2021	Amortized Cost Basis of Term Loans by Year of Origination							
	2021	2020	2019	2018	2017	2016 and Prior	Revolving	Total
Commercial and industrial								
Pass	$ 604,659	$ 359,533	$ 203,960	$ 89,694	$ 171,709	$ 330,094	$ 708,525	$ 2,468,174
Watch	10,633	12,790	12,550	8,210	3,611	14,976	24,626	87,396
Substandard	19,888	6,391	13,050	8,535	6,619	12,052	22,980	89,515
Commercial and industrial total	$ 635,180	$ 378,714	$ 229,560	$ 106,439	$ 181,939	$ 357,122	$ 756,131	$ 2,645,085
PPP								
Pass	$ 146,370	$ 25,707	$ —	$ —	$ —	$ —	$ —	$ 172,077
Watch	10,726	127	—	—	—	—	—	10,853
Substandard	16,932	21	—	—	—	—	—	16,953
PPP total	$ 174,028	$ 25,855	$ —	$ —	$ —	$ —	$ —	$ 199,883
Owner occupied commercial real estate								
Pass	$ 940,043	$ 328,052	$ 315,497	$ 180,936	$ 115,142	$ 189,647	$ 34,233	$ 2,103,550
Watch	4,676	13,956	7,759	10,501	15,032	6,830	35	58,789
Substandard	11,958	20,769	13,734	2,809	13,912	13,063	1,750	77,995
Owner occupied commercial real estate total	$ 956,677	$ 362,777	$ 336,990	$ 194,246	$ 144,086	$ 209,540	$ 36,018	$ 2,240,334
Non-owner occupied commercial real estate								
Pass	$ 609,968	$ 263,093	$ 315,815	$ 236,823	$ 152,059	$ 166,792	$ 28,728	$ 1,773,278
Watch	4,754	9,109	35,496	29,227	4,865	35,901	—	119,352
Substandard	15,722	10,612	21,798	3,599	14,023	51,766	441	117,961
Non-owner occupied commercial real estate total	$ 630,444	$ 282,814	$ 373,109	$ 269,649	$ 170,947	$ 254,459	$ 29,169	$ 2,010,591

As of December 31, 2021	Amortized Cost Basis of Term Loans by Year of Origination							
	2021	2020	2019	2018	2017	2016 and Prior	Revolving	Total
Real estate construction								
Pass	$ 381,283	$ 206,879	$ 169,606	$ 14,197	$ 7,163	$ 7,823	$ 14,507	$ 801,458
Watch	2,704	858	2,145	44,846	—	—	14	50,567
Substandard	—	50	46	3,944	—	54	—	4,094
Real estate construction total	$ 383,987	$ 207,787	$ 171,797	$ 62,987	$ 7,163	$ 7,877	$ 14,521	$ 856,119
Agricultural and agricultural real estate								
Pass	$ 217,179	$ 102,030	$ 47,927	$ 32,913	$ 22,029	$ 35,548	$ 220,065	$ 677,691
Watch	4,018	10,390	4,688	2,270	33	2,038	2,948	26,385
Substandard	9,250	1,095	4,910	15,825	3,212	8,859	6,526	49,677
Agricultural and agricultural real estate total	$ 230,447	$ 113,515	$ 57,525	$ 51,008	$ 25,274	$ 46,445	$ 229,539	$ 753,753
Residential real estate								
Pass	$ 311,292	$ 86,355	$ 50,762	$ 53,773	$ 43,619	$ 230,566	$ 29,017	$ 805,384
Watch	3,928	1,499	750	1,452	734	1,977	1,000	11,340
Substandard	2,528	444	410	2,317	1,139	5,721	—	12,559
Residential real estate total	$ 317,748	$ 88,298	$ 51,922	$ 57,542	$ 45,492	$ 238,264	$ 30,017	$ 829,283
Consumer								
Pass	$ 69,172	$ 20,258	$ 13,051	$ 9,001	$ 10,986	$ 18,202	$ 271,034	$ 411,704
Watch	555	309	392	373	113	591	2,210	4,543
Substandard	267	204	218	236	363	1,611	378	3,277
Consumer total	$ 69,994	$ 20,771	$ 13,661	$ 9,610	$ 11,462	$ 20,404	$ 273,622	$ 419,524
Total pass	$ 3,279,966	$ 1,391,907	$ 1,116,618	$ 617,337	$ 522,707	$ 978,672	$ 1,306,109	$ 9,213,316
Total watch	41,994	49,038	63,780	96,879	24,388	62,313	30,833	369,225
Total substandard	76,545	39,586	54,166	37,265	39,268	93,126	32,075	372,031
Total loans	$ 3,398,505	$ 1,480,531	$ 1,234,564	$ 751,481	$ 586,363	$ 1,134,111	$ 1,369,017	$ 9,954,572

Included in HTLF's nonpass loans at December 31, 2022 were $2.7 million compared to $27.8 million at December 31, 2021, of nonpass PPP loans as a result of risk ratings on non-PPP related credits. HTLF's risk rating methodology assigns a risk rating to the whole lending relationship. HTLF has no allowance recorded related to the PPP loans because of the 100% SBA guarantee.

As of December 31, 2022, HTLF had $1.7 million of loans secured by residential real estate property that were in the process of foreclosure.

The following table sets forth information regarding HTLF's accruing and nonaccrual loans at December 31, 2022, and December 31, 2021, in thousands:

	Accruing Loans						
	30-59 Days Past Due	60-89 Days Past Due	90 Days or More Past Due	Total Past Due	Current	Nonaccrual	Total Loans
December 31, 2022							
Commercial and industrial	$ 1,099	$ 356	$ 131	$ 1,586	$ 3,440,062	$ 22,766	$ 3,464,414
PPP	—	—	—	—	11,006	19	11,025
Owner occupied commercial real estate	12	127	—	139	2,256,365	8,803	2,265,307
Non-owner occupied commercial real estate	—	—	—	—	2,319,282	11,658	2,330,940
Real estate construction	16	28	—	44	1,073,687	2,351	1,076,082
Agricultural and agricultural real estate	48	—	142	190	914,088	6,232	920,510
Residential real estate	1,206	152	—	1,358	846,739	5,264	853,361
Consumer	1,526	196	—	1,722	503,853	1,138	506,713
Total loans receivable held to maturity	$ 3,907	$ 859	$ 273	$ 5,039	$ 11,365,082	$ 58,231	$ 11,428,352

	Accruing Loans						
	30-59 Days Past Due	60-89 Days Past Due	90 Days or More Past Due	Total Past Due	Current	Nonaccrual	Total Loans
December 31, 2021							
Commercial and industrial	$ 1,024	$ 183	$ 541	$ 1,748	$ 2,625,109	$ 18,228	$ 2,645,085
PPP	—	—	—	—	199,883	—	199,883
Owner occupied commercial real estate	130	—	—	130	2,229,054	11,150	2,240,334
Non-owner occupied commercial real estate	3,929	—	—	3,929	1,993,346	13,316	2,010,591
Real estate construction	238	50	—	288	855,463	368	856,119
Agricultural and agricultural real estate	687	—	—	687	737,380	15,686	753,753
Residential real estate	767	46	9	822	819,294	9,167	829,283
Consumer	251	57	—	308	417,762	1,454	419,524
Total loans receivable held to maturity	$ 7,026	$ 336	$ 550	$ 7,912	$ 9,877,291	$ 69,369	$ 9,954,572

Loans delinquent 30 to 89 days as a percent of total loans were 0.04% at December 31, 2022, compared to 0.07% at December 31, 2021. Changes in credit risk are monitored on a continuous basis and changes in risk ratings are made when identified. All individually assessed loans are reviewed at least semi-annually.

HTLF recognized $0 of interest income on nonaccrual loans during the years ended December 31, 2022 and December 31, 2021. As of December 31, 2022, HTLF had $26.7 million compared to $25.5 million at December 31, 2021, of nonaccrual loans with no related allowance.

Loans are made in the normal course of business to directors, officers and principal holders of equity securities of HTLF. The terms of these loans, including interest rates and collateral, are similar to those prevailing for comparable transactions and do not involve more than a normal risk of collectability. Changes in such loans during the years ended December 31, 2022 and 2021, were as follows, in thousands. Due to changes in the organizational structure of the Banks' boards of directors related to charter consolidation, balances related to former directors and officers were removed and shown as "other" in the table below.

	2022	2021
Balance at beginning of year	$ 193,877	$ 215,449
Advances	1,382	69,204
Repayments	—	(90,776)
Other	(190,622)	—
Balance at end of year	$ 4,637	$ 193,877

FIVE
ALLOWANCE FOR CREDIT LOSSES

Changes in the allowance for credit losses for loans for the years ended December 31, 2022, 2021, and 2020 were as follows, in thousands:

	2022	2021	2020
Balance at beginning of year	$ 110,088	$ 131,606	$ 70,395
Impact of the adoption of ASU 2016-13 on January 1, 2020	—	—	12,071
Adjusted beginning balance	110,088	131,606	82,466
Allowance for purchased credit deteriorated loans	—	—	12,313
Provision (benefit) for credit losses	10,636	(17,706)	65,745
Recoveries on loans previously charged-off	7,055	4,931	3,804
Charge-offs on loans	(18,296)	(8,743)	(32,722)
Balance at end of year	$ 109,483	$ 110,088	$ 131,606

Changes in the allowance for credit losses for loans by loan category for the years ended December 31, 2022, and December 31, 2021, were as follows, in thousands:

	Balance at 12/31/2021	Charge-offs	Recoveries	Provision (Benefit)	Balance at 12/31/2022
Commercial and industrial	$ 27,738	$ (6,964)	$ 4,951	$ 3,346	$ 29,071
Owner occupied commercial real estate	19,214	(129)	112	(5,249)	13,948
Non-owner occupied commercial real estate	17,908	(193)	60	(1,236)	16,539
Real estate construction	22,538	(35)	13	7,482	29,998
Agricultural and agricultural real estate	5,213	(3,217)	653	(15)	2,634
Residential real estate	8,427	(307)	—	(409)	7,711
Consumer	9,050	(7,451)	1,266	6,717	9,582
Total	$ 110,088	$ (18,296)	$ 7,055	$ 10,636	$ 109,483

	Balance at 12/31/2020	Charge-offs	Recoveries	Provision (Benefit)	Balance at 12/31/2021
Commercial and industrial	$ 38,818	$ (2,150)	$ 3,058	$ (11,988)	$ 27,738
Owner occupied commercial real estate	20,001	(296)	152	(643)	19,214
Non-owner occupied commercial real estate	20,873	(1,637)	33	(1,361)	17,908
Real estate construction	20,080	(10)	10	2,458	22,538
Agricultural and agricultural real estate	7,129	(1,902)	531	(545)	5,213
Residential real estate	11,935	(181)	13	(3,340)	8,427
Consumer	12,770	(2,567)	1,134	(2,287)	9,050
Total	$ 131,606	$ (8,743)	$ 4,931	$ (17,706)	$ 110,088

Changes in the allowance for credit losses on unfunded commitments for the years ended December 31, 2022 and December 31, 2021, were as follows:

	For the Years Ended December 31,	
	2022	2021
Beginning balance	$ 15,462	$ 15,280
Provision	4,734	182
Ending balance	$ 20,196	$ 15,462

Management allocates the allowance for credit losses by pools of risk within each loan portfolio. The total allowance for credit losses is available to absorb losses from any segment of the loan portfolio.

SIX
PREMISES, FURNITURE AND EQUIPMENT

Premises, furniture and equipment, excluding those held for sale, as of December 31, 2022, and December 31, 2021, were as follows, in thousands:

	2022	2021
Land and land improvements	$ 56,599	$ 59,195
Buildings and building improvements	172,585	177,296
Furniture and equipment	66,685	73,091
Total	295,869	309,582
Less accumulated depreciation	(105,390)	(104,583)
Premises, furniture and equipment, net	$ 190,479	$ 204,999

Depreciation expense on premises, furniture and equipment was $13.2 million, $13.5 million and $11.8 million for 2022, 2021 and 2020, respectively. Depreciation expense on buildings and building improvements of $6.3 million, $6.9 million and $6.5 million for the years ended December 31, 2022, 2021, and 2020, respectively, is recorded in occupancy expense on the consolidated statements of income. Depreciation expense on furniture and equipment of $6.9 million, $6.6 million and $5.3 million for the years ended December 31, 2022, 2021, and 2020, respectively, is recorded in furniture and equipment expense on the consolidated statements of income.

SEVEN
GOODWILL, CORE DEPOSIT INTANGIBLES AND OTHER INTANGIBLE ASSETS

HTLF had goodwill of $576.0 million at both December 31, 2022, and December 31, 2021. HTLF conducts its annual internal assessment of the goodwill both at the consolidated level and at the reporting unit level as of September 30. There was no goodwill impairment as of the most recent assessment.

Other intangible assets consist of core deposit intangibles, mortgage servicing rights, customer relationship intangible and commercial servicing rights. The gross carrying amount of other intangible assets and the associated accumulated amortization at December 31, 2022, and December 31, 2021, are presented in the table below, in thousands:

	December 31, 2022			December 31, 2021		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Amortizing intangible assets:						
Core deposit intangibles	$ 101,185	$ 76,031	$ 25,154	$ 101,185	$ 68,330	$ 32,855
Customer relationship intangible	1,177	1,177	—	1,177	1,044	133
Mortgage servicing rights	13,700	5,860	7,840	12,790	6,378	6,412
Commercial servicing rights	7,054	7,054	—	7,054	6,576	478
Total	$ 123,116	$ 90,122	$ 32,994	$ 122,206	$ 82,328	$ 39,878

The following table shows the estimated future amortization expense for amortizable intangible assets, in thousands:

	Core Deposit Intangibles	Mortgage Servicing Rights	Total
Year ending December 31,			
2023	$ 6,739	$ 1,960	$ 8,699
2024	5,591	1,680	7,271
2025	4,700	1,400	6,100
2026	3,533	1,120	4,653
2027	2,601	840	3,441
Thereafter	1,990	840	2,830
Total	$ 25,154	$ 7,840	$ 32,994

Projections of amortization expense for mortgage servicing rights are based on existing asset balances and the existing interest rate environment as of December 31, 2022. HTLF's actual experience may be significantly different depending upon changes in mortgage interest rates and market conditions. Mortgage loans serviced for others were $725.9 million and $723.3 million as of December 31, 2022, and December 31, 2021, respectively. Custodial escrow balances maintained in connection with the mortgage loan servicing portfolio were approximately $5.1 million and $4.5 million as of December 31, 2022, and December 31, 2021, respectively.

The following table summarizes, in thousands, the changes in capitalized mortgage servicing rights for the twelve months ended December 31, 2022, and December 31, 2021:

	2022	2021
Balance at January 1,	$ 6,412	$ 5,189
Originations	1,425	1,522
Amortization	(1,139)	(1,387)
Writedown on mortgage servicing rights	(516)	—
Valuation adjustment	1,658	1,088
Balance at December 31,	$ 7,840	$ 6,412
Fair value of mortgage servicing rights	$ 7,840	$ 6,412

HTLF had a commercial servicing portfolio, which was comprised of loans guaranteed by the Small Business Administration and the United States Department of Agriculture that were sold with servicing retained by HTLF, which totaled $0 and $45.4 million at December 31, 2022 and 2021, respectively. The commercial servicing rights portfolio was separated into two tranches at the respective HTLF subsidiary, loans with a term of less than 20 years and loans with a term of more than 20 years. Fees collected for the servicing of commercial loans for others were $536,000 and $879,000 for the years ended December 31, 2021 and 2020, respectively.

The following table summarizes, in thousands, the changes in capitalized commercial servicing rights for the years ended December 31, 2022, and December 31, 2021:

	2022	2021
Balance at January 1,	$ 478	$ 863
Originations	—	—
Amortization	(478)	(385)
Balance at December 31,	$ —	$ 478
Fair value of commercial servicing rights	$ —	$ 782
Commercial servicing rights, net to servicing portfolio	— %	1.05 %

Mortgage and commercial servicing rights are initially recorded at fair value in net gains on sale of loans held for sale when they are acquired through loan sales. Fair value is based on market prices for comparable servicing contracts, when available, or based on a valuation model that calculates the present value of estimated future net servicing income.

Mortgage and commercial servicing rights are subsequently measured using the amortization method, which requires the asset to be amortized into noninterest income in proportion to, and over the period of, the estimated future net servicing income of the underlying loans. Servicing rights are evaluated for impairment at each HTLF subsidiary based upon the fair value of the assets as compared to the carrying amount. Impairment is recognized through a valuation allowance for specific tranches to the extent that fair value is less than carrying amount at each HTLF subsidiary.

The following table summarizes, in thousands, the book value, the fair value of each tranche of the mortgage servicing rights and any recorded valuation allowance at December 31, 2022, and December 31, 2021:

	Book Value 15-Year Tranche	Fair Value 15-Year Tranche	Valuation Allowance 15-Year Tranche	Book Value 30-Year Tranche	Fair Value 30-Year Tranche	Valuation Allowance 30-Year Tranche
December 31, 2022	$ 1,388	$ 1,388	$ —	$ 6,452	$ 6,452	$ —
December 31, 2021	$ 1,607	$ 1,280	$ 327	$ 6,463	$ 5,132	$ 1,331

The fair value of HTLF's mortgage servicing rights was estimated at $7.8 million and $6.4 million at December 31, 2022, and December 31, 2021, respectively, and is comprised of loans serviced for the Federal National Mortgage Association ("FNMA") and the Federal Home Loan Mortgage Corporation ("FHLMC").

The fair value of mortgage servicing rights is calculated based upon a discounted cash flow analysis. Cash flow assumptions, including prepayment speeds, servicing costs and escrow earnings are considered in the calculation. The following table presents key assumptions used to value the mortgage servicing rights as of December 31, 2022 and 2021, dollars in thousands:

	As of December 31,	
	2022	2021
Weighted average constant prepayment rate	7.90 %	13.40 %
Weighted average discount rate	10.02 %	9.02 %
Fair value of mortgage servicing rights	$ 7,840	$ 6,412

The average capitalization rate for 2022 ranged from 83 to 148 basis points compared to a range of 76 to 120 basis points for 2021. Fees collected for the servicing of mortgage loans for others were $1.8 million, $1.8 million and $1.7 million for the years ended December 31, 2022, 2021 and 2020, respectively.

At December 31, 2021, the less than 20 years tranche of the commercial servicing rights had a book value of $45,000 and a fair value of $98,000, and the more than 20 years tranche of the commercial servicing rights had a book value of $433,000 and a fair value of $684,000.

The fair value of each commercial servicing rights portfolio is calculated based upon a discounted cash flow analysis. Cash flow assumptions, including prepayment speeds and servicing costs, are considered in the calculation. The range of average constant prepayment rates for the portfolio valuations was 12.52% and 16.88% as of December 31, 2021. The discount rate range was 9.20% and 10.66% for the December 31, 2021 valuations. There were no capitalizations during 2021.

EIGHT
DEPOSITS

At December 31, 2022, the scheduled maturities of time certificates of deposit were as follows, in thousands:

2023	$ 1,531,996
2024	227,991
2025	22,492
2026	15,590
2027	18,003
Thereafter	1,206
Total	$ 1,817,278

The aggregate amount of time certificates of deposit in denominations of $100,000 or more as of December 31, 2022, and December 31, 2021, were $1.50 billion and $605.2 million, respectively. The aggregate amount of time certificates of deposit in denominations of $250,000 or more as of December 31, 2022, and December 31, 2021 were $1.28 billion and $333.7 million, respectively.

Interest expense on deposits for the years ended December 31, 2022, 2021, and 2020, was as follows, in thousands:

	2022	2021	2020
Savings and money market accounts	$ 46,623	$ 9,063	$ 16,560
Time certificates of deposit in denominations of $100,000 or more	2,217	3,463	8,244
Other time deposits	8,040	2,271	5,483
Interest expense on deposits	$ 56,880	$ 14,797	$ 30,287

Total uninsured deposits were $7.70 billion as of December 31, 2022.

NINE
SHORT-TERM BORROWINGS

Short-term borrowings, which HTLF defines as borrowings with an original maturity of one year or less, as of December 31, 2022, and 2021, were as follows, in thousands:

	2022	2021
Retail repurchase agreements	$ 95,303	$ 122,996
Advances from the FHLB	50,000	—
Advances from the federal discount window	224,000	—
Other short-term borrowings	6,814	8,601
Total	$ 376,117	$ 131,597

HTLF renewed its revolving credit line agreement with an unaffiliated bank on June 14, 2022, which provides $100.0 million of borrowing capacity. This revolving credit line agreement is included in short-term borrowings, and the primary purpose of this credit line agreement is to provide short-term liquidity to HTLF. HTLF had no advances on this line during 2022, and there was no outstanding balance at both December 31, 2022, and December 31, 2021.

The revolving credit line agreement expires on June 14, 2024, at which time any outstanding balance is due.

All retail repurchase agreements as of December 31, 2022, and 2021, were due within twelve months.

Average and maximum balances and rates on aggregate short-term borrowings outstanding during the years ended December 31, 2022, December 31, 2021 and December 31, 2020, were as follows, in thousands:

	2022	2021	2020
Maximum month-end balance	$ 376,117	$ 299,457	$ 380,360
Average month-end balance	191,306	173,556	157,348
Weighted average interest rate for the year	1.61 %	0.26 %	0.39 %
Weighted average interest rate at year-end	4.07 %	0.19 %	0.18 %

All HTLF's Banks have availability to borrow short-term funds under the Discount Window Program based upon pledged securities with an outstanding balance of $1.49 billion and pledged commercial loans under the Borrower-In Custody of Collateral Program of $60.8 million, which provided total borrowing capacity of $725.6 million, of which $501.6 million was available at December 31, 2022. There were $224.0 million in borrowings outstanding at December 31, 2022 and no outstanding balance at December 31, 2021.

TEN
OTHER BORROWINGS

Other borrowings, which HTLF defines as borrowings with an original maturity date of more than one year, outstanding at December 31, 2022 and 2021, are shown in the table below, net of unamortized discount and issuance costs, in thousands:

	2022	2021
Advances from the FHLB; weighted average interest rates were 3.03% at both December 31, 2022 and 2021, respectively	$ 740	$ 898
Trust preferred securities	148,284	147,316
Contracts payable for purchase of real estate and other assets	82	1,593
Subordinated notes	222,647	222,265
Total	$ 371,753	$ 372,072

The HTLF Banks are members of the FHLB of Des Moines, Chicago, Dallas and Topeka. At December 31, 2022, none of HTLF's FHLB advances had call features. The advances from the FHLB are collateralized by a portion of the HTLF Banks' investments in FHLB stock of $10.9 million and $8.5 million at December 31, 2022 and 2021, respectively. In addition, the FHLB advances are collateralized with pledges of one- to four-family residential mortgages, commercial and agricultural mortgages and securities totaling $4.00 billion at December 31, 2022, and $4.43 billion at December 31, 2021. At December 31, 2022, HTLF had $581.2 million of remaining FHLB borrowing capacity.

At December 31, 2022, HTLF had fifteen wholly-owned trust subsidiaries that were formed to issue trust preferred securities, which includes trust subsidiaries acquired in acquisitions since 2013. The proceeds from the offerings were used to purchase junior subordinated debentures from HTLF and were in turn used by HTLF for general corporate purposes. HTLF has the option to shorten the maturity date to a date not earlier than the callable date. HTLF may not shorten the maturity date without prior approval of the Board of Governors of the Federal Reserve System, if required. Early redemption is permitted under certain circumstances, such as changes in tax or regulatory capital rules. In connection with these offerings of trust preferred securities, the balance of deferred issuance costs included in other borrowings was $40,000 and $44,000 as of December 31, 2022 and December 31, 2021, respectively. These deferred costs are amortized on a straight-line basis over the life of the debentures. The majority of the interest payments are due quarterly.

A schedule of HTLF's trust preferred offerings outstanding, as of December 31, 2022, were as follows, in thousands:

	Amount Issued	Interest Rate	Interest Rate as of 12/31/22	Maturity Date	Callable Date
Heartland Financial Statutory Trust IV	$ 10,310	2.75% over LIBOR	7.49%	03/17/2034	03/17/2023
Heartland Financial Statutory Trust V	20,619	1.33% over LIBOR	5.41%	04/07/2036	04/07/2023
Heartland Financial Statutory Trust VI	20,619	1.48% over LIBOR	6.25%	09/15/2037	03/15/2023
Heartland Financial Statutory Trust VII	18,042	1.48% over LIBOR	6.24%	09/01/2037	03/01/2023
Morrill Statutory Trust I	9,370	3.25% over LIBOR	7.97%	12/26/2032	03/26/2023
Morrill Statutory Trust II	9,087	2.85% over LIBOR	7.59%	12/17/2033	03/17/2023
Sheboygan Statutory Trust I	6,790	2.95% over LIBOR	7.69%	09/17/2033	03/17/2023
CBNM Capital Trust I	4,558	3.25% over LIBOR	8.02%	12/15/2034	03/15/2023
Citywide Capital Trust III	6,605	2.80% over LIBOR	7.22%	12/19/2033	04/23/2023
Citywide Capital Trust IV	4,468	2.20% over LIBOR	6.89%	09/30/2034	05/23/2023
Citywide Capital Trust V	12,424	1.54% over LIBOR	6.31%	07/25/2036	03/15/2023
OCGI Statutory Trust III	3,020	3.65% over LIBOR	8.48%	09/30/2032	03/30/2023
OCGI Capital Trust IV	5,511	2.50% over LIBOR	7.27%	12/15/2034	03/15/2023
BVBC Capital Trust II	7,319	3.25% over LIBOR	7.69%	04/24/2033	04/24/2023
BVBC Capital Trust III	9,582	1.60% over LIBOR	6.35%	09/30/2035	03/30/2023
Total trust preferred offerings	148,324				
Less: deferred issuance costs	(40)				
	$ 148,284				

On September 8, 2021, HTLF issued $150.0 million of Fixed-to-Floating Rate Subordinated Notes due 2031 (the "2021 subordinated notes"), which were issued at par with an underwriting discount of $1.9 million. The 2021 subordinated notes have a fixed interest rate of 2.75% until September 15, 2026, at which time the interest rate will be reset quarterly to a benchmark interest rate, which is expected to be three-month term SOFR plus a spread of 210 basis points. Interest is payable quarterly. The 2021 subordinated notes mature on September 15, 2031, and become redeemable at HTLF's option on September 15, 2026. In connection with the sale of the notes, the balance of deferred issuance costs included in other borrowings was $443,000 at December 31, 2022, and $494,000 at December 31,2021. These deferred costs are amortized on a straight-line basis over the life of the notes.

On December 17, 2014, HTLF issued $75.0 million of subordinated notes with a maturity date of December 30, 2024. The notes were issued at par with an underwriting discount of $1.1 million. The interest rate on the notes is fixed at 5.75% per annum, payable semi-annually. In connection with the sale of the notes, the balance of deferred issuance costs included in other borrowings was $76,000 at December 31, 2022, and $114,000 at December 31, 2021. These deferred costs are amortized on a straight-line basis over the life of the notes.

For regulatory purposes, $162.9 million of the total $222.6 million of subordinated notes qualified as Tier 2 capital as of December 31, 2022.

Future payments, net of unamortized discount and issuance costs, at December 31, 2022, for other borrowings at their maturity date follow in the table below, in thousands.

2023	$ 82
2024	74,715
2025	—
2026	—
2027	196
Thereafter	296,760
Total	$ 371,753

ELEVEN
DERIVATIVE FINANCIAL INSTRUMENTS

HTLF uses derivative financial instruments as part of its interest rate risk management strategy. As part of the strategy, HTLF considers the use of interest rate swaps, risk participation agreements, caps, floors and collars and certain interest rate lock commitments and forward sales of securities related to mortgage banking activities. HTLF's current strategy includes the use of interest rate swaps, interest rate lock commitments and forward sales of mortgage securities. In addition, HTLF is facilitating back-to-back loan swaps to assist customers in managing their interest rate risk while executing offsetting interest rate swaps with dealer counterparties. HTLF's objectives are to add stability to its net interest margin and to manage its exposure to movement in interest rates. The contract or notional amount of a derivative is used to determine, along with the other terms of the derivative, the amounts to be exchanged between the counterparties. HTLF is exposed to credit risk in the event of nonperformance by counterparties to financial instruments. HTLF minimizes this risk by entering into derivative contracts with large, stable financial institutions. HTLF has not experienced any losses from nonperformance by these counterparties. HTLF monitors counterparty risk in accordance with the provisions of ASC 815.

HTLF's derivative and hedging instruments are recorded at fair value on the consolidated balance sheets. See Note 19, "Fair Value," for additional fair value information and disclosures.

Cash Flow Hedges
During the third quarter of 2021, the interest rate swap transactions associated with Heartland Financial Statutory VI and VII were terminated, and the debt was converted to variable rate subordinated debentures. In addition, HTLF had two swap transactions associated with an unaffiliated bank, one of which matured in the second quarter, and the other was terminated in the third quarter. The underlying debt with the unaffiliated bank was paid off in the third quarter of 2021. For the next twelve months, HTLF estimates that cash payments and reclassification from accumulated other comprehensive income to interest expense related to the terminated swaps will total $733,000.

HTLF has variable rate loans which creates exposure to variability in interest payments due to changes in interest rates. To manage the interest rate risk related to the variability of the interest receipts, HTLF entered into one interest rate swap agreement in 2022 to effectively convert $500.0 million of variable rate loans to fixed rate loans. For accounting purposes, this swap transaction is designated as a cash flow hedge of the changes in one-month SOFR, the benchmark interest rate being hedged, associated with the interest receipts made on $500.0 million of HTLF's variable rate loans that reset quarterly on a specified reset date.

Amounts reported in accumulated other comprehensive income related to derivatives will be reclassified to interest income as interest payments are received or made on Heartland's variable-rate assets. For the twelve months ended December 31, 2022, the change in net unrealized losses on cash flow hedges reflects changes in the fair value of the swaps and reclassification from accumulated other comprehensive loss to interest expense totaling $487,000. For the next twelve months, Heartland estimates that cash payments and reclassification from accumulated other comprehensive loss to interest expense will total $2.9 million.

The table below identifies the balance sheet category and fair value of HTLF's derivative instrument designated as a cash flow hedge at December 31, 2022, in thousands. At December 31, 2021, HTLF had no derivative instruments designated as cash flow hedges.

	Notional Amount	Fair Value	Balance Sheet Category
December 31, 2022			
Interest rate swap	$ 500,000	$ 13	Other Assets

The table below identifies the gains recognized on HTLF's derivative instrument designated as a cash flow hedge for the year ended December 31, 2022, in thousands:

	Recognized in OCI	Reclassified from AOCI into Income	
	Amount of Gain (Loss)	Category	Amount of Gain (Loss)
December 31, 2022			
Interest rate swap	$ 13	Interest income	$ 487

Fair Value Hedges

HTLF uses interest rate swaps to convert certain long term fixed rate loans to floating rates to hedge interest rate risk exposure. HTLF uses hedge accounting in accordance with ASC 815, with the unrealized gains and losses, representing the change in fair value of the derivative and the change in fair value of the risk being hedged on the related loan, being recorded in the consolidated statements of income. The ineffective portions of the unrealized gains or losses, if any, are recorded in interest income and interest expense in the consolidated statements of income. HTLF uses statistical regression to assess hedge effectiveness, both at the inception of the hedge as well as on a continual basis. The regression analysis involves regressing the periodic change in the fair value of the hedging instrument against the periodic changes in the fair value of the asset being hedged due to changes in the hedge risk.

HTLF was required to pledge $481,000 and $3.8 million of cash as collateral for these fair value hedges at December 31, 2022, and December 31, 2021, respectively.

The table below identifies the notional amount, fair value and balance sheet category of HTLF's fair value hedges at December 31, 2022, and December 31, 2021, in thousands:

	Notional Amount	Fair Value	Balance Sheet Category
December 31, 2022			
Fair value hedges	$ 1,185	$ 54	Other Assets
December 31, 2021			
Fair value hedges	$ 16,755	$ (1,208)	Other Liabilities

The table below identifies the gains and losses recognized on HTLF's fair value hedges for the years ended December 31, 2022, and December 31, 2021, in thousands:

	Year Ended December 31,	
	2022	2021
Gain (loss) recognized in interest income on fair value hedges	$ 1,262	$ 1,272

Embedded Derivatives

HTLF has fixed rate loans with embedded derivatives. The loans contain terms that affect the cash flows or value of the loan similar to a derivative instrument, and therefore are considered to contain an embedded derivative. The embedded derivatives are bifurcated from the loans because the terms of the derivative instrument are not clearly and closely related to the loans. The embedded derivatives are recorded at fair value on the consolidated balance sheets as a part of other assets, and changes in the fair value are a component of noninterest income. The table below identifies the notional amount, fair value and balance sheet category of HTLF's embedded derivatives as of December 31, 2022, and December 31, 2021, in thousands:

	Notional Amount		Fair Value	Balance Sheet Category
December 31, 2022				
Embedded derivatives	$	6,028	$ 135	Other Assets
December 31, 2021				
Embedded derivatives	$	7,496	$ (317)	Other Liabilities

The table below identifies the gains and losses recognized on HTLF's embedded derivatives for the years ended December 31, 2022 and December 31, 2021, in thousands:

	Year Ended December 31,	
	2022	2021
Gain (loss) recognized in other noninterest income on embedded derivatives	$ 452	$ (997)

Back-to-Back Loan Swaps

HTLF has interest rate swap loan relationships with customers to meet their financing needs. Upon entering into these loan swaps, HTLF enters into offsetting positions with counterparties in order to minimize interest rate risk. These back-to-back loan swaps qualify as free standing financial derivatives with the fair values reported in other assets and other liabilities on the consolidated balance sheets. HTLF was required to post $312,000 and $24.1 million as of December 31, 2022, and December 31, 2021, respectively, as collateral related to these back-to-back swaps. HTLF's counterparties were required to pledge $45.1 million at December 31, 2022 compared to $0 at December 31, 2021, related to these back-to-back swaps. Any gains and losses on these back-to-back swaps are recorded in noninterest income on the consolidated statements of income, and for the years ended December 31, 2022, and December 31, 2021, no gains or losses were recognized. The table below identifies the balance sheet category and fair values of HTLF's derivative instruments designated as loan swaps at December 31, 2022 and 2021, in thousands:

	Notional Amount	Fair Value	Balance Sheet Category	Weighted Average Receive Rate	Weighted Average Pay Rate
December 31, 2022					
Customer interest rate swaps	$ 819,662	$ 46,091	Other Assets	4.23 %	6.76 %
Customer interest rate swaps	819,662	(46,091)	Other Liabilities	6.76 %	4.23 %
December 31, 2021					
Customer interest rate swaps	$ 463,069	$ 23,574	Other Assets	4.44 %	2.35 %
Customer interest rate swaps	463,069	(23,574)	Other Liabilities	2.35 %	4.44 %

Other Free Standing Derivatives

HTLF has entered into interest rate lock commitments to originate residential mortgage loans held for sale and forward commitments to sell residential mortgage loans and mortgage backed securities that are considered derivative instruments. HTLF enters into forward commitments for the future delivery of residential mortgage loans when interest rate lock commitments are entered into in order to economically hedge the effect of future changes in interest rates on the commitments to fund the loans as well as on residential mortgage loans available for sale. The fair value of these commitments is recorded on the consolidated balance sheets with the changes in fair value recorded in the consolidated statements of income as a component of gains on sale of loans held for sale. These derivative contracts are designated as free standing derivative contracts and are not designated against specific assets and liabilities on the consolidated balance sheets or forecasted transactions and therefore do not qualify for hedge accounting treatment. HTLF was required to pledge $0 at both December 31, 2022, and December 31, 2021, as collateral for these forward commitments. HTLF's counterparties were required to pledge no cash as collateral at both December 31, 2022, and December 31, 2021, as collateral for these forward commitments.

HTLF acquired undesignated interest rate swaps in 2015. These swaps were entered into primarily for the benefit of customers seeking to manage their interest rate risk and are not designated against specific assets or liabilities on the consolidated balance sheet or forecasted transactions and therefore do not qualify for hedge accounting in accordance with ASC 815. These swaps are carried at fair value on the consolidated balance sheets as a component of other liabilities, with changes in the fair value recorded as a component of other noninterest income.

The table below identifies the balance sheet category and fair values of HTLF's other free standing derivative instruments not designated as hedging instruments at December 31, 2022, and December 31, 2021, in thousands:

	Notional Amount	Fair Value	Balance Sheet Category
December 31, 2022			
Interest rate lock commitments (mortgage)	$ 9,340	$ 174	Other Assets
Forward commitments	6,400	47	Other Assets
Forward commitments	5,750	(99)	Other Liabilities
Undesignated interest rate swaps	6,028	(135)	Other Liabilities
December 31, 2021			
Interest rate lock commitments (mortgage)	$ 37,046	$ 1,306	Other Assets
Forward commitments	19,000	32	Other Assets
Forward commitments	35,500	(95)	Other Liabilities
Undesignated interest rate swaps	7,496	317	Other Assets

HTLF recognizes gains and losses on other free standing derivatives in two separate income statement categories. Interest rate lock commitments and forward commitments are recognized in net gains on sale of loans held for sale and undesignated interest rate swaps are recognized in other noninterest income. The table below identifies the gains and losses recognized in income on HTLF's other free standing derivative instruments not designated as hedging instruments for the years ended December 31, 2022, and December 31, 2021, in thousands:

	Year Ended December 31,	
	2022	2021
Interest rate lock commitments (mortgage)	$ (1,828)	$ (2,345)
Forward commitments	15	32
Forward commitments	(4)	602
Undesignated interest rate swaps	(452)	997

TWELVE
INCOME TAXES

The current income tax provision reflects the tax consequences of revenue and expenses currently taxable or deductible on various income tax returns for the year reported. The deferred income tax provision generally reflects the net change in deferred income tax assets and liabilities during the year, excluding any deferred income tax assets and liabilities of acquired businesses. The components of the provision for income taxes for the years ended December 31, 2022, 2021, and 2020 were as follows, in thousands:

	2022	2021	2020
Current:			
Federal	$ 45,911	$ 32,440	$ 34,513
State	13,549	11,352	12,450
Total current expense	$ 59,460	$ 43,792	$ 46,963
Deferred:			
Federal	$ (3,637)	$ 8,938	$ (8,498)
State	(250)	2,605	(2,412)
Total deferred expense (benefit)	(3,887)	11,543	(10,910)
Total income tax expense	$ 55,573	$ 55,335	$ 36,053

Temporary differences between the amounts reported in the financial statements and the tax basis of assets and liabilities result in deferred taxes. Deferred tax assets and liabilities at December 31, 2022 and 2021, were as follows, in thousands:

	2022	2021
Deferred tax assets:		
Tax effect of net unrealized loss on securities carried at fair value reflected in stockholders' equity	$ 159,763	$ 1,715
Tax effect of net unrealized loss on derivatives reflected in stockholders' equity	210	367
Tax effect of net unrealized loss on securities transferred from carried at fair value to held to maturity reflected in stockholders' equity	45,174	—
Allowance for credit losses	28,732	28,149
Deferred compensation	12,861	11,299
Net operating loss carryforwards	21,844	18,874
Investments in partnerships	2,843	958
Deferred loan fees	—	1,691
Other	5,476	5,673
Total deferred tax assets	276,903	68,726
Valuation allowance for deferred tax assets	(19,001)	(15,120)
Total deferred tax assets after valuation allowance	$ 257,902	$ 53,606
Deferred tax liabilities:		
Premises, furniture and equipment	$ 9,227	$ 10,502
Purchase accounting	7,954	7,977
Deferred loan costs	6,078	5,164
Other	3,297	5,560
Total deferred tax liabilities	26,556	29,203
Net deferred tax assets	**$ 231,346**	**$ 24,403**

As a result of acquisitions, HTLF had net operating loss carryforwards for federal income tax purposes of approximately $17.2 million at December 31, 2022, and $20.5 million at December 31, 2021. The associated deferred tax asset was $3.6 million at December 31, 2022, and $4.3 million at December 31, 2021. These net carryforwards expire during the period from December 31, 2026, through December 31, 2039, and are subject to an annual limitation of approximately $3.5 million. Net operating loss carryforwards for state income tax purposes were approximately $203.4 million at December 31, 2022, and $183.3 million at December 31, 2021. The associated deferred tax asset, net of federal tax, was $16.3 million at December 31, 2022, and $14.3 million at December 31, 2021. These carryforwards have begun to expire and will continue to do so until December 31, 2039.

A valuation allowance against the deferred tax asset due to the uncertainty surrounding the utilization of these state net operating loss carryforwards was $15.5 million at December 31, 2022, and $13.2 million at December 31, 2021. During both 2022 and 2021, HTLF had book write-downs on investments that, for tax purposes, would generate capital losses upon disposal. Due to the uncertainty of HTLF's ability to utilize the potential capital losses, a valuation allowance for these potential losses totaled $1.5 million at December 31, 2022, and $1.9 million at December 31, 2021. HTLF released valuation allowances of $165,000 and $491,000 in 2022 and 2021, respectively, on deferred tax assets for capital losses it expects to realize on the disposal of partnership investments. HTLF generated capital gains from its strategic activities, which included various branch sales not conducted in the ordinary course of its business strategy. As a result of its net capital gains, HTLF was able to realize the benefit of its capital losses.

Realization of the deferred tax asset over time is dependent upon the existence of taxable income in carryback periods or the ability to generate sufficient taxable income in future periods. In determining that realization of the deferred tax asset was more likely than not, HTLF gave consideration to a number of factors, including its taxable income during carryback periods, its recent earnings history, its expectations for earnings in the future and, where applicable, the expiration dates associated with its tax carryforwards.

The actual income tax expense from continuing operations differs from the expected amounts for the years ended December 31, 2022, 2021, and 2020, (computed by applying the U.S. federal corporate tax rate of 21% for 2022, 2021, and 2020 income before income taxes) are as follows, in thousands:

	2022	2021	2020
Computed "expected" tax on net income	$ 56,228	$ 57,804	$ 36,538
Increase (decrease) resulting from:			
Nontaxable interest income	(5,804)	(5,504)	(4,011)
State income taxes, net of federal tax benefit	10,523	11,026	7,930
Tax credits	(6,613)	(7,613)	(4,521)
Valuation allowance	13	(440)	(374)
Excess tax expense/(benefit) on stock compensation	(113)	(270)	80
Other	1,339	332	411
Income taxes	$ 55,573	$ 55,335	$ 36,053
Effective tax rates	20.8 %	20.1 %	20.7 %

HTLF's income taxes included solar energy tax credits totaling $4.2 million, $6.1 million, and $2.3 million during 2022, 2021 and 2020, respectively. Federal historic rehabilitation tax credits included in HTLF's income taxes totaled $1.0 million, $720,000, and $1.1 million in 2022, 2021, and 2020, respectively. Additionally, investments in certain low-income housing partnerships totaled $10.4 million at December 31, 2022, $5.1 million at December 31, 2021, and $5.6 million at December 31, 2020. These investments generated federal low-income housing tax credits of $1.1 million during 2022, $538,000 at December 31, 2021 and $780,000 at December 31, 2020. These investments are expected to generate federal low-income housing tax credits of approximately $1.2 million for 2023, $1.0 million for 2024, $790,000 for 2025 and $740,000 for 2026. Additionally, HTLF had new markets tax credits of $300,000 in both 2022 and 2021, respectively.

On December 31, 2022, the amount of unrecognized tax benefits was $719,000, including $91,000 of accrued interest and penalties. On December 31, 2021, the amount of unrecognized tax benefits was $724,000, including $87,000 of accrued interest and penalties. If recognized, the entire amount of the unrecognized tax benefits would affect the effective tax rate.

The tax years ended December 31, 2019, and later remain subject to examination by the Internal Revenue Service. For state purposes, the tax years ended December 31, 2017, and later remain open for examination. HTLF does not anticipate any significant increase or decrease in unrecognized tax benefits during the next twelve months.

THIRTEEN
EMPLOYEE BENEFIT PLANS

HTLF sponsors a defined contribution retirement plan covering substantially all employees. The plan includes matching contributions and non-elective contributions. Matching contributions and non-elective contributions are limited to a maximum amount of the participant's wages as defined by federal law.

HTLF's subsidiaries made matching contributions of up to 3% of participants' wages in 2022, 2021, and 2020. Costs charged to operating expenses with respect to the matching contributions were $5.3 million, $5.1 million, and $4.1 million for 2022, 2021 and 2020, respectively.

Non-elective contributions to this plan are subject to approval by the HTLF Board of Directors. The HTLF subsidiaries fund and record as an expense all approved contributions. Costs of these contributions, charged to operating expenses, were $5.8 million, $5.1 million, and $4.8 million for 2022, 2021 and 2020, respectively.

In addition, HTLF has a non-qualified defined contribution plan that allows eligible employees to make voluntary contributions into a deferred compensation plan. Any non-elective contributions to this plan are subject to approval by the HTLF Board of Directors. For the years ended December 31, 2022, 2021 and 2020, the employer contributions to the non-qualified defined contribution plan were $222,500, $237,200 and $191,700, respectively, and are included in the matching contributions and non-elective contributions amounts noted above.

FOURTEEN
COMMITMENTS AND CONTINGENT LIABILITIES

HTLF utilizes a variety of financial instruments in the normal course of business to meet the financial needs of customers and to manage its exposure to fluctuations in interest rates. These financial instruments include lending related and other commitments as indicated below as well as derivative instruments shown in Note 11, "Derivative Financial Instruments." The HTLF Banks make various commitments and incur certain contingent liabilities that are not presented in the accompanying consolidated financial statements. The commitments and contingent liabilities include various guarantees, commitments to extend credit and standby letters of credit.

Commitments to extend credit are agreements to lend to a customer as long as there is no violation of any condition established in the contract. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Since many of the commitments are expected to expire without being drawn upon, the total commitment amounts do not necessarily represent future cash requirements. HTLF's Banks evaluate the creditworthiness of customers to which they extend a credit commitment on a case-by-case basis and may require collateral to secure any credit extended. The amount of collateral obtained is based upon management's credit evaluation of the counterparty. Collateral held varies but may include accounts receivable, inventory, property, plant and equipment and income-producing commercial properties. Standby letters of credit and financial guarantees are conditional commitments issued by HTLF's Banks to guarantee the performance of a customer to a third party. Those guarantees are primarily issued to support public and private borrowing arrangements. The credit risk involved in issuing letters of credit is essentially the same as that involved in extending loan facilities to customers. At December 31, 2022, and at December 31, 2021, commitments to extend credit aggregated $4.73 billion and $3.83 billion, respectively, and standby letters of credit aggregated $55.1 million and $51.4 million, respectively.

HTLF enters into commitments to sell mortgage loans to reduce interest rate risk on certain mortgage loans held for sale and loan commitments, which were recorded in the consolidated balance sheets at their fair values. HTLF does not anticipate any material loss as a result of the commitments and contingent liabilities. Residential mortgage loans sold to others are predominantly conventional residential first lien mortgages originated under HTLF's usual underwriting procedures and are most often sold on a nonrecourse basis. HTLF's agreements to sell residential mortgage loans in the normal course of business, primarily to GSE's, which usually require certain representations and warranties on the underlying loans sold, related to credit information, loan documentation, collateral, and insurability, which if subsequently are untrue or breached, could require HTLF to repurchase certain loans affected. HTLF had no repurchase obligation at both December 31, 2022 and December 31, 2021. HTLF had no new requests for repurchases during 2022 and 2021.

There are certain legal proceedings pending against HTLF and its subsidiaries at December 31, 2022, that are ordinary routine litigation incidental to business. While the ultimate outcome of current legal proceedings cannot be predicted with certainty, it is the opinion of management that the resolution of these legal actions should not have a material effect on Heartland's consolidated financial position or results of operation.

FIFTEEN
STOCK-BASED COMPENSATION

HTLF may grant, through its Compensation, Nominating and Corporate Governance Committee (the "Compensation Committee") non-qualified and incentive stock options, stock appreciation rights, stock awards, restricted stock, restricted stock units and cash incentive awards, under its 2020 Long-Term Incentive Plan (the "Plan") which authorized 1,460,000 of common stock available for issuance. At December 31, 2022, 963,563 shares of common stock were reserved for future issuance under awards that may be granted under the Plan to employees and directors of, and service providers to, HTLF or its subsidiaries.

ASC Topic 718, "*Compensation-Stock Compensation*" requires the measurement of the cost of employee services received in exchange for an award of equity instruments based upon the fair value of the award on the grant date. The cost of the award is based upon its fair value estimated on the date of grant and recognized in the consolidated statements of income over the vesting period of the award. The fair market value of restricted stock and restricted stock units is based on the fair value of the underlying shares of common stock on the date of grant. Forfeitures are accounted for as they occur.

HTLF's income tax expense included $131,000 and $312,000 of tax benefit for the years ended December 31, 2022, and December 31, 2021, respectively, related to the vesting and forfeiture of equity-based awards.

Restricted Stock Units

The Plan permits the Compensation Committee to grant restricted stock units ("RSUs"). The time-based RSUs represent the right, without payment, to receive shares of HTLF common stock at a specified date in the future. Generally, the time-based RSUs vest over three years in equal installments in March of each of the three years following the year of the grant.

The Compensation Committee has granted three-year performance-based RSUs. These performance-based RSUs will be earned based upon satisfaction of performance targets for the three-year performance period, which is defined in the RSU agreement. These performance-based RSUs or a portion thereof may vest after measurement of performance in relation to the performance targets.

The time-based RSUs may also vest upon death or disability, upon a change in control or upon a "qualified retirement" (as defined in the RSU agreement), and the three-year performance-based RSUs vest to the extent that they are earned upon death or disability or upon a "qualified retirement" (as defined in the RSU agreement) after measurement of performance.

All HTLF's RSUs will be settled in common stock upon vesting and are not entitled to dividends until vested.

A summary of the status of RSUs as of December 31, 2022, 2021 and 2020, and changes during the years ended December 31, 2022, 2021, and 2020, follows:

	2022		2021		2020	
	Shares	**Weighted-Average Grant Date Fair Value**	**Shares**	**Weighted-Average Grant Date Fair Value**	**Shares**	**Weighted-Average Grant Date Fair Value**
Outstanding at January 1	389,885	$ 44.19	348,275	$ 38.22	254,383	$ 46.76
Granted	242,718	48.38	216,560	51.44	232,586	32.06
Vested	(159,880)	44.96	(149,350)	40.83	(119,916)	44.47
Forfeited	(48,637)	45.49	(25,600)	40.96	(18,778)	46.10
Outstanding at December 31	424,086	$ 46.15	389,885	$ 44.19	348,275	$ 38.22

Total compensation costs recorded for RSUs were $7.8 million, $8.5 million and $7.2 million, for 2022, 2021 and 2020, respectively. As of December 31, 2022, there were $9.1 million of total unrecognized compensation costs related to the Plan for RSUs which are expected to be recognized through 2025.

Stock Options

The plan provides the Compensation Committee the authority to grant stock options. During the year ended December 31, 2022, 64,518 of options were granted, and the fair value of the options granted was determined using the Black-Scholes valuation model. There were no options granted in the years ended December 31, 2021 and 2020. The options granted in 2022 generally vest over the first four years in equal installments on the anniversary date of the grant. The exercise price of the stock options granted is established by the Compensation Committee, but the exercise price may not be less than the fair market value of the shares on the date the options are granted.

The stock options may also vest upon death or disability, upon a change in control or upon a "qualified retirement" as defined in the stock option agreement.

A summary of the status of the stock options as of December 31, 2022, 2021, and 2020, and changes during the years ended December 31, 2022, 2021, and 2020 follows:

	2022		2021		2020	
	Shares	**Weighted Average Exercise Price**	**Shares**	**Weighted Average Exercise Price**	**Shares**	**Weighted Average Exercise Price**
Outstanding at January 1,	—	$ —	—	$ —	—	$ —
Granted	64,518	48.79	—	—	—	—
Exercised	—	—	—	—	—	—
Forfeited	—	—	—	—	—	—
Outstanding at December 31	64,518	48.79	—	—	—	—
Options exercisable at December 31,	—	$ —	—	$ —	—	$ —

At December 31, 2022, the vested options have a weighted average remaining contractual life of 9.92 years. The intrinsic value for the vested options as of December 31, 2022, was $0. The intrinsic value for the total of all options exercised during year ended December 31, 2022, was $0. The total fair value of shares under stock options that vested during the year ended December 31, 2022, was $0. Total compensation costs recorded for stock options were $167,000, $0, and $0 for 2022, 2021, and 2020, respectively.

Employee Stock Purchase Plan
HTLF maintains an employee stock purchase plan (the "ESPP"), which was adopted in May 2016 and replaced the 2006 ESPP, that permits all eligible employees to purchase shares of HTLF common stock at a discounted price as determined by the Compensation Committee. Under ASC Topic 718, compensation expense related to the ESPP of $214,000 was recorded in 2022, $228,000 was recorded in 2021, and $186,000 was recorded in 2020.

A maximum of 500,000 shares is available for purchase under the ESPP, and as of December 31, 2022, 241,067 shares remain available for purchase. Beginning with the 2020 plan year, the Compensation Committee authorized HTLF to make ESPP purchases semi-annually, and the purchases are to be made as soon as practicable on or after June 30 and December 31. For employee deferrals made in the 2022 plan year, shares purchased in 2022 totaled 49,169. For employee deferrals made in the 2021 plan year, shares purchased in 2021 totaled 46,899. For employee deferrals made in the 2020 plan year, shares purchased in 2020 totaled 43,207.

SIXTEEN
STOCKHOLDER RIGHTS PLAN

HTLF adopted an Amended and Restated Rights Agreement (the "Extended Rights Plan"), dated as of January 17, 2012, which became effective upon approval by the stockholders on May 16, 2012. The Extended Rights Plan expired on January 17, 2022 and has not been renewed or extended.

In 2002, when the Rights Plan was originally created, HTLF designated 16,000 shares, par value $1.00 per share, of Series A Preferred Stock. There were no shares of Series A Preferred issued and outstanding at December 31, 2022 or December 31, 2021.

SEVENTEEN
CAPITAL ISSUANCES

Common Stock
For a description of the issuance of shares of HTLF common stock in connection with the 2020 Long-Term Incentive Plan and the 2016 ESPP, see Note 15, "Stock-Based Compensation."

Shelf Registration
HTLF filed a universal shelf registration with the SEC to register debt or equity securities on August 8, 2022, that expires on August 8, 2025. This registration statement, which was effective immediately, provides HTLF the ability to raise capital, subject to market conditions and SEC rules and limitations, if HTLF's board of directors decides to do so. This registration

statement permits HTLF, from time to time, in one or more public offerings, to offer debt securities, subordinated notes, common stock, preferred stock, depositary shares, warrants, rights, units or any combination of these securities. The amount of securities that may have been offered was not specified in the registration statement, and the terms of any future offerings were to be established at the time of the offering.

EIGHTEEN
REGULATORY CAPITAL REQUIREMENTS AND RESTRICTIONS ON SUBSIDIARY DIVIDENDS

The HTLF Banks are subject to various regulatory capital requirements administered by the federal banking agencies. Failure to meet minimum capital requirements can initiate certain mandatory, and possibly additional discretionary, actions by regulators that, if undertaken, could have a direct material effect on the HTLF Banks' financial statements. The regulations prescribe specific capital adequacy guidelines that involve quantitative measures of a bank's assets, liabilities and certain off balance sheet items as calculated under regulatory accounting practices. Capital classification is also subject to qualitative judgments by the regulators about components, risk weightings and other factors.

Quantitative measures established by regulation to ensure capital adequacy require the HTLF Banks to maintain minimum amounts and ratios (set forth in the table below) of total and Tier 1 capital (as defined in the regulations) to risk-weighted assets (as defined), and of Tier 1 capital (as defined) to average assets (as defined).

The requirements to be categorized as well-capitalized under the Tier 1 leverage capital ratio is 4% for all banks. The minimum requirement to be well-capitalized for the Tier 1 risk-based capital ratio is 8%. The total risk-based capital ratio minimum requirement to be well-capitalized remained is 10%. Management believes, as of December 31, 2022 and 2021, that the HTLF Banks met all capital adequacy requirements to which they were subject.

As of December 31, 2022 and 2021, the FDIC categorized each of the HTLF Banks as well capitalized under the regulatory framework for prompt corrective action. To be categorized as well capitalized, the HTLF Banks must maintain minimum total risk-based, Tier 1 risk-based, Tier 1 common equity and Tier 1 leverage ratios as set forth in the following table. There are no conditions or events since December 31, 2022, that management believes have changed each institution's category.

The HTLF Banks' actual capital amounts and ratios are also presented in the tables below, in thousands:

	Actual		For Capital Adequacy Purposes		To Be Well Capitalized Under Prompt Corrective Action Provisions	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
As of December 31, 2022						
Total Capital (to Risk-Weighted Assets)						
Consolidated	$ 2,204,829	14.76 %	$ 1,194,970	8.00 %	N/A	
HTLF Bank	824,069	11.72	562,497	8.00	$ 703,122	10.00 %
Dubuque Bank and Trust Company	184,096	13.01	113,197	8.00	141,497	10.00
Wisconsin Bank & Trust	128,490	13.12	78,336	8.00	97,920	10.00
New Mexico Bank & Trust	238,190	13.23	144,059	8.00	180,073	10.00
Rocky Mountain Bank	69,792	12.84	43,489	8.00	54,361	10.00
Bank of Blue Valley	162,131	16.07	80,689	8.00	100,861	10.00
First Bank & Trust	288,518	13.51	170,835	8.00	213,543	10.00
Tier 1 Capital (to Risk-Weighted Assets)						
Consolidated	$ 1,763,990	11.81 %	$ 896,228	6.00 %	N/A	
HTLF Bank	762,103	10.84	421,873	6.00	$ 562,497	8.00 %
Dubuque Bank and Trust Company	174,684	12.35	84,898	6.00	113,197	8.00
Wisconsin Bank & Trust	119,231	12.18	58,752	6.00	78,336	8.00
New Mexico Bank & Trust	223,602	12.42	108,044	6.00	144,059	8.00
Rocky Mountain Bank	63,814	11.74	32,617	6.00	43,489	8.00
Bank of Blue Valley	155,002	15.37	60,516	6.00	80,689	8.00
First Bank & Trust	267,169	12.51	128,126	6.00	170,835	8.00

	Actual		For Capital Adequacy Purposes		To Be Well Capitalized Under Prompt Corrective Action Provisions	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
As of December 31, 2022						
Common Equity Tier 1 (to Risk-Weighted Assets)						
Consolidated	$ 1,653,285	11.07 %	$ 672,171	4.50 %	N/A	
HTLF Bank	762,103	10.84	316,405	4.50	$ 457,029	6.50 %
Dubuque Bank and Trust Company	174,684	12.35	63,674	4.50	91,973	6.50
Wisconsin Bank & Trust	119,231	12.18	44,064	4.50	63,648	6.50
New Mexico Bank & Trust	223,602	12.42	81,033	4.50	117,048	6.50
Rocky Mountain Bank	63,814	11.74	24,463	4.50	35,335	6.50
Bank of Blue Valley	155,002	15.37	45,387	4.50	65,560	6.50
First Bank & Trust	267,169	12.51	96,094	4.50	138,803	6.50
Tier 1 Capital (to Average Assets)						
Consolidated	$ 1,763,990	9.13 %	$ 772,911	4.00 %	N/A	
HTLF Bank	762,103	8.64	352,914	4.00	$ 441,143	5.00 %
Dubuque Bank and Trust Company	174,684	8.08	86,473	4.00	108,091	5.00
Wisconsin Bank & Trust	119,231	9.22	51,753	4.00	64,691	5.00
New Mexico Bank & Trust	223,602	8.12	110,214	4.00	137,767	5.00
Rocky Mountain Bank	63,814	8.49	30,064	4.00	37,580	5.00
Bank of Blue Valley	155,002	10.75	57,676	4.00	72,095	5.00
First Bank & Trust	267,169	9.29	115,026	4.00	143,782	5.00

	Actual		For Capital Adequacy Purposes		To Be Well Capitalized Under Prompt Corrective Action Provisions	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
As of December 31, 2021						
Total Capital (to Risk-Weighted Assets)						
Consolidated	$ 2,040,500	15.90 %	$ 1,026,345	8.00 %	N/A	
Dubuque Bank and Trust Company	180,934	13.07	110,758	8.00	$ 138,447	10.00 %
Illinois Bank & Trust	135,986	12.88	84,466	8.00	105,583	10.00
Wisconsin Bank & Trust	124,009	14.27	69,499	8.00	86,874	10.00
New Mexico Bank & Trust	213,981	12.10	141,530	8.00	176,912	10.00
Arizona Bank & Trust	157,475	12.61	99,886	8.00	124,858	10.00
Rocky Mountain Bank	64,366	13.07	39,385	8.00	49,231	10.00
Citywide Banks	265,964	15.09	140,999	8.00	176,248	10.00
Minnesota Bank & Trust	87,263	14.79	47,194	8.00	58,993	10.00
Bank of Blue Valley	160,694	16.74	76,785	8.00	95,982	10.00
Premier Valley Bank	111,741	12.82	69,720	8.00	87,151	10.00
First Bank & Trust	282,231	15.48	145,823	8.00	182,279	10.00

	Actual		For Capital Adequacy Purposes		To Be Well Capitalized Under Prompt Corrective Action Provisions	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
Tier 1 Capital (to Risk-Weighted Assets)						
Consolidated	$ 1,590,111	12.39 %	$ 769,759	6.00 %	N/A	
Dubuque Bank and Trust Company	168,321	12.16	83,068	6.00	$ 110,758	8.00 %
Illinois Bank & Trust	126,869	12.02	63,350	6.00	84,466	8.00
Wisconsin Bank & Trust	114,825	13.22	52,124	6.00	69,499	8.00
New Mexico Bank & Trust	198,728	11.23	106,147	6.00	141,530	8.00
Arizona Bank & Trust	147,098	11.78	74,915	6.00	99,886	8.00
Rocky Mountain Bank	59,159	12.02	29,538	6.00	39,385	8.00
Citywide Banks	244,722	13.89	105,749	6.00	140,999	8.00
Minnesota Bank & Trust	81,637	13.84	35,396	6.00	47,194	8.00
Bank of Blue Valley	150,305	15.66	57,589	6.00	76,785	8.00
Premier Valley Bank	104,336	11.97	52,290	6.00	69,720	8.00
First Bank & Trust	263,096	14.43	109,367	6.00	145,823	8.00
Common Equity Tier 1 (to Risk Weighted Assets)						
Consolidated	$ 1,479,406	11.53 %	$ 577,319	4.50 %	N/A	
Dubuque Bank and Trust Company	168,321	12.16	62,301	4.50	$ 89,991	6.50 %
Illinois Bank & Trust	126,869	12.02	47,512	4.50	68,629	6.50
Wisconsin Bank & Trust	114,825	13.22	39,093	4.50	56,468	6.50
New Mexico Bank & Trust	198,728	11.23	79,611	4.50	114,993	6.50
Arizona Bank & Trust	147,098	11.78	56,186	4.50	81,158	6.50
Rocky Mountain Bank	59,159	12.02	22,154	4.50	32,000	6.50
Citywide Banks	244,722	13.89	79,312	4.50	114,561	6.50
Minnesota Bank & Trust	81,637	13.84	26,547	4.50	38,346	6.50
Bank of Blue Valley	150,305	15.66	43,192	4.50	62,388	6.50
Premier Valley Bank	104,336	11.97	39,218	4.50	56,648	6.50
First Bank & Trust	263,096	11.43	82,025	4.50	118,481	6.50
Tier 1 Capital (to Average Assets)						
Consolidated	$ 1,590,111	8.57 %	$ 742,155	4.00 %	N/A	
Dubuque Bank and Trust Company	168,321	8.02	83,982	4.00	$ 104,978	5.00 %
Illinois Bank & Trust	126,869	7.55	67,212	4.00	84,016	5.00
Wisconsin Bank & Trust	114,825	9.66	47,551	4.00	59,439	5.00
New Mexico Bank & Trust	198,728	7.78	102,173	4.00	127,716	5.00
Arizona Bank & Trust	147,098	7.99	73,605	4.00	92,006	5.00
Rocky Mountain Bank	59,159	8.27	28,614	4.00	35,767	5.00
Citywide Banks	244,722	9.54	102,587	4.00	128,233	5.00
Minnesota Bank & Trust	81,637	9.69	33,698	4.00	42,123	5.00
Bank of Blue Valley	150,305	10.75	55,921	4.00	69,901	5.00
Premier Valley Bank	104,336	9.22	45,256	4.00	56,570	5.00
First Bank & Trust	263,096	9.84	106,986	4.00	133,732	5.00

The ability of HTLF to pay dividends to its stockholders is dependent upon dividends paid by its subsidiaries. The HTLF banks are subject to certain statutory and regulatory restrictions on the amount they may pay in dividends. To maintain acceptable capital ratios for the Banks, certain portions of their retained earnings are not available for the payment of dividends. Retained earnings that could be available for the payment of dividends to HTLF totaled approximately $702.2 million as of December 31, 2022, under the most restrictive minimum capital requirements. Retained earnings that could be available for the payment of dividends to HTLF totaled approximately $403.9 million as of December 31, 2022, under the capital requirements to remain well capitalized.

NINETEEN
FAIR VALUE

HTLF utilizes fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures. Securities carried at fair value, which include available for sale, trading securities and equity securities with a readily determinable fair value, and derivatives are recorded in the consolidated balance sheets at fair value on a recurring basis. Additionally, from time to time, HTLF may be required to record at fair value other assets on a nonrecurring basis such as loans held for sale, loans held to maturity and certain other assets including, but not limited to, mortgage servicing rights, commercial servicing rights and other real estate owned. These nonrecurring fair value adjustments typically involve application of lower of cost or fair value accounting or write-downs of individual assets.

Fair Value Hierarchy

Under ASC 820, assets and liabilities are grouped at fair value in three levels, based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value. These levels are:

Level 1 — Valuation is based upon quoted prices for identical instruments in active markets.

Level 2 — Valuation is based upon quoted prices for similar instruments in active markets, or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market.

Level 3 — Valuation is generated from model-based techniques that use at least one significant assumption not observable in the market. These unobservable assumptions reflect estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques. The following is a description of valuation methodologies used for assets and liabilities recorded at fair value on a recurring or non-recurring basis.

Assets

Securities Available for Sale and Held to Maturity
Securities available for sale are recorded at fair value on a recurring basis. Securities held to maturity are generally recorded at cost. Fair value measurement is based upon quoted prices, if available. If quoted prices are not available, fair values are measured using independent pricing models or other model-based valuation techniques such as the present value of future cash flows, adjusted for the security's credit rating, prepayment assumptions and other factors such as credit loss assumptions. Level 1 securities include those traded on an active exchange, such as the New York Stock Exchange, as well as U.S. Treasury securities. Level 2 securities include U.S. government and agency securities, mortgage and asset-backed securities and private collateralized mortgage obligations, municipal bonds, equity securities and corporate debt securities. On a quarterly basis, a secondary independent pricing service is used for the securities portfolio to validate the pricing from HTLF's primary pricing service.

Equity Securities with a Readily Determinable Fair Value
Equity securities with a readily determinable fair value generally include Community Reinvestment Act mutual funds and are classified as Level 2 due to the infrequent trading of these securities. The fair value is based on the price per share.

Loans Held for Sale
Loans held for sale are carried at the lower of cost or fair value on an aggregate basis. The fair value of loans held for sale is based on what secondary markets are currently offering for portfolios with similar characteristics. As such, HTLF classifies loans held for sale subjected to nonrecurring fair value adjustments as Level 2.

Loans Held to Maturity
HTLF does not record loans held to maturity at fair value on a recurring basis. However, from time to time, certain loans are considered collateral dependent and an allowance for credit losses is established. The fair value of individually assessed loans is measured using the fair value of the collateral. In accordance with ASC 820, individually assessed loans measured at fair value are classified as nonrecurring Level 3 in the fair value hierarchy.

Premises, Furniture and Equipment Held for Sale
HTLF values premises, furniture and equipment held for sale based on third-party appraisals less estimated disposal costs. HTLF considers third party appraisals, as well as independent fair value assessments from Realtors or persons involved in

selling bank premises, furniture and equipment, in determining the fair value of particular properties. Accordingly, the valuation of premises, furniture and equipment held for sale is subject to significant external and internal judgment. HTLF periodically reviews premises, furniture and equipment held for sale to determine if the fair value of the property, less disposal costs, has declined below its recorded book value and records any adjustments accordingly. Premises, furniture and equipment held for sale are classified as nonrecurring Level 3 in the fair value hierarchy.

Mortgage Servicing Rights

Mortgage servicing rights assets represent the value associated with servicing residential real estate loans that have been sold to outside investors with servicing retained. The fair value for servicing assets is determined through discounted cash flow analysis and utilizes discount rates, prepayment speeds and delinquency rate assumptions as inputs. All these assumptions require a significant degree of management estimation and judgment. Mortgage servicing rights are subject to impairment testing. The carrying values of these rights are reviewed quarterly for impairment based upon the calculation of fair value as performed by an outside third party. For purposes of measuring impairment, the rights are stratified into certain risk characteristics including note type and note term. If the valuation model reflects a value less than the carrying value, mortgage servicing rights are adjusted to fair value through a valuation allowance. HTLF classifies mortgage servicing rights as nonrecurring with Level 3 measurement inputs.

Commercial Servicing Rights

Commercial servicing rights assets represent the value associated with servicing commercial loans guaranteed by the Small Business Administration and United States Department of Agriculture that have been sold with servicing retained by HTLF. HTLF uses the amortization method (i.e., the lower of amortized cost or estimated fair value measured on a nonrecurring basis), not fair value measurement accounting, to determine the carrying value of its commercial servicing rights. The fair value for servicing assets is determined through market prices for comparable servicing contracts, when available, or through a valuation model that calculates the present value of estimated future net servicing income. Inputs utilized include discount rates, prepayment speeds and delinquency rate assumptions as inputs. All these assumptions require a significant degree of management estimation and judgment. Commercial servicing rights are subject to impairment testing, and the carrying values of these rights are reviewed quarterly for impairment based upon the calculation of fair value as performed by an outside third party. If the valuation model reflects a fair value less than the carrying value, commercial servicing rights are adjusted to fair value through a valuation allowance. HTLF classifies commercial servicing rights as nonrecurring with Level 3 measurement inputs.

Derivative Financial Instruments

HTLF's current interest rate risk strategy includes cash flow hedges and interest rate swaps. The valuation of these instruments is determined using widely accepted valuation techniques including discounted cash flow analysis on the expected cash flows of each derivative. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves and implied volatilities. To comply with the provisions of ASC 820, HTLF incorporates credit valuation adjustments to appropriately reflect both its own nonperformance risk and the respective counterparty's nonperformance risk in the fair value measurements. In adjusting the fair value of its derivative contracts for the effect of nonperformance risk, HTLF has considered the impact of netting any applicable credit enhancements, such as collateral postings, thresholds, mutual puts, and guarantees.

Although HTLF has determined that the majority of the inputs used to value its derivatives fall within Level 2 of the fair value hierarchy, the credit valuation adjustments associated with its derivatives utilize Level 3 inputs, such as estimates of current credit spreads to evaluate the likelihood of default by itself and its counterparties. However, as of December 31, 2022, and December 31, 2021, HTLF has assessed the significance of the impact of the credit valuation adjustments on the overall valuation of its derivative positions and has determined that the credit valuation adjustments are not significant to the overall valuation of its derivatives. As a result, HTLF has determined that its derivative valuations in their entirety are classified in Level 2 of the fair value hierarchy.

Interest Rate Lock Commitments

HTLF uses an internal valuation model that relies on internally developed inputs to estimate the fair value of its interest rate lock commitments which is based on unobservable inputs that reflect management's assumptions and specific information about each borrower. Interest rate lock commitments are classified in Level 3 of the fair value hierarchy.

Forward Commitments

The fair value of forward commitments is estimated using an internal valuation model, which includes current trade pricing for similar financial instruments in active markets that HTLF has the ability to access and are classified in Level 2 of the fair value hierarchy.

Other Real Estate Owned

Other real estate owned ("OREO") represents property acquired through foreclosures and settlements of loans. Property acquired is carried at the fair value of the property at the time of acquisition (representing the property's cost basis), plus any acquisition costs, or the estimated fair value of the property, less disposal costs. HTLF considers third party appraisals, as well as independent fair value assessments from realtors or persons involved in selling OREO, in determining the fair value of particular properties. Accordingly, the valuation of OREO is subject to significant external and internal judgment. HTLF periodically reviews OREO to determine if the fair value of the property, less disposal costs, has declined below its recorded book value and records any adjustments accordingly. OREO is classified as nonrecurring Level 3 of the fair value hierarchy.

The tables below present HTLF's assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2022, and December 31, 2021, in thousands, aggregated by the level in the fair value hierarchy within which those measurements fall:

	Total Fair Value	Level 1	Level 2	Level 3
December 31, 2022				
Assets				
Securities available for sale				
U.S. treasuries	$ 31,699	$ 31,699	$ —	$ —
U.S. agencies	43,135	—	43,135	—
Obligations of states and political subdivisions	879,437	—	879,437	—
Mortgage-backed securities - agency	1,772,105	—	1,772,105	—
Mortgage-backed securities - non-agency	2,181,876	—	2,181,876	—
Commercial mortgage-backed securities - agency	85,123	—	85,123	—
Commercial mortgage-backed securities - non-agency	659,459	—	659,459	—
Asset-backed securities	416,054	—	416,054	—
Corporate bonds	57,942	—	57,942	—
Equity securities with a readily determinable fair value	20,314	—	20,314	—
Derivative financial instruments(1)	46,293	—	46,293	—
Interest rate lock commitments	174	—	—	174
Forward commitments	47	—	47	—
Total assets at fair value	$ 6,193,658	$ 31,699	$ 6,161,785	$ 174
Liabilities				
Derivative financial instruments(2)	$ 46,226	$ —	$ 46,226	**$** —
Forward commitments	99	—	99	—
Total liabilities at fair value	$ 46,325	$ —	$ 46,325	$ —

(1) Includes interest rate swaps, fair value hedges, embedded derivatives, and back-to-back loan swaps.

(2) Includes back-to-back loan swaps and undesignated interest rate swaps.

	Total Fair Value		Level 1		Level 2		Level 3	
December 31, 2021								
Assets								
Securities available for sale								
U.S. treasuries	$	1,008	$	1,008	$	—	$	—
U.S. agencies		193,384		—		193,384		—
Obligations of states and political subdivisions		2,085,033		—		2,085,033		—
Mortgage-backed securities - agency		2,349,289		—		2,349,289		—
Mortgage-backed securities - non-agency		1,743,379		—		1,743,379		—
Commercial mortgage-backed securities - agency		123,912		—		123,912		—
Commercial mortgage-backed securities - non-agency		600,888		—		600,888		—
Asset-backed securities		409,653		—		409,653		—
Corporate bonds		3,040		—		3,040		—
Equity securities		20,788		—		20,788		—
Derivative financial instruments(1)		23,891		—		23,891		—
Interest rate lock commitments		1,306		—		—		1,306
Forward commitments		32		—		32		—
Total assets at fair value	$	7,555,603	$	1,008	$	7,553,289	$	1,306
Liabilities								
Derivative financial instruments(2)	$	25,099	$	—	$	25,099	$	—
Forward commitments		95		—		95		—
Total liabilities at fair value	$	25,194	$	—	$	25,194	$	—

(1) Includes embedded derivatives, back-to-back loan swaps and cash flow hedges.

(2) Includes cash flow hedges, fair value hedges, back-to-back loan swaps and free standing derivative instruments.

The tables below present HTLF's assets that are measured at fair value on a nonrecurring basis, in thousands:

	Fair Value Measurements at December 31, 2022									
	Total		Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)		(Gains)/ Losses	
Collateral dependent individually assessed loans:										
Commercial and industrial	$	12,042	$	—	$	—	$	12,042	$	4,186
Owner occupied commercial real estate		7,556		—		—		7,556		—
Non-owner occupied commercial real estate		11,371		—		—		11,371		—
Real estate construction		1,518		—		—		1,518		—
Agricultural and agricultural real estate		3,788		—		—		3,788		—
Residential real estate		1,607		—		—		1,607		—
Total collateral dependent individually assessed loans	$	37,882	$	—	$	—	$	37,882	$	4,186
Loans held for sale	$	5,277	$	—	$	5,277	$	—	$	(116)
Other real estate owned		8,401		—		—		8,401		180
Premises, furniture and equipment held for sale		6,851		—		—		6,851		1,562
Servicing rights		7,840		—		—		7,840		516

	Fair Value Measurements at December 31, 2021				
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	(Gains)/ Losses
Collateral dependent individually assessed loans:					
Commercial and industrial	$ 8,989	$ —	$ —	$ 8,989	$ 275
Owner occupied commercial real estate	8,447	—	—	8,447	—
Non-owner occupied commercial real estate	11,946	—	—	11,946	1,637
Real estate construction	—	—	—	—	—
Agricultural and agricultural real estate	11,404	—	—	11,404	372
Residential real estate	855	—	—	855	—
Total collateral dependent impaired loans	$ 41,641	$ —	$ —	$ 41,641	$ 2,284
Loans held for sale	$ 21,640	$ —	$ 21,640	$ —	$ (813)
Other real estate owned	1,927	—	—	1,927	686
Premises, furniture and equipment held for sale	10,828	—	—	10,828	241
Servicing rights	6,890	—	—	6,890	(1,088)

The following tables present additional quantitative information about assets measured at fair value on a recurring and nonrecurring basis and for which HTLF has utilized Level 3 inputs to determine fair value, in thousands:

	Fair Value at 12/31/22	Valuation Technique	Unobservable Input	Range (Weighted Average)
Interest rate lock commitments	$ 174	Discounted cash flows	Closing ratio	0 - 99% (88%)(1)
Premises, furniture and equipment held for sale	6,851	Modified appraised value	Third party appraisal	(2)
			Appraisal discount	0-10%(3)
Other real estate owned	8,401	Modified appraised value	Third party appraisal	(2)
			Appraisal discounts	0-10%(3)
Servicing rights	7,840	Discounted cash flows	Discount rate	9.98 - 11.72% (10.02%)(4)
			Constant prepayment rate	7.8 - 14.2% (7.9%)(4)
Collateral dependent individually assessed loans:				
Commercial and industrial	12,042	Modified appraised value	Third party appraisal	(2)
			Appraisal discount	0-10%(3)
Owner occupied commercial real estate	7,556	Modified appraised value	Third party appraisal	(2)
			Appraisal discount	0-10%(3)
Non-owner occupied commercial real estate	11,371	Modified appraised value	Third party appraisal	(2)
			Appraisal discount	0-10%(3)
Real estate construction	1,518	Modified appraised value	Third party appraisal	(2)
			Appraisal discount	0-10%(3)
Agricultural and agricultural real estate	3,788	Modified appraised value	Third party appraisal	(2)
			Appraisal discount	0%-15%(3)
Residential real estate	1,607	Modified appraised value	Third party appraisal	(2)
			Appraisal discount	0-10%(3)

(1) The significant unobservable input used in the fair value measurement is the closing ratio, which represents the percentage of loans currently in a lock position which management estimates will ultimately close. The closing ratio calculation takes into consideration historical data and loan-level data.

(2) Third party appraisals are obtained and updated at least annually to establish the value of the underlying asset, but the disclosure of the unobservable inputs used by the appraisers would not be meaningful because the range will vary widely from appraisal to appraisal.

(3) Discounts applied to the appraised values primarily include estimated sales costs, but also consider the age of the appraisal, changes in local market conditions and changes in the current condition of the collateral.

(4) The significant unobservable inputs used in the discounted cash flow analysis are the discount rate and constant prepayment rate.

	Fair Value at 12/31/21	Valuation Technique	Unobservable Input	Range (Weighted Average)
Interest rate lock commitments	$ 1,306	Discounted cash flows	Closing ratio	0 - 99% (88%)(1)
Premises, furniture and equipment held for sale	10,828	Modified appraised value	Third party appraisal	(2)
			Appraisal discount	0-10%(3)
Other real estate owned	1,927	Modified appraised value	Third party appraisal	(2)
			Appraisal discounts	0-10%(3)
Servicing rights	6,890	Discounted cash flows	Discount rate	9 - 11% (9.02%)(4)
			Constant prepayment rate	13.1 - 18.6% (13.4%)(4)
Collateral dependent individually assessed loans:				
Commercial and industrial	8,989	Modified appraised value	Third party appraisal	(2)
			Appraisal discount	0-6%(3)
Owner occupied commercial real estate	8,447	Modified appraised value	Third party appraisal	(2)
			Appraisal discounts	0-7%(3)
Non-owner occupied commercial real estate	11,946	Modified appraised value	Third party appraisal	(2)
			Appraisal discounts	0-10%(3)
Agricultural and agricultural real estate	11,404	Modified appraised value	Third party appraisal	(2)
			Appraisal discount	0-7%(3)
Residential real estate	855	Modified appraised value	Third party appraisal	(2)
			Appraisal discount	0-7%(5)

(1) The significant unobservable input used in the fair value measurement is the closing ratio, which represents the percentage of loans currently in a lock position which management estimates will ultimately close. The closing ratio calculation takes into consideration historical data and loan-level data.

(2) Third party appraisals are obtained and updated at least annually to establish the value of the underlying asset, but the disclosure of the unobservable inputs used by the appraisers would not be meaningful because the range will vary widely from appraisal to appraisal.

(3) Discounts applied to the appraised values primarily include estimated sales costs, but also consider the age of the appraisal, changes in local market conditions and changes in the current condition of the collateral.

(4) The significant unobservable inputs used in the discounted cash flow analysis are the discount rate and constant prepayment rate.

The changes in fair value of the interest rate lock commitments, which are Level 3 financial instruments and are measured on a recurring basis, are summarized in the following table, in thousands:

	For the Years Ended	
	December 31, 2022	December 31, 2021
Balance at January 1,	$ 1,306	$ 1,827
Total gains (losses), net, included in earnings	(1,828)	(2,345)
Issuances	3,683	15,403
Settlements	(2,987)	(13,579)
Balance at period end,	$ 174	$ 1,306

Gains included in net gains on sale of loans held for sale attributable to interest rate lock commitments held at December 31, 2022, and December 31, 2021, were $174,000 and $1.3 million, respectively.

The table below is a summary of the estimated fair value of HTLF's financial instruments (as defined by ASC 825) as of December 31, 2022, and December 31, 2021, in thousands. The carrying amounts in the following table are recorded in the consolidated balance sheets under the indicated captions. In accordance with ASC 825, the assets and liabilities that are not financial instruments are not included in the disclosure, including the value of the commercial and mortgage servicing rights, premises, furniture and equipment, premises, furniture and equipment held for sale, OREO, goodwill, other intangibles and other liabilities.

HTLF does not believe that the estimated information presented below is representative of the earnings power or value of HTLF. The following analysis, which is inherently limited in depicting fair value, also does not consider any value associated with either existing customer relationships or the ability of HTLF to create value through loan origination, obtaining deposits or fee generating activities. Many of the estimates presented below are based upon the use of highly subjective information and assumptions and, accordingly, the results may not be precise. Management believes that fair value estimates may not be comparable between financial institutions due to the wide range of permitted valuation techniques and numerous estimates which must be made. Furthermore, because the disclosed fair value amounts were estimated as of the balance sheet date, the amounts actually realized or paid upon maturity or settlement of the various financial instruments could be significantly different.

			Fair Value Measurements at December 31, 2022		
	Carrying Amount	Estimated Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Financial assets:					
Cash and cash equivalents	$ 363,087	$ 363,087	$ 363,087	$ —	$ —
Time deposits in other financial institutions	1,740	1,740	1,740	—	—
Securities:					
Carried at fair value	6,147,144	6,147,144	31,699	6,115,445	—
Held to maturity	829,403	776,557	—	776,557	—
Other investments	74,567	74,567	—	74,567	—
Loans held for sale	5,277	5,277	—	5,277	—
Loans, net:					
Commercial	3,435,343	3,270,127	—	3,258,085	12,042
PPP	11,025	11,025	—	11,025	—
Owner occupied commercial real estate	2,251,359	2,084,665	—	2,077,109	7,556
Non-owner occupied commercial real estate	2,314,401	2,184,796	—	2,173,425	11,371
Real estate construction	1,046,084	1,039,244	—	1,037,726	1,518
Agricultural and agricultural real estate	917,876	842,637	—	838,849	3,788
Residential real estate	845,650	741,325	—	739,718	1,607
Consumer	497,131	480,018	—	480,018	—
Total Loans, net	11,318,869	10,653,837	—	10,615,955	37,882
Cash surrender value on life insurance	193,403	193,403	—	193,403	—
Derivative financial instruments[(1)]	46,293	46,293	—	46,293	—
Interest rate lock commitments	174	174	—	—	174
Forward commitments	47	47	—	47	—

			Fair Value Measurements at December 31, 2022		
	Carrying Amount	Estimated Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Financial liabilities:					
Deposits					
Demand deposits	$5,701,340	$5,701,340	$ —	$ 5,701,340	$ —
Savings deposits	9,994,391	9,994,391	—	9,994,391	—
Time deposits	1,817,278	1,817,278	—	1,817,278	—
Short term borrowings	376,117	376,117	—	376,117	—
Other borrowings	371,753	372,473	—	372,473	—
Derivative financial instruments(2)	46,226	46,226	—	46,226	—
Forward commitments	99	99	—	99	—

(1) Includes interest rate swaps, fair value hedges, embedded derivatives, and back-to-back loan swaps.

(2) Includes back-to-back loan swaps and undesignated interest rate swaps.

			Fair Value Measurements at December 31, 2021		
	Carrying Amount	Estimated Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Financial assets:					
Cash and cash equivalents	$ 435,599	$ 435,599	$ 435,599	$ —	$ —
Time deposits in other financial institutions	2,894	2,894	2,894	—	—
Securities:					
Carried at fair value	7,530,374	7,530,374	1,008	7,529,366	—
Held to maturity	84,709	94,139	—	94,139	—
Other investments	82,567	82,567	—	82,567	—
Loans held for sale	21,640	21,640	—	21,640	—
Loans, net:					
Commercial and industrial	2,617,347	2,603,001	—	2,594,012	8,989
PPP	199,883	199,883	—	199,883	—
Owner occupied commercial real estate	2,221,120	2,222,030	—	2,213,583	8,447
Non-owner occupied commercial real estate	1,992,683	1,998,161	—	1,986,215	11,946
Real estate construction	833,581	844,578	—	844,578	—
Agricultural and agricultural real estate	748,540	749,238	—	737,834	11,404
Residential real estate	820,856	819,178	—	818,323	855
Consumer	410,474	415,487	—	415,487	—
Total Loans, net	9,844,484	9,851,556	—	9,809,915	41,641

			Fair Value Measurements at December 31, 2021		
	Carrying Amount	Estimated Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Financial assets					
Cash surrender value on life insurance	$ 191,722	$ 191,722	$ —	$ 191,722	$ —
Derivative financial instruments(1)	23,891	23,891	—	23,891	—
Interest rate lock commitments	1,306	1,306	—	—	1,306
Forward commitments	32	32	—	32	—
Financial liabilities:					
Deposits					
Demand deposits	6,495,326	6,495,326	—	6,495,326	—
Savings deposits	8,897,909	8,897,909	—	8,897,909	—
Time deposits	1,024,020	1,024,020	—	1,024,020	—
Short term borrowings	131,597	131,597	—	131,597	—
Other borrowings	372,072	373,194	—	373,194	—
Derivative financial instruments(2)	25,099	25,099	—	25,099	—
Forward commitments	95	95	—	95	—

(1) Includes embedded derivatives, back-to-back loan swaps and cash flow hedges.

(2) Includes cash flow hedges, fair value hedges, back-to-back loan swaps and free standing derivative instruments.

Cash and Cash Equivalents — The carrying amount is a reasonable estimate of fair value due to the short-term nature of these instruments.

Time Deposits in Other Financial Institutions — The carrying amount is a reasonable estimate of the fair value due to the short-term nature of these instruments.

Securities — For equity securities with a readily determinable fair value and debt securities either held to maturity, available for sale or trading, fair value equals quoted market price if available. If a quoted market price is not available, fair value is estimated using quoted market prices for similar securities. For Level 3 securities, HTLF utilizes independent pricing provided by third-party vendors or brokers.

Other Investments — Fair value measurement of other investments, which consists primarily of FHLB stock, are based on their redeemable value, which is at cost. The market for these securities is restricted to the issuer of the stock and subject to impairment evaluation.

Loans — The fair value of loans were determined using an exit price methodology. The exit price estimation of fair value is based on the present value of the expected cash flows. The projected cash flows are based on the contractual terms of the loans, adjusted for prepayments and a discount rate based on the relative risk of the cash flows. Other considerations include the loan type, remaining life of the loan and credit risk.

The fair value of individually assessed or impaired loans is measured using the fair value of the underlying collateral. The fair value of loans held for sale is estimated using quoted market prices or sales contracts.

Cash surrender value on life insurance — Life insurance policies are held on certain officers. The carrying value of these policies approximates fair value as it is based on the cash surrender value adjusted for other charges or amounts due that are probable at settlement. As such, HTLF classifies the estimated fair value of the cash surrender value on life insurance as Level 2.

Derivative Financial Instruments — The fair value of all derivatives is estimated based on the amount that HTLF would pay or would be paid to terminate the contract or agreement, using current rates, and when appropriate, the current creditworthiness of the counter-party.

Interest Rate Lock Commitments — The fair value of interest rate lock commitments is estimated using an internal valuation model, which includes grouping the interest rate lock commitments by interest rate and terms, applying an estimated closing ratio based on historical experience, and then multiplying by quoted investor prices determined to be reasonably applicable to the loan commitment groups based on interest rate, terms, and rate lock expiration dates of the loan commitment group.

Forward Commitments — The fair value of these instruments is estimated using an internal valuation model, which includes current trade pricing for similar financial instruments.

Deposits — The fair value of demand deposits, savings accounts and certain money market deposits is the amount payable on demand at the reporting date. The fair value of fixed maturity certificates of deposit is estimated using the rates currently offered for deposits of similar remaining maturities. If the fair value of the fixed maturity certificates of deposit is calculated at less than the carrying amount, the carrying value of these deposits is reported as the fair value.

Short-term and Other Borrowings — Rates currently available to HTLF for debt with similar terms and remaining maturities are used to estimate fair value of existing debt.

Commitments to Extend Credit, Unused Lines of Credit and Standby Letters of Credit — Based upon management's analysis of the off balance sheet financial instruments, there are no significant unrealized gains or losses associated with these financial instruments based upon review of the fees currently charged to enter into similar agreements, taking into account the remaining terms of the agreements and the present creditworthiness of the counterparties.

TWENTY
REVENUE

ASC 606, Revenue from Contracts with Customers, requires revenue to be recognized at an amount that reflects the consideration to which HTLF expects to be entitled in exchange for transferring goods or services to a customer. ASC 606 applies to all contracts with customers to provide goods or services in the ordinary course of business, except for contracts that are specifically excluded from its scope. The majority of HTLF's revenue streams including interest income, loan servicing income, net securities gain and losses, net unrealized gains and losses on equity securities, net gains on sale of loans held for sale, valuation adjustment on servicing rights, income from bank owned life insurance and other noninterest income are outside the scope of ASC 606. Revenue streams including service charges and fees, interchange fees on credit and debit cards, trust fees and brokerage and insurance commissions are within the scope of ASC 606.

Service Charges and Fees
Service charges and fees consist of revenue generated from deposit account related service charges and fees, overdraft fees, customer service fees and other service charges, credit card fee income, debit card income and other service charges and fees.

Service charges on deposit accounts consist of account analysis fees (i.e., net fees earned on analyzed business and public checking accounts), monthly service fees, check orders and other deposit account related fees. HTLF's performance obligation for account analysis fees and monthly service fees is generally satisfied, and the related revenue recognized, over the period in which the service is provided. Check orders and other deposit account related fees, including overdraft fees, are largely transaction based, and therefore, the performance obligation is satisfied, and related revenue recognized, at a point in time. Payment for service charges on deposit accounts is primarily received immediately or in the following month through a direct charge to customers' accounts.

Customer service fees and other service charges include revenue from processing wire transfers, bill pay service, cashier's checks, and other services. HTLF's performance obligation for fees, exchange, and other service charges are largely satisfied, and related revenue recognized, when the services are rendered or upon completion. Payment is typically received immediately or in the following month.

Credit card fee income and debit card income are comprised of interchange fees, ATM fees, and merchant services income. Credit card fee income and debit card income are earned whenever the Banks' debit and credit cards are processed through card payment networks such as Visa. ATM fees are primarily generated when a Bank cardholder uses an ATM that is not owned by one of HTLF's Banks or a non-bank cardholder uses HTLF-owned ATM. Merchant services income mainly represents fees charged to merchants to process their debit and credit card transactions, in addition to account management fees.

Trust Fees
Trust fees are primarily comprised of fees earned from the management and administration of trusts and other customer assets. HTLF's performance obligation is generally satisfied over time and the resulting fees are recognized monthly, based upon the average daily market value or month-end market value of the assets under management and the applicable fee rate. Payment is generally received a few days before or after month end through a direct charge to customers' accounts. HTLF does not earn performance-based incentives. Optional services such as real estate sales and tax return preparation services are also available to existing trust and asset management customers. HTLF's performance obligation for these transactional-based services is generally satisfied, and related revenue recognized, at a point in time (i.e., as incurred). Payment is received shortly after services are rendered.

Brokerage and Insurance Commissions
Brokerage commission primarily consist of commissions related to broker-dealer contracts. The contracts are between the customer and the broker-dealer, and HTLF satisfies its performance obligation and earns commission when the transactions are completed. The recognition of revenue is based on a defined fee schedule and does not require significant judgment. Payment is received shortly after services are rendered. Insurance commissions are related to commissions received directly from the insurance carrier. HTLF acts as an insurance agent between the customer and the insurance carrier. HTLF's performance obligations and associated fee and commission income are defined with each insurance product with the insurance company. When insurance payments are received from customers, a portion of the payment is recognized as commission revenue.

The following presents noninterest income, segregated by revenue streams in-scope and out-of-scope of Topic 606, for the year ended December 31, 2022, 2021, and 2020, in thousands:

	For the Years Ended December 31,		
	2022	**2021**	**2020**
In-scope of Topic 606			
Service charges and fees			
Service charges and fees on deposit accounts	$ 18,625	$ 16,414	$ 14,441
Overdraft fees	12,136	11,005	9,166
Customer service and other service fees	375	220	177
Credit card fee income	27,560	21,623	16,026
Debit card income	9,335	10,441	7,657
Total service charges and fees	68,031	59,703	47,467
Trust fees	22,570	24,417	20,862
Brokerage and insurance commissions	2,986	3,546	2,756
Total noninterest income in-scope of Topic 606	$ 93,587	$ 87,666	$ 71,085
Out-of-scope of Topic 606			
Loan servicing income	$ 2,741	$ 3,276	$ 2,977
Securities gains (losses), net	(425)	5,910	7,793
Unrealized gain (loss) on equity securities, net	(622)	58	640
Net gains on sale of loans held for sale	9,032	20,605	28,515
Valuation adjustment on servicing rights	1,658	1,088	(1,778)
Income on bank owned life insurance	2,341	3,762	3,554
Other noninterest income	19,952	6,570	7,505
Total noninterest income out-of-scope of Topic 606	34,677	41,269	49,206
Total noninterest income	$ 128,264	$ 128,935	$ 120,291

Contract Balances
HTLF does not typically enter into long-term revenue contracts with customers, and therefore, does not experience significant contract balances. As of December 31, 2022, 2021, and 2020, HTLF did not have any significant contract balances or capitalized contract acquisition costs.

TWENTY-ONE
PARENT COMPANY ONLY FINANCIAL INFORMATION

Condensed financial information for Heartland Financial USA, Inc. is as follows:

BALANCE SHEETS (Dollars in thousands)

	December 31,	
	2022	**2021**
Assets:		
Cash and interest bearing deposits	$ 307,026	$ 259,830
Investment in subsidiaries	1,747,188	2,263,037
Other assets	94,953	81,020
Total assets	$ 2,149,167	$ 2,603,887
Liabilities and Stockholders' equity:		
Other borrowings	$ 370,930	$ 369,581
Accrued expenses and other liabilities	43,182	52,128
Total liabilities	414,112	421,709
Stockholders' equity:		
Preferred stock	110,705	110,705
Common stock	42,467	42,275
Capital surplus	1,080,964	1,071,956
Retained earnings	1,120,925	962,994
Accumulated other comprehensive loss	(620,006)	(5,752)
Total stockholders' equity	1,735,055	2,182,178
Total liabilities and stockholders' equity	$ 2,149,167	$ 2,603,887

INCOME STATEMENTS (Dollars in thousands)

	For the Years Ended December 31,		
	2022	**2021**	**2020**
Operating revenues:			
Dividends from subsidiaries	$ 142,500	$ 163,500	$ 83,000
Other	1,200	1,885	1,948
Total operating revenues	143,700	165,385	84,948
Operating expenses:			
Interest	16,886	12,851	13,573
Salaries and employee benefits	7,225	7,509	8,147
Professional fees	11,594	5,161	4,310
Other operating expenses	10,474	10,984	4,939
Total operating expenses	46,179	36,505	30,969
Equity in undistributed earnings	98,983	75,368	73,430
Income before income tax benefit	196,504	204,248	127,409
Income tax benefit	15,676	15,675	10,529
Net income	212,180	219,923	137,938
Preferred dividends	(8,050)	(8,050)	(4,451)
Net income available to common stockholders	$ 204,130	$ 211,873	$ 133,487

STATEMENTS OF CASH FLOWS (Dollars in thousands)

	For the Years Ended December 31,		
	2022	**2021**	**2020**
Cash flows from operating activities:			
Net income	$ 212,180	$ 219,923	$ 137,938
Adjustments to reconcile net income to net cash provided by operating activities:			
Undistributed earnings of subsidiaries	(98,983)	(75,368)	(73,430)
Increase (decrease) in accrued expenses and other liabilities	(8,946)	8,723	8,419
Increase in other assets	(13,933)	(13,069)	(19,168)
Excess tax (expense) benefit from stock based compensation	131	312	(93)
Other, net	9,958	12,632	6,375
Net cash provided by operating activities	100,407	153,153	60,041
Cash flows from investing activities:			
Capital contributions to subsidiaries	—	(34,000)	(70,000)
Net assets acquired	—	—	(41,982)
Net cash used by investing activities	—	(34,000)	(111,982)
Cash flows from financing activities:			
Proceeds from borrowings	—	147,614	—
Repayments of borrowings	—	(44,417)	(7,000)
Cash dividends paid	(54,249)	(48,559)	(31,906)
Proceeds from issuance of preferred stock	—	—	110,705
Proceeds from issuance of common stock	1,038	1,311	3,004
Net cash provided by (used in) by financing activities	(53,211)	55,949	74,803
Net increase in cash and cash equivalents	47,196	175,102	22,862
Cash and cash equivalents at beginning of year	259,830	84,728	61,866
Cash and cash equivalents at end of year	$ 307,026	$ 259,830	$ 84,728
Supplemental disclosure:			
Cumulative effect adjustment from the adoption of ASU 2016-13 on January 1, 2020	$ —	$ —	$ 14,891
Dividends declared, not paid	2,013	2,013	2,013
Stock consideration granted for acquisitions	—	—	217,202

TWENTY-TWO
LEASES

HTLF, as lessee, leases certain assets for use in its operations. Leased assets primarily include real estate property for retail branches, ATM locations and operations centers with terms extending through 2031. All HTLF's leases are classified as operating leases. HTLF excludes leases with an original term of twelve months or less and equipment leases (deemed immaterial) on the consolidated balance sheets.

The table below presents HTLF's right-of-use ("ROU") assets and lease liabilities as of December 31, 2022 and December 31, 2021, in thousands:

		As of December 31,	
	Classification	**2022**	**2021**
Operating lease right-of-use assets	Other assets	$ 29,429	$ 22,630
Operating lease liabilities	Accrued expenses and other liabilities	$ 31,681	$ 26,125

The calculated amount of the ROU assets and lease liabilities in the table above are impacted by the length of the lease term and the discount rate used to present value the minimum lease payments. HTLF’s lease agreements often include one or more options to renew at HTLF’s discretion. If at lease inception, HTLF considers the exercising of a renewal option to be reasonably certain, HTLF will include the extended term in the calculation of the ROU asset and lease liability. HTLF utilizes its incremental borrowing rate at lease inception, on a collateralized basis, over a similar term. The variable lease cost primarily represents variable payments such as common area maintenance and utilities.

The table below presents the lease costs and supplemental information as of December 31, 2022, 2021 and 2020, in thousands:

		As of December 31,		
Lease Cost	**Income Statement Category**	**2022**	**2021**	**2020**
Operating lease cost	Occupancy expense	$ 7,256	$ 8,013	$ 6,071
Variable lease cost	Occupancy expense	16	47	72
Total lease cost		$ 7,272	$ 8,060	$ 6,143
Supplemental Information				
Noncash reduction of ROU assets	Occupancy expense	$ 32	$ 1,244	$ 1,037
Noncash reduction lease liabilities	Occupancy expense	10	—	389

Supplemental balance sheet information	**As of December 31, 2022**
Weighted-average remaining operating lease term (in years)	6.19
Weighted-average discount rate for operating leases	2.37 %

Included in the noncash reduction of ROU assets in 2022 and 2021 are expenses related to lease modifications and ROU acceleration related to lease abandonments.

HTLF recorded $360,000 of impairment on two leases in 2022, which was recorded in gain (loss) on sales/valuations of assets, net. HTLF did not record any impairment on leases in 2021, and $360,000 of impairment on one lease in 2020.

A maturity analysis of operating lease liabilities and reconciliation of the undiscounted cash flows to the total of operating lease liabilities as of December 31, 2022 is as follows, in thousands:

Year ending December 31,	
2023	$ 6,205
2024	5,712
2025	5,599
2026	4,938
2027	4,005
Thereafter	7,591
Total lease payments	$ 34,050
Less interest	(2,369)
Present value of lease liabilities	$ 31,681

TWENTY-THREE
SUMMARY OF QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

(Dollars in thousands, except per share data)

2022	**As of and for the Quarter Ended** December 31	September 30	June 30	March 31
Net interest income	$ 165,220	$ 155,876	$ 142,461	$ 134,679
Provision for credit losses	3,387	5,492	3,246	3,245
Net interest income after provision for credit losses	161,833	150,384	139,215	131,434
Noninterest income	29,975	29,181	34,539	34,569
Noninterest expense	117,218	108,883	106,479	110,797
Income taxes	13,936	14,118	15,402	12,117
Net income	60,654	56,564	51,873	43,089
Preferred dividends	(2,012)	(2,013)	(2,012)	(2,013)
Net income available to common stockholders	$ 58,642	$ 54,551	$ 49,861	$ 41,076
Per share:				
Earnings per share-basic	$ 1.38	$ 1.28	$ 1.17	$ 0.97
Earnings per share-diluted	1.37	1.28	1.17	0.97
Cash dividends declared on common stock	0.28	0.27	0.27	0.27
Book value per common share	38.25	36.41	39.19	42.98
Weighted average common shares outstanding	42,578,977	42,574,557	42,474,835	42,359,582
Weighted average diluted common shares outstanding	42,699,752	42,643,940	42,565,391	42,540,953

(Dollars in thousands, except per share data)

2021	**As of and for the Quarter Ended** December 31	September 30	June 30	March 31
Net interest income	$ 137,194	$ 142,543	$ 141,218	$ 139,605
Provision (benefit) for credit losses	(5,313)	(4,534)	(7,080)	(648)
Net interest income after provision for credit losses	142,507	147,077	148,298	140,253
Noninterest income	32,730	32,724	33,164	30,317
Noninterest expense	115,386	110,627	103,376	102,423
Income taxes	10,271	13,250	16,481	15,333
Net income	49,580	55,924	61,605	52,814
Preferred dividends	(2,012)	(2,013)	(2,012)	(2,013)
Net income available to common stockholders	$ 47,568	$ 53,911	$ 59,593	$ 50,801
Per share:				
Earnings per share-basic	$ 1.12	$ 1.27	$ 1.41	$ 1.20
Earnings per share-diluted	1.12	1.27	1.41	1.20
Cash dividends declared on common stock	0.27	0.25	0.22	0.22
Book value per common share	49.00	48.79	48.50	46.13
Weighted average common shares outstanding	42,309,003	42,302,780	42,242,893	42,174,092
Weighted average diluted common shares outstanding	42,479,442	42,415,993	42,359,873	42,335,747

KPMG LLP
2500 Ruan Center
666 Grand Avenue
Des Moines, IA 50309

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Heartland Financial USA, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Heartland Financial USA, Inc. and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

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, 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 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these 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 audit 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 included 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 Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates 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 a critical audit matter 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 matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Assessment of the allowance for credit losses for loans and unfunded loan commitments collectively evaluated

As discussed in Notes 1, 4, and 5 to the consolidated financial statements, the Company's allowance for credit losses related to loans and unfunded loan commitments collectively evaluated for credit losses is comprised of an allowance for credit losses on loans and an allowance for credit losses on unfunded loan commitments (the collective ACL). As of December 31, 2022, the total allowance for credit losses related to loans and unfunded loan commitments was $109.5 million and $20.2 million, respectively, of which $102.4 million and $20.2 million, respectively, was related to the collective ACL. The Company estimates the collective ACL using a current expected credit losses methodology which is based on relevant information about past events, current conditions, and a reasonable and supportable forecast that affect the collectability of the reported loan and commitment amounts, including expected defaults and prepayments. The allowance for credit losses on unfunded commitments leverages the same methodology utilized for the allowance for credit losses for loans. The Company estimates the collective ACL on a pool basis for loans and commitments with similar risk characteristics using 1) a transition matrix model derived probability of default (PD) and loss given default (LGD) methodology, which is based on transition of loans between risk ratings and through default based on the Company's historical loss experience, for certain commercial and agricultural loans, or 2) a lifetime average historical loss model for all other commercial and agricultural loans, residential real estate loans, consumer loans, and commitments. A portion of the collective ACL on outstanding loans and commitments is comprised of qualitative adjustments, based on a comparison of current conditions to the average conditions over the look back period. The qualitative adjustments are determined by the Company using an anchoring approach to determine the minimum and maximum amount of qualitative allowance, which is determined by comparing the highest and lowest historical lifetime average loss rate to the current quantitative allowance rate to calculate the rate for the adjustment. The collective ACL utilizes an overlay approach for its economic forecasting component which incorporates a reasonable and supportable forecast of various macro-economic indices. The Company utilizes an economic forecast scenario which reverts to the historical mean immediately at the end of the reasonable and supportable forecast period. For the allowance for credit losses on unfunded loan commitments, the Company separately estimates the exposure at default using estimated average utilization rates.

We identified the assessment of the collective ACL as a critical audit matter. A high degree of audit effort, including specialized skills and knowledge, and subjective and complex auditor judgment was involved in the assessment of the collective ACL estimate. Specifically, the assessment encompassed the evaluation of the collective ACL methodology, including the methods and models used to estimate (1) the PD and LGD and the related assumption of the risk ratings for certain commercial and agricultural loans, (2) the lifetime average historical loss rates, and (3) the method used to estimate the economic forecasting component of the qualitative component and determination of that component, certain assumptions related to the qualitative component including the reasonable supportable forecast period, anchoring, and weighting. The assessment also included an evaluation of the conceptual soundness and performance of the PD and LGD model and lifetime average historical loss model. In addition, auditor judgment was required to evaluate the sufficiency of audit evidence obtained.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's measurement of the collective ACL estimates, including controls over the:

- development and approval of the collective ACL methodology
- continued use of the PD and LGD model and lifetime average historical loss model
- identification and determination of the assumptions used in the PD and LGD model

- identification and determination of the assumptions used in the lifetime average historical loss model

- development of the qualitative adjustments, including the method used to estimate the economic forecasting component overlay, and related assumptions including the anchoring and weighting approaches, and the reasonable and supportable forecast period

- analysis of the collective ACL results, trends and ratios.

We evaluated the Company's process to develop the collective ACL estimate by testing certain sources of data, factors, and assumptions that the Company used, and considered the relevance and reliability of such data, factors, and assumptions. In addition, we involved credit risk professionals with specialized skills and knowledge, who assisted in evaluating:

- the Company's collective ACL methodology for compliance with U.S. generally accepted accounting principles

- judgments made by the Company relative to the continued use of the PD and LGD model and lifetime average historical loss model, by comparing them to relevant Company-specific metrics and trends and applicable industry and regulatory practices

- the conceptual soundness of the PD and LGD model and lifetime average historical loss model by inspecting the model documentation to determine whether the models are suitable for their intended use

- the length of the look back period by comparing it to Company specific portfolio risk characteristics and trends

- the methodology used to develop the qualitative adjustments including the economic forecasting component, the assumptions used in the adjustments including reasonable and supportable forecast period, anchoring, and weighting, and the effect of those adjustments on the collective ACL estimate compared with relevant credit risk factors and consistency with credit trends and identified limitations of the underlying quantitative models

- individual risk ratings for a selection of commercial and agricultural loan relationships by evaluating the financial performance of the borrower, sources of repayment, and any relevant guarantees or underlying collateral.

We also assessed the sufficiency of the audit evidence obtained related to the collective ACL estimates by evaluating the:

- cumulative results of the audit procedures

- qualitative aspects of the Company's accounting practices

- potential bias in the accounting estimates.

/s/ KPMG LLP

We have served as the Company's auditor since 1994.

Des Moines, Iowa
February 23, 2023

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Under the direction of our Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) promulgated under the Securities and Exchange Act of 1934, as amended) as of December 31, 2022. Based on that evaluation, our management, including the Chief Executive Officer and Chief Financial Officer, concluded that our disclosure controls and procedures were effective in ensuring that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in applicable rules and forms and that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, in a manner that allows timely decisions regarding required disclosure.

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining effective internal control over financial reporting. Our internal control system was designed to provide reasonable assurance to our management, board of directors and stockholders regarding the reliability of financial reporting and the preparation and fair presentation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our internal control over financial reporting based upon the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control - Integrated Framework (2013)*. Based on our assessment, our internal control over financial reporting was effective as of December 31, 2022.

KPMG LLP, the independent registered public accounting firm that audited HTLF's consolidated financial statements as of and for the year ended December 31, 2022, included herein, has issued a report on HTLF's internal control over financial reporting. This report follows management's report.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no significant changes to HTLF's disclosure controls or internal controls over financial reporting during the quarter ended December 31, 2022, that have materially affected or are reasonably likely to materially affect HTLF's internal control over financial reporting.

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Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Heartland Financial USA, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited Heartland Financial USA, Inc. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes (collectively, the consolidated financial statements), and our report dated February 23, 2023 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 Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting 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.

Definition 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 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/ KPMG LLP

Des Moines, Iowa
February 23, 2023

ITEM 9B. OTHER INFORMATION

None

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not Applicable

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information in the Proxy Statement for HTLF's 2023 Annual Meeting of Stockholders to be held on June 14, 2023, (the "2023 Proxy Statement") under the captions "Proposal 1-Election of Directors", "Delinquent Section 16(a) Reports," "Corporate Governance and the Board of Directors - Stockholder Communications with the Board, Nomination and Proposal Procedures," "Corporate Governance and the Board of Directors - Committees of the Board," and "Corporate Governance and the Board of Directors - Code of Business Conduct and Ethics" is incorporated by reference. The information regarding executive officers is included in Part I of this report.

ITEM 11. EXECUTIVE COMPENSATION

The information in our 2023 Proxy Statement, under the captions "Corporate Governance and the Board of Directors - Director Compensation" and "Executive Officer Compensation" is incorporated by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information in our 2023 Proxy Statement, under the caption "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" is incorporated by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information in the 2023 Proxy Statement under the captions "Related Person Transactions" and "Corporate Governance and the Board of Directors - Our Board of Directors - Director Independence" is incorporated by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Our independent registered public accounting firm is KPMG, LLP, Des Moines, IA., Auditor Firm ID: 185.

The information in the 2023 Proxy Statement under the caption "Relationship with Independent Registered Public Accounting Firm" is incorporated by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The documents filed as a part of this Annual Report on Form 10-K are listed below:

1. Financial Statements

   The consolidated financial statements of Heartland Financial USA, Inc. are included in Item 8 of this Annual Report on Form 10-K.

2. Financial Statement Schedules

   None.

3. Exhibits

   The exhibits required by Item 601 of Regulation S-K are included along with this Annual Report on Form 10-K and are listed on the "Index of Exhibits" immediately following Item 16 below.

ITEM 16. FORM 10-K SUMMARY

None.

INDEX OF EXHIBITS

2.1	Amended and Restated Agreement and Plan of Merger dated as of October 19, 2020 among Heartland Financial USA, Inc., First Bank & Trust, AIM Bancshares, Inc., AimBank and Michael F. Epps, as the Shareholder Representative (incorporated by reference to Appendix B to the Proxy Statement/Prospectus contained in Amendment No. 1 to Heartland's Registration Statement on Form S-4 (Registration No. 333-238459)) filed on October 19, 2020.
3.1	Restated Certificate of Incorporation of Heartland Financial USA, Inc. and Certificate of Designation of Series A Junior Participating Preferred Stock as filed with the Delaware Secretary of State on June 10, 2002 (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on November 8, 2008).
3.2	Amended and Restated ByLaws of Heartland Financial USA, Inc. Amended and Restated as of March 16, 2021 (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on May 6, 2021).
3.3	Amendment to Certificate of Incorporation of Heartland Financial USA, Inc. as filed with the Delaware Secretary of State on July 30, 2009 (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 10, 2009).
3.4	Certificate of Designation of Senior Non-Cumulative Perpetual Preferred Stock, Series C, as filed with the Delaware Secretary of State on September 12, 2011 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on September 15, 2011).
3.5	Amendment to Certificate of Incorporation of Heartland Financial USA, Inc. filed with the Delaware Secretary of State on May 28, 2015 (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 6, 2015).
3.6	Certificate of Designation of 7% Senior Non-Cumulative Perpetual Convertible Preferred Stock, Series D, as filed with the Delaware Secretary of State on February 5, 2016 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on February 11, 2016).
3.7	Amendment to Certificate of Incorporation of Heartland Financial USA, Inc. as filed with the Delaware Secretary of State on May 18, 2017 (incorporated by reference to Exhibit 3.4 to the Registrant's Amendment No. 2 to it Form S-4 Registration Statement filed on May 18, 2017).
3.8	Amendment to Certificate of Incorporation of Heartland Financial USA, Inc. as filed with the Delaware Secretary of State on August 28, 2018 (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on November 6, 2018).
3.9	Amendment to Certificate of Incorporation of Heartland Financial USA, Inc. as filed with the Delaware Secretary of State on May 23, 2019 (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 7, 2019).
3.10	Amendment to Certificate of Incorporation of Heartland Financial USA, Inc. as filed with the Delaware Secretary of State Amendment to Certificate of Incorporation of Heartland Financial USA, Inc. as filed with the Delaware Secretary of State on June 6, 2019 (incorporated by reference to Exhibit 3.2 to the Registrant's Quarterly Report on Form 10-Q filed on August 7, 2019).
3.11	Certificate of Designation of 7.00% Fixed-Rate Reset Non-Cumulative Perpetual Preferred Stock, Series E, filed with the Secretary of State of the State of Delaware and effective June 25, 2020 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on June 26, 2020).
4.1	Form of Specimen Stock Certificate for Heartland Financial USA, Inc. common stock (incorporated by reference to Exhibit 4.1 to Registrant's Registration Statement on Form S-4 (File No. 33-76228) filed on May 4, 1994).
4.2	Form of Global Note representing the Securities (incorporated by reference to Exhibit 4.3 to the Registrant's Current Report on Form 10-Q filed on November 5, 2021)

4.3	Indenture by and between Heartland Financial USA, Inc. and Wells Fargo Bank, National Association, dated as of January 31, 2006 (incorporated by reference to Exhibit 10.19 to the Registrant's Annual Report on Form 10-K filed on March 10, 2006).
4.4	Indenture between Heartland Financial USA, Inc. and U.S. Bank National Association dated December 17, 2014 (incorporated by reference to Exhibit 4.1 to Registrant's Current Report on Form 8-K dated December 18, 2014)
4.5	Second Supplemental Indenture dated as of September 8, 2021 to the Indenture dated as of December 17, 2014 between Heartland Financial USA, Inc. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to Registrant's Current Report on Form 8-K dated September 8, 2021)
4.6	Indenture between Heartland Financial USA, Inc. and Wilmington Trust Company dated as of June 21, 2007 (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on August 9, 2007).
4.7	Indenture between Heartland Financial USA, Inc. and Wilmington Trust Company dated as of June 26, 2007 (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on August 9, 2007).
4.8	Rights Agreement, dated as of January 17, 2012, between Heartland Financial USA, Inc. and Dubuque Bank and Trust Company, as Rights Agent (incorporated by reference to Exhibit 4.1 to Registrant's Form 8-A filed on May 17, 2012).
4.9	Indenture by and between Morrill Bancshares, Inc. and State Street Bank and Trust Company of Connecticut, National Association dated as of December 19, 2002 (incorporated by reference to Exhibit 10.34 to the Registrant's Annual Report on Form 10-K filed on March 14, 2014).
4.10	Indenture by and between Morrill Bancshares, Inc. and U.S. Bank National Association dated as of December 17, 2003 (incorporated by reference to Exhibit 10.35 to the Registrant's Annual Report on Form 10-K filed on March 14, 2014).
4.11	Indenture between Heartland Financial USA, Inc. and U.S. Bank National Association dated as of December 17, 2014, as supplemented (including form of note) (incorporated by reference to Exhibit 4.1 and 4.2 to the Registrant's Current Report on Form 8-K filed on December 18, 2014).
4.12	Form of Stock Certificate for 7% Senior Non-Cumulative Perpetual Convertible Preferred Stock, Series D (incorporated by reference to Exhibit 4.4 to the Registrant's Annual Report on Form 10-K filed on March 11, 2016).
4.13	Form of certificate representing the 7.00% Fixed-Rate Reset Non-Cumulative Perpetual Preferred Stock, Series E (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed on June 26, 2020).
4.14	Deposit Agreement, dated June 26, 2020, by and among Heartland Financial USA, Inc., Broadridge Corporate Issuer Solutions, Inc. and the holders from time to time of Depositary Receipts described therein (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on June 26, 2020).
4.15	Form of Depositary Receipt representing Depositary Shares (incorporated by reference to Exhibit 4.3 to the Registrant's Form 8-K filed on June 26, 2020).
4.16	Amended and Restated Shareholder Voting Agreement, dated October 19, 2020, by and among AIM Bancshares, Inc., AimBank, Heartland Financial USA, Inc., First Bank & Trust, and certain holders of Common Stock (incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-4/A filed on October 19, 2020).
4.17	Description of Securities

10.1 (2) Form of Split-Dollar Life Insurance Plan effective November 13, 2001, between the subsidiaries of Heartland Financial USA, Inc. and their selected officers, including four subsequent amendments effective January 1, 2002, May 1, 2002, September 16, 2003 and December 31, 2007. These plans are in place at Dubuque Bank and Trust Company, Illinois Bank & Trust, Wisconsin Bank & Trust and New Mexico Bank & Trust (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on May 12, 2008).

10.2 (2) Form of Executive Supplemental Life Insurance Plan effective January 1, 2005, between the subsidiaries of Heartland Financial USA, Inc. and their selected officers, including a subsequent amendment effective December 31, 2007. These plans are in place at Dubuque Bank and Trust Company, Illinois Bank & Trust, Wisconsin Bank & Trust and New Mexico Bank & Trust (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on May 12, 2008).

10.3 (2) Form of Executive Life Insurance Bonus Plan effective December 31, 2007, between Heartland Financial USA, Inc. and selected officers of Heartland Financial USA, Inc. and its subsidiaries, including a subsequent amendment effective December 31, 2007 (incorporated by reference to Exhibit 10.8 to the Registrant's Annual Report on Form 10-K filed on March 16, 2009).

10.4 (2) Form of Split-Dollar Agreement effective November 1, 2008, between the subsidiaries of Heartland Financial USA, Inc. and their selected officers. These plans are in place at Dubuque Bank and Trust Company, Illinois Bank & Trust, Wisconsin Bank & Trust, New Mexico Bank & Trust, Arizona Bank & Trust, Citywide Banks, Minnesota Bank & Trust and Citizens Finance Co. (incorporated by reference to Exhibit 10.9 to the Registrant's Annual Report on Form 10-K filed on March 16, 2009).

10.5 (2) Form of Amendment to Change of Control Agreements (incorporated by reference to Exhibit 10.8 to the Registrant's Annual Report on Form 10-K filed on February 26, 2020).

10.6 (2) Heartland Financial USA, Inc. 2016 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on May 20, 2016).

10.7 (2) Business Loan Agreement dated June 14, 2019, between Heartland Financial USA, Inc. and Bankers Trust Company (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 7, 2019).

10.8 First Amendment dated June 16, 2020 to Business Loan Agreement dated June 14, 2019 June 16, 2020 to Business Loan Agreement dated June 14, 2019, between Heartland Financial USA, Inc. and Bankers Trust Company (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 6, 2020).

10.9 (3) Master Agreement between Fiserv Solutions LLC and Heartland Financial USA, Inc. dated July 1, 2021, and Amendment 1 to Agreement dated as of July 1, 2021 (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on August 5, 2021).

10.10 (2) Heartland Financial USA, Inc. Deferred Compensation Plan effective April 30, 2019 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on May 6, 2019.

10.11 (2) Form of Stock Options Award Agreement under the Heartland Financial USA, INC. 2020 Long-Term Incentive Plan vesting in the first, second, third and fourth years following the original grant award with a expiration date of 12/1/2032 (incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K filed on December 5, 2022.

10.12 (2) Form of Time-Based Restricted Stock Unit Award Agreement under the Heartland Financial USA, Inc. 2020 Long-Term Incentive Plan for time-based awards vesting in the first, second and third years following the original grant award (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on May 9, 2022).

10.13 (2) Form of Time-Based Restricted Stock Unit Award Agreement under the Heartland Financial USA, Inc. 2020 Long-Term Incentive Plan for time-based awards vesting in the first, second and third years following the original grant award (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on May 6, 2021).

10.14 (2) Form of Performance-Based Restricted Stock Unit Award Agreement Three-Year Performance Period under the Heartland Financial USA, Inc. 2020 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on May 9, 2022).

10.15	(2)	Form of Performance -Based Restricted Stock Unit Award Agreement Three-Year Performance Period under the Heartland Financial USA, Inc. 2020 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on May 6, 2021).
10.16	(2)	Heartland Financial USA, Inc. 2020 Long-Term Incentive Plan (incorporated by reference to Annex A to the Registrant's Definitive Proxy Statement filed on April 6, 2020).
10.17	(2)	Form of Time-Based Restricted Stock Unit Award Agreement under the Heartland Financial USA, Inc. 2020 Long-Term Incentive Plan for the time - based awards 3 year cliff vesting (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on May 6, 2021).
10.18	(1)(2)	Form of Director Restricted Stock Unit Award Agreement under the Heartland Financial USA, Inc. 2020 Long-Term Incentive Plan.
10.19	(1)(2)	Form of Member Board Restricted Stock Unit Award Agreement under the Heartland Financial USA, Inc. 2020 Long-Term Incentive Plan.
21.1	(1)	Subsidiaries of the Registrant.
23.1	(1)	Consent of KPMG LLP.
31.1	(1)	Certification of Chief Executive Officer pursuant to Rule 13a-14.
31.2	(1)	Certification of Chief Financial Officer pursuant to Rule 13a-14.
32.1	(1)	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	(1)	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	(1)	Financial statement formatted in Inline Extensible Business Reporting Language: (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Income, (iii) the Consolidated Statements of Cash Flows, (iv) the Consolidated Statements of Changes in Equity and Comprehensive Income, and (v) the Notes to Consolidated Financial Statements.
104	(1)	Cover page formatted in Inline Extensible Business Reporting Language

(1) Filed herewith.

(2) Management contracts or compensatory plans or arrangements.

(3) Portions of the contract have been omitted pursuant to SEC confidential treatment under 17 C.F.R. Section

Pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K, copies of certain instruments defining the rights of holders of long-term debt are not filed. Heartland agrees to furnish copies of such instruments to the SEC upon request.

SIGNATURES

Pursuant to the requirements of Section 13 of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on February 23, 2023.

Heartland Financial USA, Inc.

By: /s/ Bruce K. Lee
President and Chief Executive Officer

Date: February 23, 2023

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated on February 23, 2023.

By: /s/ Bruce K. Lee
Bruce K. Lee
President and Chief Executive Officer
(Principal Executive Officer and Duly Authorized Officer)

/s/ Bryan R. McKeag
Bryan R. McKeag
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

/s/ Janet M. Quick
Janet M. Quick
Executive Vice President and Deputy Chief Financial Officer
(Principal Accounting Officer)

/s/ Robert B. Engel
Robert B. Engel
Director

/s/ Thomas L. Flynn
Thomas L. Flynn
Director

/s/ Jennifer K. Hopkins
Jennifer K. Hopkins
Director

/s/ Christopher S. Hylen
Christopher S. Hylen
Director

/s/ Susan G. Murphy
Susan G. Murphy
Director

/s/ John K. Schmidt
John K. Schmidt
Director

/s/ Martin J. Schmitz
Martin J. Schmitz
Director

/s/ Kathryn Graves Unger
Kathryn Graves Unger
Director

/s/ Duane E. White
Duane E. White
Director

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