



**Commerce
Bancshares, Inc.**

Annual Report
& Form 10-K

2021

MOMENTUM

Innovation. Improvement. Growth.



Outstanding
Community
Reinvestment Act
rating for 25 years



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Throughout our 156-year history, we have taken care of business on behalf of our customers and shareholders, even when it wasn't business as usual. 2021 brought new disruptions and changes in the economy as well as in the banking industry — creating both challenges and opportunities for Commerce.

Our objective throughout 2021 was to build on the momentum we've created by continuously striving to improve, delivering innovative solutions and collaborating as one team to grow our relationships with customers. We've made significant progress on a number of key initiatives, and the compounding effects of our efforts will yield benefits for many years to come. The strength of our team and our ability to communicate effectively, supported by a best-in-class culture will allow our organization to grow and thrive well into the future.

4.7
★★★★★
Rating on
Android® & iOS
Platforms

AMERICA'S
BEST
BANKS
2022
Newsweek
POWERED BY
LendingTree

About the Cover

At Commerce, one of our top priorities is investing in our team of diverse, high-performing talent. Our team is the key to our success and the foundation to keep us moving forward as an organization. Meet Nikki Storms, a Senior Mentor in our University Academy Mentorship program and recently named Senior Diversity, Equity and Inclusion Strategy and Communications Lead, and Jerrell Thomas, a Salesforce Analyst and co-chair of our multicultural Employee Resource Group, VIBE. He was inducted into the Regional Business Council's 2021-2022 Young Professionals Network Leadership 100.

Financial Highlights

(In thousands, except per share data)

	2017	2018	2019	2020	2021
OPERATING RESULTS					
Net interest income	\$ 733,679	\$ 823,825	\$ 821,293	\$ 829,847	\$ 835,424
Provision for credit losses	45,244	42,694	50,438	137,190	(66,326)
Non-interest income	461,263	501,341	524,703	505,867	560,393
Investment securities gains (losses), net	25,051	(488)	3,626	11,032	30,059
Non-interest expense	744,343	737,821	767,398	768,378	805,901
Net income attributable to Commerce Bancshares, Inc.	319,383	433,542	421,231	354,057	530,765
Net income available to common shareholders	310,383	424,542	412,231	342,091	530,765
Cash dividends on common stock	91,619	100,238	113,466	120,818	122,693

AT YEAR END

Total assets	\$ 24,833,415	\$ 25,463,842	\$ 26,065,789	\$ 32,922,974	\$ 36,689,088
Loans, including held for sale	14,005,072	14,160,992	14,751,626	16,374,730	15,184,974
Investment securities	8,893,307	8,698,666	8,741,888	12,645,693	14,699,511
Deposits	20,425,446	20,323,659	20,520,415	26,946,745	29,813,073
Equity	2,718,184	2,937,149	3,138,472	3,399,972	3,448,324
Non-accrual loans	11,983	12,536	10,220	26,540	9,157
Common shares outstanding ¹	129,591	128,645	123,625	122,995	121,437
Tier I common risk-based capital ratio	12.65%	14.22%	13.93%	13.71%	14.34%
Tier I risk-based capital ratio	13.41	14.98	14.66	13.71	14.34
Total risk-based capital ratio	14.35	15.82	15.48	14.82	15.12
Tier I leverage ratio	10.39	11.52	11.38	9.45	9.13
Tangible common equity to tangible assets ratio	9.84	10.45	10.99	9.92	9.01
Efficiency ratio	62.18	55.58	56.87	57.19	57.64

OTHER FINANCIAL DATA (based on average balances)

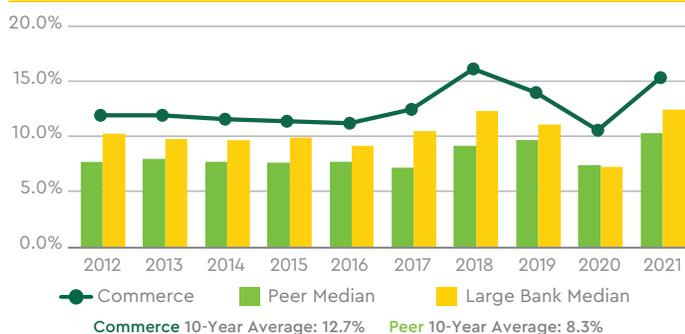
Return on total assets	1.28%	1.76%	1.67%	1.20%	1.55%
Return on common equity	12.46	16.16	14.06	10.64	15.37
Loans to deposits	66.18	69.27	71.54	67.73	56.46
Equity to total assets	10.53	11.24	12.20	11.18	10.11
Net yield on interest earning assets (T/E)	3.19	3.53	3.48	2.99	2.58

PER COMMON SHARE DATA

Net income – basic ¹	\$ 2.39	\$ 3.27	\$ 3.25	\$ 2.77	\$ 4.32
Net income – diluted ¹	2.38	3.26	3.25	2.77	4.31
Market price ¹	45.94	48.69	61.62	62.57	68.74
Book value ¹	19.86	21.71	24.22	27.64	28.40
Cash dividends ¹	0.705	0.773	0.898	0.980	1.000
Cash dividend payout ratio	29.52%	23.61%	27.52%	35.32%	23.12%

¹Restated for the 5% stock dividend distributed in December 2021

Return on Average Common Equity



Return on Average Assets



Sources: S&P Global Market Intelligence, and company reports and filings as of December 31, 2021 unless noted

Letter to Our Shareholders



David W. Kemper
Executive Chairman

COMMERCE BANCSHARES, INC.
FEBRUARY 23, 2022

By most growth measures, the U.S. economy recovered from 2020's pandemic-induced recession by mid-year 2021 and continues forward with solid, though sometimes uneven momentum. This forward progress has been spurred by low interest rates, massive fiscal stimulus, rapid employment growth, pent-up consumer savings, strong financial markets, and an ongoing vaccine distribution. The U.S. stock market, as measured by the S&P 500, surged in the first half of 2021, struggled in the third quarter as the Delta variant took hold, then rebounded to tally a remarkable 29% gain for the full year. This accelerating growth coincided with elevated inflation rates as pandemic-related supply chain disruptions and reduced labor supply constricted economic capacity.

The banking industry was tested in unforeseen ways in 2021 yet emerged stronger overall. The industry continues to face pressure due to consolidation, competitive trends, evolving customer preferences, and the current interest rate environment. At the same time, the outlook for banks looks constructive in the coming year with the potential for industry loan growth, expectations of interest rate increases, and continued high credit quality.

In 2021, Commerce Bancshares delivered another solid year of financial performance and continues to be well positioned to build on this momentum. Our healthy balance sheet coupled with growth in our fee-based businesses continues to provide strong revenue diversification. We are confident in our liquidity and capital levels, and credit performance remains excellent, reflecting our disciplined approach to underwriting.

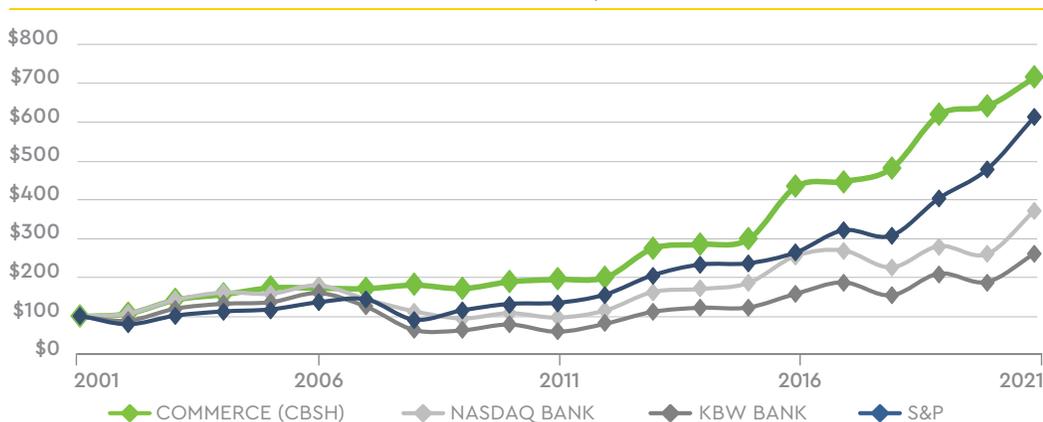
Consistent with our steady earnings, we returned capital to shareholders through increased dividends. In February 2022, we increased our quarterly common dividend 6% to \$.265 per share, the 54th consecutive year of dividend increases. Over the past 20 years, the annualized total return for shareholders has been more than 10%, significantly outperforming the KBW Bank Index annualized return of 5%.

Looking ahead, we are committed to creating and sustaining superior long-term shareholder value. We continue to build on the foundation that Commerce Bank has established over the past 156 years, making strategic investments that will allow us to innovate, to improve, and to grow well into the future. I would like to thank our team members, our customers and you — our shareholders — for your support. We look forward to working with you in the coming year.

David Kemper

Long-Term Shareholder Return

Cumulative Total Return Indexed, 12/31/2001 = \$100



Over the last 20 years
+10%
Annualized Shareholder Return

Source: Bloomberg as of December 31, 2021

Building Momentum: Innovation. Improvement. Growth.



John W. Kemper President and Chief Executive Officer

COMMERCE BANCSHARES, INC.
FEBRUARY 23, 2022

Dear Commerce Shareholders:

Having weathered the first year of the pandemic, the economy continued to rebound in 2021, fueled by sustained government stimulus, accommodative monetary policy, and pioneering scientific advances that turned the tide in the global health crisis. Strong consumer demand, fueled in part by continued government spending and elevated levels of saving, have put extraordinary pressure on fragile global supply chains. Ongoing disruptions in the labor force, marked by higher rates of retirement and job mobility, have created upward pressure on wages. These factors have contributed to inflation rates that the country has not experienced in 40 years.

The macroeconomic environment creates an uncertain and mixed outlook for the banking industry. Prolonged low interest rates over the past two years have compressed net interest margins. The banking system continues to have extraordinary liquidity, and balance sheets are consequently larger. Given historically high deposit balances, many consumers and businesses have had limited borrowing needs. While credit quality concerns have diminished greatly in the last year, the longer-term effects of the pandemic response are still unknown. A steady wave of traditional bank M&A activity continues as banks seek scale and efficiencies while struggling to find sustainable revenue growth. Non-bank

and fintech competition continues to drive innovation in financial services, particularly in the consumer and small business areas.

These changes and disruption in the banking industry create both challenges and opportunities for Commerce Bancshares. Our core challenge is to ensure that our value proposition to customers remains relevant in a world of rapid change. Our opportunity is to leverage that change to make our customers' lives better, to prosper and grow alongside them. As a safe and steady bank with deep roots in the communities we serve, we can also take advantage of the disruption created by bank consolidation to gain market share and attract talented team members.

As these past two years have shown, our Commerce team is well positioned to accept challenges. The team remains engaged, aligned and highly customer focused. We continue to shape our culture and to invest in the initiatives that will drive our future success for many years to come. I think you will see in the report that follows that your company stands ready to sustain the impressive momentum that it has built — to innovate, to improve, and to grow.

Our Results

The bank's 2021 financial results were fundamentally strong. Headline earnings in the first half of the year were at record levels, owing predominately to the improving credit outlook and the

release of loan loss reserves. This was a marked reversal of the previous year, when banks like Commerce set aside historic reserves in anticipation of credit losses that never materialized. Revenue and net income were further buoyed by the economic impact of the Paycheck Protection Program (PPP). In the second half of the year, earnings approached more normalized levels as PPP activity tapered off and reserve release slowed.

Even setting aside these extraordinary items, Commerce's financial performance was broadly positive. Our balance sheet remains healthy and strong. We experienced remarkable core deposit growth over the course of the year, mirroring the increase in liquidity in financial markets. Although loan demand has been somewhat limited, our teams created growth in asset categories like commercial and industrial (excluding PPP), business real estate and private banking loans. Building on the success we had in 2020, a cross-functional team acted quickly to issue a second round of PPP loans in early 2021, then turned its attention to the forgiveness process. Over the course of the PPP program, Commerce helped over 8,500 customers receive nearly \$2 billion in PPP funds. At year end, 93% of the loan balances had been forgiven.



The credit quality of our loan portfolio remains excellent, and by some measures was stronger in 2021 than before the pandemic. We saw continued robust contributions from our fee-based businesses. Our wealth management business delivered another record

year, propelled by robust new sales activity, excellent client retention and strong equity markets. Recovering spending volumes positively impacted our consumer credit card and commercial payments businesses, creating significant growth compared to 2020. Expense control was reasonably strong, notwithstanding the investments that the company continues to make in core systems and certain "blue chip" initiatives.

Commerce's capital levels remain among the strongest in the banking industry. The company returned \$252 million in capital to our common shareholders in 2021, including \$123 million in cash dividends and \$129 million in common share repurchases. In February 2022, we increased our common dividend 6% to \$.265 per share, the 54th consecutive year of such increases. The steady shareholder return of Commerce stock, including dividends, has outpaced the KBW Bank Index by an annualized 5% over the last 20 years.

Altogether, the company earned \$531 million in net income. Financial performance, as measured by return on average assets and return on average equity — 1.6% and 15.4%, respectively — was in the top quartile relative to peer institutions.

Strong Foundation for Growth

Commerce has long operated from a strong foundation, built on the steady execution of a unique super-community bank model. This operating model combines the best of small with the best of big, marrying sophisticated solutions, capabilities and advice with high-touch delivery in the context of deep relationships, excellent customer service and bankers who are empowered to take care of their customers and communities.

Foundational to our success and the source of our long-term competitive advantage is our culture — one we've worked very hard to shape over time. We take an intentional approach to introducing and reinforcing culture at every level of the organization. The strength of the Commerce franchise also depends on the diversity of our loan portfolio and fee-based businesses, which gives the bank earnings resiliency and excellent risk-adjusted profitability. Our cultural alignment, strong balance sheet and diversified revenue sources have proven to be particularly valuable during this period of uncertainty fueled by the pandemic.

Commerce has a long history of solid asset quality, prudent expense management, and strong levels of capital and liquidity, all of which positioned us well in 2021. Commerce is proud to be counted among the

safest banks in the world. In 2021, Moody's reaffirmed our bank's financial strength by assigning Commerce an A1 baseline credit assessment. Commerce is one of only five banks in the country and 19 banks in the world to hold a credit rating at this level or better.

None of this would be possible without our talented team members and their unwavering commitment to our purpose and culture. Our results are a reflection of the way this team works collaboratively, communicates, and strives toward the shared goal of helping our customers focus on what matters most.

Environmental, Social and Governance

As a socially responsible corporate citizen, Commerce continuously seeks opportunities to make a difference. We make ongoing investments in ideas, programs and technology that serve our customers, strengthen our communities, and support a healthy working environment. We have a long history of embedding these Environmental, Social and Governance (ESG) principles throughout the organization. Our inaugural ESG Report, published in 2021, provides a useful inventory of our team's efforts in this space, detailing initiatives related to community, customer and team member engagement, corporate governance, and environmental sustainability. It captures specific progress we have made in the past year as well as data and metrics to help quantify the value of our ESG initiatives.

Over the last year, we have made significant progress in our ESG efforts, and I am proud to highlight a few accomplishments. We formed an ESG Management Committee and established board level oversight. We created a Sustainability Task Force to support efforts toward a sustainable future for our customers, team members, communities and shareholders. We strengthened ESG governance throughout the organization and enhanced our disclosures and reporting, including enhancements to our website to reflect ESG messaging. While we are encouraged by

the progress made over the last year, we recognize there is more to do. We will continue to build structure around our ESG-focused initiatives and shape our roadmap to help make our communities a better place to live and work.

One year ago, we introduced a new "blue chip" initiative centered on improving Diversity, Equity and Inclusion (DEI) in and around Commerce. We have made great strides to advance our efforts against each of the four pillars of this initiative — our customers, our communities, our suppliers and our internal workplace. We conducted customer focus groups to understand the needs of diverse segments, in particular women and people of color. We hired a Community Outreach and Banking Officer to coordinate our efforts to help unbanked and underbanked community members gain access to the banking system and capital. We developed an internal database of supplier diversity to ensure our company spend is equitable. We instituted town hall meetings to provide updates on our progress and share how we are structuring our efforts within each pillar and business line. We launched a DEI Resource Guide for leaders and created a program, "My Commerce Journey," to highlight our diverse, talented workforce. We strengthened relationships in our communities, and we continue to enhance our culture — one where all team members can thrive and come to work as their authentic selves.



At Commerce, we recognize that our workplace diversity makes us a stronger company.

At Commerce, we recognize that our workplace diversity makes us a stronger company. To assist our team members in finding a sustaining sense of community at work, Commerce supports multiple voluntary, employee-led resource groups (ERGs) including RISE (empowering women), EMERGE (connecting young professionals), VIBE (valuing multicultural perspectives), and PRIDE (engaging the LGBTQIA+ community). Nearly 40% of team members belong to an ERG, with 15% participating in more than one group. These groups provide team members with a voice, a sense of belonging and an opportunity to help educate others. We recently introduced ELEVATE,

an ERG leadership skills growth series that focuses on giving back to the leaders who invest time and energy in our ERGs. We recognize that fostering an inclusive and diverse workforce supports the engagement, innovation and productivity that allows us to serve our customers and communities, now and in the future.

Commerce's culture emphasizes the need to build strong relationships with our communities. We take care to ensure our lending products and solutions meet the needs of the community, and we offer affordable options for homeownership through various customer programs. We are proud of the "outstanding" Community Reinvestment Act rating the company has consistently received over the past 25 years for our efforts to support low- and moderate-income communities. In addition to the services we provide as bankers, we contribute philanthropically through the Commerce Bancshares Foundation and through the volunteerism that we formally encourage through dedicated paid time off for our team members. Our team members support hundreds of nonprofits in our communities with their time, expertise and financial resources.

Our Business Segments: Growing Alongside Our Customers

Consumer Banking

The second year of the pandemic pushed Commerce to embrace new ways of empowering our teams, engaging with our customers, and investing in key areas for growth.

In a highly competitive market for talent, we leveraged our teammates' personal networks to attract great people to Commerce. Once here, they were immersed in personalized learning and development programs to build skills and contribute to our team more quickly.

During 2021, we introduced a host of new solutions and fulfillment enhancements to optimize the customer experience. We expanded the Commerce Bank CONNECT® mobile app experience to provide our customers a way to make personal connections with our bankers anytime and anywhere. The first such service to be offered in our largest markets, CONNECT gives customers a "banker in their pocket" to ask questions, select services, complete routine banking needs, and more.

Over the course of the year, we continued to invest in our digital platforms, releasing 33 updates across online and mobile banking and regularly delivering to our customers new features and functionality. We added self-service capabilities, including simplified password resets, an enhanced account opening process for new customers, and the ability to chat virtually through online banking and the mobile app. Additionally, we implemented appointment setting capabilities so customers can easily schedule a convenient time to receive personalized advice from our bankers.

Our relationships with consumer customers continue to be strong. In 2021, we maintained a primary banking relationship with more than 77% of our retail banking customers. We deepened relationships across key solutions, increased engagement through our various channels, and exceeded our overall customer experience goal. Our retail team is proud to have received the award for Best Customer Service from *Newsweek* for the second consecutive year as part of America's Best Banks. This is a testament to the best-in-class experience we provide our customers, made all the more remarkable against the backdrop of so much disruption in 2021. The strength of our customer relationships leaves us well positioned to grow in the years to come.

Commercial Banking and Commercial Payments

Our commercial banking and payments teams serve more than 12,000 customers across the U.S., helping them access the payments system, manage risk, fund growth, improve cash flow and pursue new opportunities.

A core function of our commercial bank is to be a provider of capital to our customers. The beginning of 2021 saw the reauthorization of the PPP program, and Commerce responded by originating over 4,000 new loans, totaling more than \$400 million of capital injected into small business balance sheets. Concurrently, our teams worked diligently to facilitate applications for forgiveness on the first round of PPP loans.

Surges in e-commerce and disruption in the supply chain resulted in strong demand for construction loans to build warehouse and distribution facilities. We worked with a number of experienced and well-capitalized commercial real estate developers to assist in meeting this demand, financing nearly \$1 billion in new construction in 2021. Commercial line utilization was dampened by limited

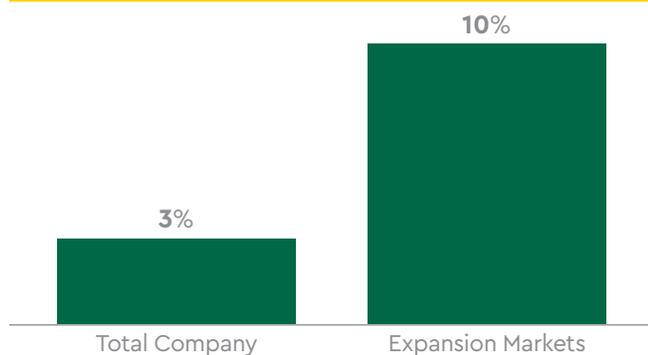
inventories and very liquid customers, as evidenced by an increase in average commercial deposits of 21%. We anticipate growth in the future as companies rebuild inventories to insulate against future disruptions.

Commercial loans were further bolstered by our loan syndication capabilities. Our knowledgeable team regularly leads multi-bank credits on behalf of our customers. In 2021, the syndications team supported credit commitments of nearly \$1.5 billion, of which Commerce provided over \$600 million. We expect our syndications business to grow in the future, alongside increasing demand from customers.

Commerce continues to build expertise and business in key industry verticals, particularly in healthcare under the CommerceHealthcare® brand. In 2021, the Healthcare Financial Management Association formally endorsed our AP Card, RemitConnect® and Health Services Financing solutions. This independent evaluation reinforces our deep knowledge in helping providers navigate payment automation from patients, insurers and suppliers alike.

More broadly, 2021 saw a significant rebound in commercial payments volume as business activities normalized and companies explored new ways to enhance security and automate their revenue cycle activities. Our CommercePayments® team is well positioned to meet the changing needs of clients, including the elimination of paper and manual processes, plus other operating efficiencies spurred by distributed back-office workforces. The foundation of prior investments in digital technology enabled the efficient onboarding of new customers as well as the timely modernization of existing ones.

Expansion Market Loan Growth 5-year CAGR



Building on our strengths in payments and industry-specific knowledge, we drove significant growth in our geographic expansion markets. In 2021, our teams delivered a 6% increase in loans and 21% increase in fee income, a reflection of the well-rounded commercial relationships we are building in these markets. Over the last 10 years, our compounded annual profit growth rate in our expansion markets has been 19%.

Technology and innovation will continue to allow for more intuitive and configurable platforms, reduced operational costs, and expedited delivery of products and services to the marketplace. In 2021, we released over 40 enhancements across products like PreferPay®, IntegratedPayables and Commerce Connections®. We also rolled out a pilot of Visa B2B Connect, a unique cross-border solution focused on fast and secure corporate payments. With innovative offerings, deep expertise and a growth mindset, our commercial team is poised to build further momentum in years to come.

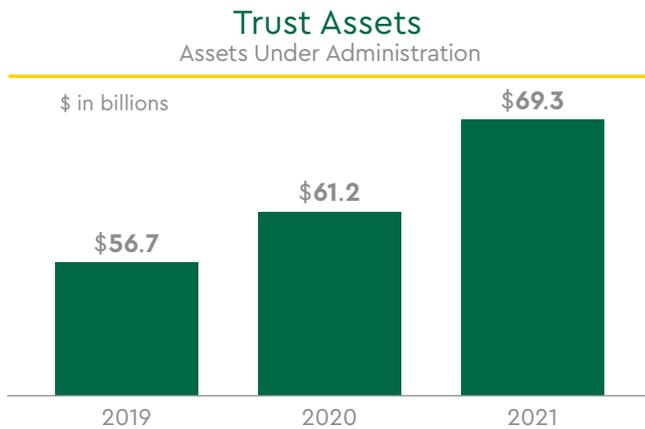
Wealth Management

Our wealth management business had another record year in 2021. Our team onboarded new clients, deepened existing relationships, and maintained superior client retention. Through volatile markets over the last couple of years, our clients stayed largely invested. Total revenue grew 16% over 2020 to a record \$285 million, and pre-tax profit grew 22%.

Commerce Trust Company (CTC) provides robust financial solutions across a broad spectrum of investments, financial planning and banking. We continue to distinguish ourselves by offering holistic advice and specialized portfolio management. Our focus is to craft and deliver an exceptional client experience, enabling clients to identify and achieve their goals. This is a business that requires deep investment and expertise, but delivers excellent risk-adjusted profitability to our shareholders.

Our clients are the focus of all we do at Commerce Trust Company, and we spend decades building trusting relationships with individuals, families and institutions. In return, our clients turn to us for advice in both good and uncertain times. Over the past year, we grew assets under administration by \$8 billion to an all-time high of \$69 billion. CTC is the 19th largest bank-managed trust company in the country based on assets under

management as of September 30, 2021. Likewise, our private banking business delivered excellent results as average loans grew 13% to nearly \$2 billion, and average deposits grew 31% to almost \$3 billion.



We continue to evaluate new wealth markets and acquisitions where synergies exist for strategic growth. In our existing wealth markets, 44% of our targeted prospective wealth consumers already maintain a banking relationship with Commerce. We are actively engaging these customers with personalized content and offers for financial planning and investment services. These existing customers constitute the largest and most immediate organic growth opportunity for our business.

In 2021, we worked to accelerate our investment in digital capabilities to better support our clients, offering a multitude of options for how and when they choose to interact with us. We developed a new private banking mobile platform with products to better serve our clients and improve their experience.

As a testament to our success and client focus, The Private Bank at Commerce Trust Company was recognized by *Global Finance* as the 2021 Best U.S. Regional Private Bank in the Midwest.

Continuous Improvement and Innovation

Central to the ability of any 156-year-old institution to endure and thrive is the right cultural mindset. Commerce's culture emphasizes the importance of continuous improvement and innovation. The compounding effect of even modest improvement over long periods of time can be enormously powerful. Done correctly, these improvements sustain a profitable enterprise that can invest in innovation.

Commerce delivered improvements, large and small, in many ways over the course of 2021. Our team invested heavily in digital delivery across all our businesses, and consistently updated our products and customer portals, working in agile fashion. We improved internal processes, adopting tools to streamline and distribute work among our team. Our ongoing investment in customer relationship management tools has allowed our teams to stay close to customers in a very challenging time, communicating regularly and in targeted, meaningful ways. While the future of on-site work remains unclear, our teams continue to embrace hybrid ways of getting work done, using communication tools and reconfiguring physical workplaces to give more flexibility and to improve collaboration. In many ways, collaboration has actually improved in the last two years, despite obvious impediments.

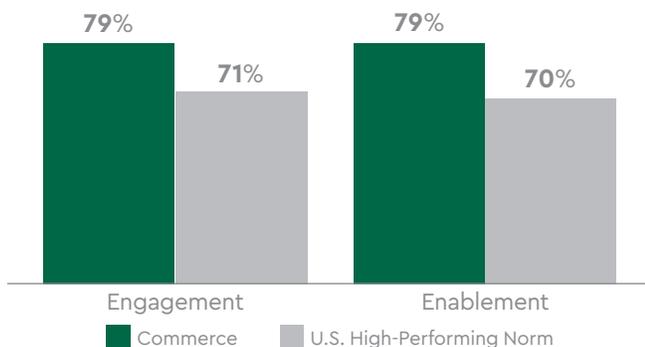
In addition to these incremental improvements, other accomplishments were more pioneeringly innovative. In early 2022, Commerce delivered on a multiyear transformative project to replace the bank's core banking application. Arguably the largest technical project in our company's history, this new system from our partner, Temenos, provides a flexible and scalable foundational architecture that allows us to grow with our customers. This is a tremendous accomplishment for our collective team and an incredible example of collaboration, agility and innovation. The new core solution can handle our current technology and data needs and positions us to support the new technologies of tomorrow. It will help power greater insight into our customers, allow us to bring new products to market more quickly, and position Commerce for success well into the future.

None of these improvements are possible without a team of diverse, high-performing talent. Some of our most important initiatives are focused on helping our team members grow their career at Commerce. We have an enormously strong foundation on which to build. In mid-2021, we announced our annual team member engagement survey results. Our engagement and enablement scores continue to be well above external benchmarks, as defined by our survey administrator, Korn Ferry. Digging into our survey results each year is an opportunity to employ a growth mindset and challenge ourselves to find ways to improve and to grow as a team and culture.

Underscoring these efforts, *Forbes* named Commerce to its 2021 list of America's Best Mid-sized Employers for the fourth consecutive year.

Highly Engaged and Enabled Teams

based on 2021 Team Member Survey by Korn Ferry



Looking Ahead: Building on Our Momentum

Commerce delivered strong results in 2021, with financial return metrics that rank in the top echelon of the banking industry and of our peer set. Our team made significant progress on a number of key initiatives while navigating a pandemic and working in a hybrid fashion. We successfully prepared for — and implemented — a new core banking system that enhances our ability to offer products to our customers and to innovate over time. We invested in our team and found new ways to collaborate on behalf of our customers.

Looking ahead, we are optimistic, but also mindful that revenue growth in the short term could be elusive for the industry. As PPP wanes, and if low rates persist, net interest income will experience pressure. The country continues to grapple with a challenging market for talent. The financial services landscape is intensely competitive and continues to evolve as more non-traditional banks work to gain market share. Delivery models are changing quickly, and this change is accelerating in line with evolving customer expectations. As such, culture and agility are critical for us to deliver superior service and results.

Our fee-based businesses will continue to be important as we focus on unlocking revenue and adding more value to our customer relationships. We continue to have bright growth prospects in payments and wealth management, and we are making steady gains in some geographic markets with very attractive demographics. We remain encouraged by the resiliency of our customers, our team members, and the communities we serve. Our long-term success will depend on our ability to adhere to and refine our operating model, employ continuous improvement, and embrace a growth mindset.

As we plan for the future, your company is poised to build on its current momentum — to innovate, improve and grow — to deliver additional value to our customers. On behalf of the entire Commerce team, I thank you for your continued support.

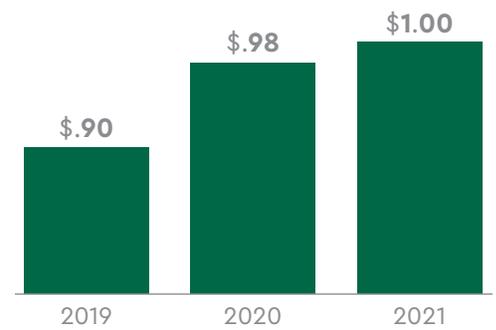
Growth in EPS and Stock Price



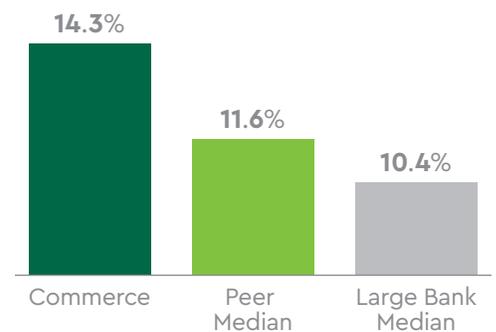
Performance Highlights

- Commerce reported earnings per share of \$4.31, up from \$2.77 in 2020. Return on average assets totaled 1.55% in 2021, and return on average equity was 15.4%. This compares favorably to the top 50 bank industry median of 1.21% for return on average assets and 12.1% for return on average common equity.
- Net income available to common shareholders totaled \$531 million in 2021 compared to \$342 million in 2020.
- In 2021, Commerce paid a regular cash dividend of \$1.00 per share (restated) on common shares, representing a 2% increase over 2020. In February 2022, we announced a 6% increase in our regular cash dividend, marking the 54th consecutive year in which regular cash dividends increased. Also in 2021, for the 28th year in a row, we paid a 5% stock dividend.
- Total shareholders' equity was \$3.4 billion, and our Tier I common risk-based capital ratio remained strong, ending 2021 at 14.3%.
- Period end construction loans grew \$97 million, or 9%, while consumer loans grew \$82 million, or 4%, in 2021.
- In 2021, Commerce originated \$402 million of Paycheck Protection Program (PPP) loans. Of the \$1.9 billion in total PPP loan balances we originated, 93% have been forgiven as of December 31, 2021.
- Total deposits grew \$2.9 billion, or 11%, compared to 2020, while the rate paid on interest bearing deposits declined from .24% to .07%.
- Fee income grew \$55 million, or 11%, compared to 2020, driven mostly by higher trust fees and bank card transaction fees. Fee income comprised 40% of total revenue in 2021.
- Fee income from our wealth management businesses grew 13% over 2021 to \$214 million. Commerce Trust Company assets under administration totaled \$69.3 billion.
- Net loan charge-offs totaled \$19 million and were 47% less than 2020. Net charge-offs totaled .12% of average loans in 2021 and the non-accrual loans to total loans ratio was .06% at December 31, 2021.
- Commerce Bank was recognized on *Forbes'* America's Best Banks 2021 list — one of the most respected lists in the industry — for the twelfth consecutive year.

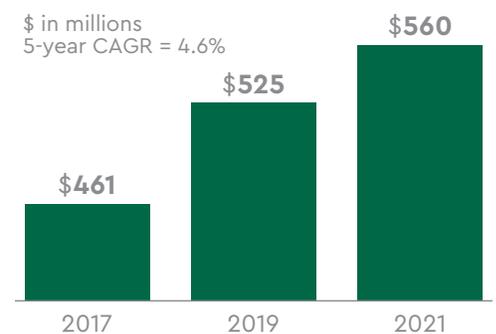
Cash Dividends per Common Share



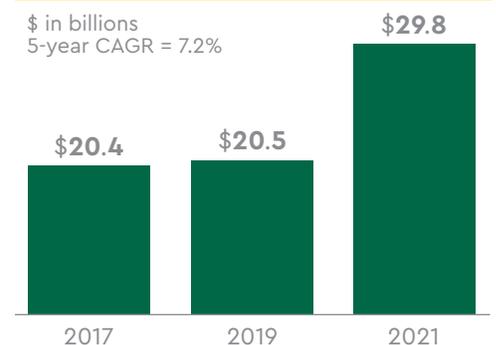
Tier I Common Risk-Based Capital Ratio



Non-Interest Income



Total Deposits



Commerce by the Numbers



Total Assets

Ranked **38th**
Among U.S. Banks



Total Deposits



Total Loans



Trust Assets Under Management

Ranked **19th**
Among U.S. Banks¹



Largest Commercial Card Issuer²



Baseline Credit Assessment³



Market Capitalization

Ranked **22nd**
Among U.S. Banks



Years in Business



Full-Time Equivalent Employees

FULL-SERVICE BANKING FOOTPRINT

152 full-service branches and 333 ATMs

St. Louis • Kansas City
Springfield • Central Missouri
Central Illinois • Wichita
Tulsa • Oklahoma City • Denver

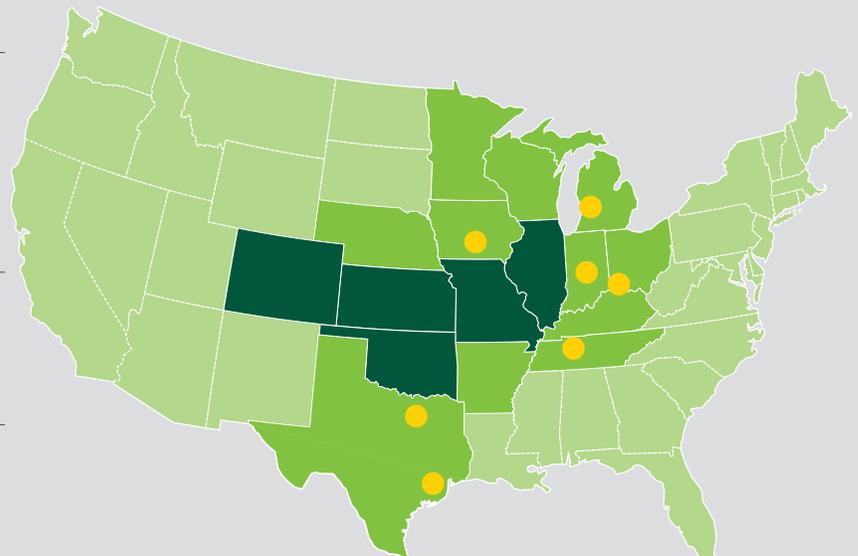
COMMERCIAL OFFICES

Cincinnati • Nashville • Dallas
Des Moines • Indianapolis
Grand Rapids • Houston

U.S. PRESENCE

Extended Commercial Market Area

Commercial Payments Services
Offered in 48 states across the U.S.



Sources: S&P Global Market Intelligence, and company reports and filings as of December 31, 2021

¹ Regulated U.S. depositories, which includes commercial banks, bank holding companies and credit unions, as of September 30, 2021

² Based on Top 50 U.S. Banks by asset size as of December 31, 2020 and Nilson Report rankings, May 2021

³ Commerce is 1 of 5 U.S. banks with an a1 or better Moody's rating, "Moody's U.S. Bank Rankings", November 18, 2021

Community Advisors

Our Community Advisors help us understand the unique needs and challenges of our customers and communities. They are business owners, educators, professionals and civic leaders who take on the challenges of their organizations and communities every day. We're continually impressed by their hard work and grateful to them for sharing their valuable insights. It is because of our Community Advisors in each of our markets that we're able to say "Challenge Accepted.®"

Missouri

CAPE GIRARDEAU

Nick Burger
Commerce Bank

Tim Coad
Coad Chevrolet and Coad Toyota

Gregg E. Hollabaugh
Commerce Bancshares, Inc.

Mike Kasten
Beef Alliance

Adam Kidd
Kidd's Gas & Convenience Store

Frank Kinder
Retired

Steve Sowers
Commerce Bank

Susan Layton Tomlin
Layton & Southard, LLC

Allen Toole
Schaefer's Electrical Enclosures

Ben Traxel
Tennile Companies

CENTRAL MISSOURI

Dan Atwill
Boone County Commission

Dr. Holly Bondurant
Tiger Pediatrics

Brent Bradshaw
Orscheln Management Co.

Chad Bruns
Chad Bruns Farms

Philip Burger
Burgers' Smokehouse

Brad Clay
Commerce Bank

Sarah Dubbert
Commerce Bank

Mark Fenner
Former Energy Industry CEO

Shayne W. Healea
Cornell Farrow Healea, LLC

Gregg E. Hollabaugh
Commerce Bancshares, Inc.

Robert S. Holmes
Commerce Bancshares, Inc.
Commerce Bank

George M. Huffman
Pearl Motor Company

Bart Jurgensmeyer
Jurgensmeyer Farms, Inc.

Rick Kruse
Retired, Boone National Savings &
Loan Association

Dr. Mike Lutz
Mike Lutz, DDS

Dr. Clifford J. Miller
Green Hills Veterinary Clinic

Robby Miller
Mexico Heating Company

Todd Norton
Commerce Bank

Robert K. Pugh
Retired, MBS Textbook Exchange

Gina Raines
Commerce Bank

Jim Rolls
Retired, Associated Electric Cooperative

Steve Sowers
Commerce Bank

David Townsend
Agents National Title Insurance Company

Andy Waters
AW Holdings, LLC

Larry Webber
Webber Pharmacy

Robin Wenneker
CPW Partnership

Dave Whelan
Commerce Bank

Dr. John S. Williams
Retired, Horton Animal Hospital

HANNIBAL

C. Todd Ahrens
Hannibal Regional Healthcare System

David M. Bleigh
Bleigh Construction Company
Bleigh Ready Mix Company

Jim Humphreys
Luck, Humphreys and Associates, CPA, PC

Darin D. Redd
Commerce Bank

Steve Sowers
Commerce Bank

HARRISONVILLE

Aaron Aurand
Crouch, Spangler & Douglas

Connie Aversman
Commerce Bank

Larry Dobson
Real Estate Investments

Mark Hense
Trinity Technical Group

Scott Milner
Retired, Milner Ford

Brent Probasco
Cass Regional Medical Center, Inc.

Aaron Rains
Commerce Bank

Laurence Smith
ReeceNichols Smith Realty

Dr. Larry Snider
Retired, Snider Optometry

Timothy Soulis
Golden Classics Jewelers

KANSAS CITY

Ali H. Armistead
Alaris Capital, LLC

Kevin G. Barth
Commerce Bancshares, Inc.
Commerce Bank

Rosana Privitera Biondo
Mark One Electric Co., Inc.

Clay C. Blair, III
Clay Blair Services Corp.

Timothy S. Dunn
J.E. Dunn Construction Co., Inc.

Jon D. Ellis
Paradise Park, Inc.

Stephen E. Gound
Labconco Corp.

Jonathan M. Kemper
Commerce Bancshares, Inc.
Commerce Bank

David F. Kiersznowski
DEMDACO

Michael P. McCoy
Intercontinental Engineering-
Manufacturing Corporation

Stephen G. Mos
Central States Beverage Company

Laura M. Perin
Labconco Corp.

Edward J. Reardon, II
Commerce Bank

Ora H. Reynolds
Hunt Midwest Enterprises, Inc.

Dr. Nelson R. Sabates
Sabates Eye Centers

Charles S. Sosland
Sosland Publishing Company

Thomas R. Willard
Commerce Trust Company
Tower Properties Company

POPLAR BLUFF

Edward L. Baker
Edward L. Baker Enterprises

Brad Chronister
Ten Mile Companies

Larry Greenwall
Greenwall Vending Co.

Gregg E. Hollabaugh
Commerce Bancshares, Inc.

Kenny Rowland
Commerce Bank

Steve Sowers
Commerce Bank

Gregory West
Mills Iron & Supply

ST. JOSEPH

Mark Barkman
Commerce Trust Company

Brett Carolus
Hillyard, Inc.

Brendon Clark
Commerce Bank

James H. Counts
Morton, Reed, Counts,
Briggs & Robb, LLC

Pat Dillon
Mosaic Life Care

Corky Marquart
Commerce Bank

Todd Meierhoffer
Meierhoffer Funeral Home & Crematory

Patrick Modlin
Room 108/Felix Street Gourmet

Dr. Scott Murphy
Murphy-Watson-Burr Eye Center

Edward J. Reardon, II
Commerce Bank

Matt Robertson
CliftonLarsonAllen LLP

Amy Ryan
Commerce Bank

Judy Sabbert
Retired, Mosaic Life Care Foundation

Rick Schultz
RS Electric

Bill Severn
NPG, Inc.

Heidi Walker
CBIZ Insurance Services

Julie Walker
Commerce Trust Company

ST. LOUIS METRO

Blackford F. Brauer
Hunter Engineering Company

Kyle Chapman
BW Forsyth Partners

Charles L. Drury, Jr.
Drury Hotels

Frederick D. Forshaw, Sr.
Forshaw of St. Louis

James G. Forsyth, III
Moto, Inc.

David S. Grossman
Private Investor

Tom Harmon
Commerce Bank

Robert S. Holmes
Commerce Bancshares, Inc.
Commerce Bank

Kristin Humes
Tacony Corporation

Donald A. Jubel
Spartan Light Metal Products

David W. Kemper
Commerce Bancshares, Inc.

John W. Kemper
Commerce Bancshares, Inc.
Commerce Bank

Alois J. Koller, III
Koller Enterprises, Inc.

Kristopher G. Kosup
Buckeye International, Inc.

Alaina Maciá
MTM

Arteveld J. McCoy II
SAGES LLC

James B. Morgan
Subsurface Constructors, Inc.

Chrissy Nardini
American Metals Supply Co., Inc.

Victor L. Richey, Jr.
ESCO Technologies, Inc.

James E. Schiele
Consultant

Paul J. Shaughnessy
BSI Constructors, Inc.

Thomas H. Stillman
Summit Distributing

Christine Taylor
Enterprise Holdings, Inc.

Andrew Thome
J.W. Terrill

Gregory Twardowski
Private Investor

Kelvin R. Westbrook
KRW Advisors, LLC

ST. LOUIS METRO EAST

Hamilton Callison
Breakthru Beverage Group

Darren L. Clay
Clay Piping

Harlan Ferry, Jr.
Retired, Commerce Bank

Matthew Gomric
Commerce Bank

Jared Katt
Chelar Tool & Die, Inc.

Robert McClellan
Retired, Hortica

James Rauckman
Rauckman High Voltage Sales, LLC

Dr. James T. Rosborg
McKendree University

Richard Sauget Jr.
Mayor of Sauget

Jack Schmitt
Jack Schmitt Family of Dealerships

Kurt Schroeder
Greensfelder, Hemker & Gale, P.C.

Joe Wiley
Quest Management Consultants

Dr. Charles J. Willey
Innovare Health Advocates

ST. LOUIS BUSINESS BANKING

Kevin Bray
St. Charles Community College

Richard K. Brunk
Attorney at Law

James N. Foster
McMahon Berger

Lou Helmsing
Craftsmen Trailer, LLC

J.L. (Juggie) Hinduja
Sinclair Industries, Inc.

Susan Kalist
Commerce Bank

Dr. Barbara Kavalier
St. Charles Community College

Greg Kendall
Commerce Bank

Stuart Krawll
Beam of St. Louis, Inc.

Patrick N. Lawlor
Lawlor Corporation

Scott Lively
CliftonLarsonAllen LLP

Stephen Mattis
Allied Industrial Equipment Corporation

Lisa D. McLaughlin
Reilly & McLaughlin

Peter J. Mihelich, Jr.
Goellner Promotions

McGraw Milhaven
KTRS

Duane A. Mueller
Cissell Mueller Construction Company

Elizabeth Powers
Powers Insurance

Dennis Scharf
Scharf Tax Services

William J. Zollmann, III
Attorney at Law

SPRINGFIELD

Christina Angle
The Erlen Group

Kimberly Chaffin
Hogan Land Title Company

Brian Esther
Commerce Bank

James P. Ferguson
Heart of America Beverage Co.

Charles R. Greene
American Sportsman Holdings Co.

Bunch Greenwade
Rancher

Robert A. Hammerschmidt, Jr.
Commerce Trust Company

Dr. Hal L. Higdon
Ozarks Technical Community College

Gregg E. Hollabaugh
Commerce Bancshares, Inc.

Robert S. Holmes
Commerce Bancshares, Inc.
Commerce Bank

Craig Lehman
Shelter Insurance Agency

Sherry Lynch
Commerce Bank

Michael Meek
Investments

James F. Moore
Retired, American Products

Robert Moreland
More-Land Realty, LLC

David Murray
R.B. Murray Company

Douglas D. Neff
Commerce Bancshares, Inc.
Commerce Bank

Keith Noble
Commerce Bank

Richard Ollis
Ollis/Akers/Arney Insurance &
Business Advisors

Doug Russell
The Durham Company

Rusty Shadel
Shadel's Colonial Chapel

David Waugh
Independent Stave Company

MOKAN

Donald Cupps
Ellis, Cupps & Cole

Adam Endicott
Unique Metal Fabrication, Inc.

Jay Hatfield
Jay Hatfield Chevrolet

Jerrod Hogan
Anderson Engineering

Wesley C. Houser
Retired, Commerce Bank

David C. Humphreys
TAMKO Building Products, Inc.

Phil Hutchens
Hutchens Construction

Don Kirk
H & K Camper Sales, Inc.

Barbara J. Majzoub
Yorktown Properties

Douglas D. Neff
Commerce Bancshares, Inc.
Commerce Bank

Eric Schnelle
S & H Farm Supply, Inc.

Steve W. Sloan
Midwest Minerals, Inc.

Brian Sutton
Commerce Bank

Clive Veri
Commerce Bank

Wendell L. Wilkinson
Retired, Commerce Bank

Kansas

BUTLER COUNTY (EL DORADO)

Vince Haines
Gravity :: Works Architecture

Ryan T. Murry
ICI

Marilyn B. Pauly
Retired, Commerce Bank

Jeremy Sundgren
Sundgren Realty, Inc.

Mark Utech
Commerce Bank

GARDEN CITY

Monte A. Cook
Commerce Bank

Richard Harp
Commerce Bank

Lee Reeve
Reeve Cattle Company

Patrick Rooney
Rooney Farms

Tamara Roth
Allred & Company, CPA's, Inc.

Pat Sullivan
Retired, Sullivan Analytical Service, Inc.

HAYS

D.G. Bickle, Jr.
Warehouse, Inc.

Monte A. Cook
Commerce Bank

Brian Dewitt
Adams, Brown, Beran & Ball, CPAs

Stuart Lowry
Sunflower Electric Power Corporation

Marty Patterson
Rome Corporation

Shane Smith
Commerce Bank

Kevin Royer
Midland Marketing Coop

LAWRENCE

Rob Gillespie
Commerce Bank

Michele Hammann
SSC CPAs + Advisors

Mark Heider
Retired, Commerce Bank

Russ Johnson
LMH Health

Eugene W. Meyer
Executive in Residence
Masters HealthCare Administration,
KUMC

Allison Vance Moore
Colliers International

Martin W. Moore

Advanco, Inc.

Kevin J. O'Malley

O'Malley Beverage of Kansas, Inc.

Edward J. Reardon, II

Commerce Bank

Dan C. Simons

The World Company

Michael Treanor

CT Design + Development

LEAVENWORTH**Arlen Briggs**

Armed Forces Insurance Exchange

Jeffrey Chalabi

Central Bag Company

Mark Denney

J.F. Denney Plumbing & Heating

Jeremy Greenamyre

Greenamyre Rentals

Eric Hoins

Young Sign Company, Inc.

Matt Kaaz

Leavenworth Excavating & Equipment Company, Inc.

Lawrence W. O'Donnell, Jr.

Lawrence W. O'Donnell, Jr., CPA Chartered

Bill Petrie

Commerce Bank

Edward J. Reardon, II

Commerce Bank

MANHATTAN**Mark Bachamp**

Olsson Associates

Linda Cook

Kansas State University

Monte A. Cook

Commerce Bank

Shawn Drew

Commerce Bank

Neal Helmick

Griffith Lumber Co.

Dr. David Pauls

Surgical Associates

WICHITA**Ray L. Connell**

Connell & Connell

Monte A. Cook

Commerce Bank

Thomas E. Dondlinger

Dondlinger Construction

Craig Duerksen

Commerce Bank

Ronald W. Holt

Retired, Sedgwick County

Eric Ireland

Commerce Bank

Paul D. Jackson

Vantage Point Properties, Inc.

Kristi Krok

Commerce Bank

Brett Mattison

Decker & Mattison Co., Inc.

Marilyn B. Pauly

Retired, Commerce Bank

John Rolfe

Kansas Leadership Center

Barry L. Schwan

House of Schwan, Inc.

David White

Alloy Architecture

Illinois**BLOOMINGTON-NORMAL****Brent A. Eichelberger**

Commerce Bank

Neil Finlen

Farnsworth Group, Inc.

Ron Greene

Afni, Inc.

Jared Hall

Keplr Vision Services

Mary Bennett Henrichs

Integrity Technology Solutions

Gregg E. Hollabaugh

Commerce Bancshares, Inc.

Robert S. Holmes

Commerce Bancshares, Inc. Commerce Bank

Nick Kemp

Vogo Cabinets

William J. Phillips IV

Commerce Bank

Jay Reece

Jay D. Reece, P.C., Attorney at Law

Alan Sender

Retired, Chestnut Health Systems

CHAMPAIGN-URBANA**Mark Arends**

Arends Hogan Walker, LLC

Matt Deering

Meyer Capel

Brent A. Eichelberger

Commerce Bank

Donna Greene

University of Illinois Foundation

Tim Harrington

Coldwell Banker Commercial Devonshire Realty

Gregg E. Hollabaugh

Commerce Bancshares, Inc.

Kim Martin

Martin Hood, LLC

William J. Phillips IV

Commerce Bank

Jeff Troxell

Commerce Bank

PEORIA**Bruce L. Alkire**

Coldwell Banker Commercial Devonshire Realty

David W. Altorfer

United Facilities, Inc.

Royal J. Coulter

Coulter Companies, Inc.

Dr. Michael A. Cruz

OSF Healthcare System

Brent A. Eichelberger

Commerce Bank

Gregg E. Hollabaugh

Commerce Bancshares, Inc.

Robert S. Holmes

Commerce Bancshares, Inc. Commerce Bank

John P. Kaiser

RSM US, LLP

Dr. James W. Maxey

OSF Orthopedics

Rebecca L. Rossman

Peoria Community Against Violence

Leanne Skuse

River City Construction, LLC

Jonathan A. Williams

Commerce Bank

Oklahoma**OKLAHOMA CITY****Gary Bridwell**

Orange Power Group

Steve Brown

Red Rock Distributing Co.

Jim Cleaver

Midsouth Financial Company

Clay Cockrill

SiteAware

Sherry Dale

The Mettise Group

Mark Fischer

Fischer Investments

Zane Fleming

Eagle Drilling Fluids

Cody Law

Commerce Bank

Mike McDonald

Triad Energy

Shannon O'Doherty

Commerce Bank

Vince Orza

Retired, Family Broadcasting Corporation

Kathy Potts

Rees Associates, Inc.

Ethan Slavin

Creek Commercial Realty

Jay Soulek

Northwest Crane Service

Joe Warren

Cimarron Production

TULSA**Jack Allen**

HUB International Limited

R. Scott Case

Case & Associates, Inc.

Wade Edmundson

Retired, Commerce Bank

Dr. John R. Frame

Breast Health Specialists of Oklahoma

Gip Gibson

Commerce Bank

Kent J. Harrell

Harrell Energy

Ed Keller

Titan Properties

Teresa L. Knox

Hickory House Properties LLC

Ken Lackey

The NORDAM Group, Inc.

Tom E. Maxwell

Retired, Flintco, LLC

Sanjay Meshri

Meshri Holdings

John Neas

Neas Investments

Shannon O'Doherty

Commerce Bank

John Peters

Adwon Properties

Tracy A. Poole

FortySix Venture Capital LLC

Stephanie Regan

AAON, Inc.

Dr. Andy Revelis

Tulsa Pain Consultants

Daryl Woodard

SageNet

Colorado**DENVER****Robert L. Cohen**

The IMA Financial Group, Inc.

Joseph Freund, Jr.

Running Creek Ranch

R. Allan Fries

i2 Construction, LLP

Darren Lemkau

Commerce Bank

James C. Lewien

Retired, Commerce Bank

Alek Orloff

Frontier Waste Solutions

David Schunk

Volunteers of America, Colorado Branch

Olivia Thompson

Retired, AlloSource

Jason Zickerman

The Alternative Board

Officers

David W. Kemper
Executive Chairman

John W. Kemper
President
and Chief Executive Officer

Charles G. Kim
Chief Financial Officer
and Executive Vice President

Kevin G. Barth
Executive Vice President

Sara E. Foster
Executive Vice President

John K. Handy
Executive Vice President

Robert S. Holmes
Executive Vice President

David L. Orf
Chief Credit Officer
and Executive Vice President

Derrick R. Brooks
Senior Vice President

Jeffrey M. Burik
Senior Vice President

Patricia R. Kellerhals
Senior Vice President

Douglas D. Neff
Senior Vice President

Paula S. Petersen
Senior Vice President

David L. Roller
Senior Vice President

Thomas J. Noack
Secretary, General Counsel
and Senior Vice President

B. Lynn Tankesley
Chief Risk Officer
and Senior Vice President

Paul A. Steiner
Controller

Aaron C. Meinert
Auditor

Directors

Terry D. Bassham*
Retired
Chief Executive Officer
and President
Energys, Inc.

John R. Capps*
Vice President
Weiss Toyota

Karen L. Daniel*
Retired
Chief Financial Officer
and Executive Director
Black & Veatch

Earl H. Devanny, III
Retired
Chief Executive Officer
TractManager

W. Thomas Grant, II
Director
SelectQuote

David W. Kemper
Executive Chairman
Commerce Bancshares, Inc.

John W. Kemper
President
and Chief Executive Officer
Commerce Bancshares, Inc.

Jonathan M. Kemper
Chairman Emeritus
Commerce Bank
Kansas City Region

Benjamin F. Rassieur, III*
President
Paulo Products Company

Todd R. Schnuck*
Chairman of the Board
and Chief Executive Officer
Schnuck Markets, Inc.

Andrew C. Taylor
Executive Chairman
Enterprise Holdings, Inc.

Kimberly G. Walker*
Retired
Chief Investment Officer
Washington University
in St. Louis

*Audit and Risk Committee Member

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the Fiscal Year Ended December 31, 2021

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

OR

For the transition period from _____ to _____

Commission File No. 001-36502

COMMERCE BANCSHARES, INC.

Missouri

43-0889454

(Exact name of registrant as specified in its charter)

(State of Incorporation)

(IRS Employer Identification No.)

1000 Walnut

Kansas City, MO

(Address of principal executive offices)

64106

(Zip Code)

Registrant's telephone number, including area code: (816) 234-2000

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

Title of class	Trading symbol(s)	Name of exchange on which registered
\$5 Par Value Common Stock	CBSH	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 15(d) of the Act. Yes No

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company

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

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

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

As of June 30, 2021, the aggregate market value of the voting stock held by non-affiliates of the Registrant was approximately \$8,097,000,000.

As of February 17, 2022, there were 121,110,096 shares of Registrant's \$5 Par Value Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive proxy statement for its 2022 annual meeting of shareholders, which will be filed within 120 days of December 31, 2021, are incorporated by reference into Part III of this Report.

Commerce Bancshares, Inc.**Form 10-K**

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PART I

Item 1. BUSINESS

General

Commerce Bancshares, Inc., a bank holding company as defined in the Bank Holding Company Act of 1956, as amended, was incorporated under the laws of Missouri on August 4, 1966. Through a second tier wholly-owned bank holding company, it owns all the outstanding capital stock of Commerce Bank (the “Bank”), which is headquartered in Missouri. The Bank engages in general banking business, providing a broad range of retail, mortgage banking, corporate, investment, trust, and asset management products and services to individuals and businesses. Commerce Bancshares, Inc. also owns, directly or through the Bank, various non-banking subsidiaries. Their activities include private equity investment, securities brokerage, insurance agency, specialty lending, and leasing activities. A list of Commerce Bancshares, Inc.'s subsidiaries is included as Exhibit 21.

Commerce Bancshares, Inc. and its subsidiaries (collectively, the "Company") is one of the nation's top 50 bank holding companies, based on asset size. At December 31, 2021, the Company had consolidated assets of \$36.7 billion, loans of \$15.2 billion, deposits of \$29.8 billion, and equity of \$3.4 billion. The Company's principal markets, which are served by 152 branch facilities, are located throughout Missouri, Kansas, and central Illinois, as well as Tulsa and Oklahoma City, Oklahoma and Denver, Colorado. Its two largest markets are St. Louis and Kansas City, which serve as central hubs for the Company. The Company also has offices supporting its commercial customers in Dallas, Houston, Cincinnati, Nashville, Des Moines, Indianapolis, and Grand Rapids, and operates a commercial payments business with sales representatives covering the continental United States of America (“U.S.”).

The Company's goal is to be the preferred provider of financial services in its communities, based on strong customer relationships built through providing top quality service with a strong risk management culture, and employing a strong balance sheet with strong capital levels. The Company operates under a super-community banking format which incorporates large bank product offerings coupled with deep local market knowledge, augmented by experienced, centralized support in select, critical areas. The Company's focus on local markets is supported by an experienced team of bankers assigned to each market coupled with industry specialists. The Company also uses regional advisory boards, comprised of local business persons, professionals and other community representatives, who assist the Company in responding to local banking needs. In addition to this local market, community-based focus, the Company offers sophisticated financial products usually only available at much larger financial institutions.

The markets the Bank serves are mainly located in the lower Midwest, which provides natural sites for production and distribution facilities and serve as transportation hubs. The economy has been well-diversified in these markets with many major industries represented, including telecommunications, automobile, technology, financial services, aircraft and general manufacturing, health care, numerous service industries, and food and agricultural production. The personal real estate lending operations of the Bank are predominantly centered in its lower Midwestern markets.

From time to time, the Company evaluates the potential acquisition of various financial institutions. In addition, the Company regularly considers the purchase and disposition of real estate assets and branch locations. The Company seeks merger or acquisition partners that are culturally similar, have experienced management and either possess significant market presence or have potential for improved profitability through financial management, economies of scale and expanded services. The Company has not completed any bank acquisitions since 2013.

Employees and Human Capital

The Company employed 4,387 persons on a full-time basis and 150 persons on a part-time basis at December 31, 2021. None of the Company's employees are represented by collective bargaining agreements.

Attracting and retaining talented team members is key to the Company's ability to execute its strategy and compete effectively. The Company values the unique combination of talents and experiences each team member contributes toward the Company's success and strives to offer rewards that meet team members' individual, evolving needs. Well-being is much more than a paycheck and that's why the Company takes a comprehensive approach to Total Rewards, supporting team members' physical well-being, financial well-being, and emotional well-being and career development. The Company's financial well-being program includes a company-matching 401(k) plan and health savings accounts, educational and adoption assistance programs. Emotional well-being programs include paid time off, an employee assistance program (EAP) and company-paid membership to Care.com. Physical well-being is supported by the Company's health, dental, vision, life and various other insurances, and a wellness program that incentivizes team members to live a healthy and balanced lifestyle. Career development is also a key component of the Company's Total Rewards, and the Company has a variety of programs to support team members as they continue to grow within their current role or develop for their next role. Job shadowing, leadership

development programs, Aspiring Managers program, Managing at Commerce, competency assessments and education assistance are just a few of the ways the Company helps team members excel.

During 2021 the ongoing impacts of the pandemic continued to create challenges for our team members. The Company continued focused efforts on providing team members support and resources to navigate the ever-changing environment. Initiatives included routine communications providing relevant updates and information, resources for leaders to help keep their teams engaged and connected, new resources for working parents, and access to emotional support resources. The Company implemented a phased-in approach to returning to on-site work and created more flexible work categories for team members to provide for ongoing flexibility.

The Company believes diversity, equity, and inclusion (DEI) builds stronger companies with better results. In 2021, the Company's efforts continued around a key initiative focusing on DEI through the lens of our workforce, our suppliers, our community and our customers. Internal teams continue to iterate to build plans for growth in all four areas. The Company continues to build a sense of belonging by engaging team members in a variety of Employee Resource Groups (ERGs) to support its diverse workforce. RISE (empowering women), EMERGE (connecting young professionals), VIBE (valuing multicultural perspectives), and PRIDE (engaging the LGBTQIA+ community) are important forums that provide team members opportunities to connect, learn, and encourage diverse perspectives. All programs were moved to a virtual environment to enable team members to continue to network and learn even in the environment brought on by the pandemic. Other internal DEI efforts have included unconscious bias training, book clubs, listen, talk, and learn sessions, courageous conversation training, mentoring programs, and review of talent at all levels of the organization. The Company's longstanding approach of "doing what's right" continues to guide its focus on its team members and communities.

The Company's robust listening strategy allows it to stay connected to the team member experience to understand the evolving needs of its team members and to focus on what matters most to them. This strategy includes a balance of surveys, focus groups, and one on one conversations to allow for two-way conversation and provides trends over time by key demographics. The Company's goal is to create a sense of belonging which it believes is connected to high levels of engagement, enablement, retention, and results. The Company's intentional strategy has allowed it to maintain levels of engagement that have been recognized by its annual survey partner, Korn Ferry, for being "best-in-class" and to be recognized by Forbes as one of the best mid-sized employers.

Competition

The Company operates in the highly competitive environment of financial services. The Company regularly faces competition from banks, savings and loan associations, credit unions, brokerage companies, mortgage companies, insurance companies, trust companies, credit card companies, private equity firms, leasing companies, securities brokers and dealers, financial technology companies, e-commerce companies, mutual fund companies, and other companies providing financial services. Some of these competitors are not subject to the same regulatory restrictions as domestic banks and bank holding companies. Some other competitors are significantly larger than the Company, and therefore have greater economies of scale, greater financial resources, higher lending limits, and may offer products and services that the Company does not provide. The Company competes by providing a broad offering of products and services to support the needs of customers, matched with a strong commitment to customer service. The Company also competes based on quality, innovation, convenience, reputation, industry knowledge, and price. In its two largest markets, the Company has approximately 12% of the deposit market share in Kansas City and approximately 8% of the deposit market share in St. Louis.

Operating Segments

The Company is managed in three operating segments: Commercial, Consumer, and Wealth. The Commercial segment provides a full array of corporate lending, merchant and commercial bank card products, payment solutions, leasing, and international services, as well as business and government deposit, investment, and cash management services. The Consumer segment includes the retail branch network, consumer installment lending, personal mortgage banking, and consumer debit and credit bank card activities. The Wealth segment provides traditional trust and estate planning services, brokerage services, and advisory and discretionary investment portfolio management services to both personal and institutional corporate customers. In 2021, the Commercial, Consumer and Wealth segments contributed 53%, 23% and 23% of total segment pre-tax income, respectively. See the section captioned "Operating Segments" in Item 7, Management's Discussion and Analysis, of this report and Note 13 to the consolidated financial statements for additional discussion on operating segments.

Government Policies

The Company's operations are affected by federal and state legislative changes, by the U.S. government, and by policies of various regulatory authorities, including those of the numerous states in which they operate. These include, for example, the

statutory minimum legal lending rates, domestic monetary policies of the Board of Governors of the Federal Reserve System, U.S. fiscal policy, international currency regulations and monetary policies, the U.S. Patriot Act, and capital adequacy and liquidity constraints imposed by federal and state bank regulatory agencies.

Supervision and Regulation

The following information summarizes existing laws and regulations that materially affect the Company's operations. It does not discuss all provisions of these laws and regulations, and it does not include all laws and regulations that affect the Company presently or may affect the Company in the future.

General

The Company, as a bank holding company, is primarily regulated by the Board of Governors of the Federal Reserve System under the Bank Holding Company Act of 1956, as amended (BHC Act). Under the BHC Act, the Federal Reserve Board's prior approval is required in any case in which the Company proposes to acquire all or substantially all the assets of any bank, acquire direct or indirect ownership or control of more than 5% of the voting shares of any bank, or merge or consolidate with any other bank holding company. With certain exceptions, the BHC Act also prohibits the Company from acquiring direct or indirect ownership or control of more than 5% of any class of voting shares of any non-banking company. Under the BHC Act, the Company may not engage in any business other than managing and controlling banks or furnishing certain specified services to subsidiaries, and may not acquire voting control of non-banking companies unless the Federal Reserve Board determines such businesses and services to be closely related to banking. When reviewing bank acquisition applications for approval, the Federal Reserve Board considers, among other things, the Bank's record in meeting the credit needs of the communities it serves in accordance with the Community Reinvestment Act of 1977, as amended (CRA). Under the terms of the CRA, banks have a continuing obligation, consistent with safe and sound operation, to help meet the credit needs of their communities, including providing credit to individuals residing in low- and moderate-income areas. The Bank has a current CRA rating of "outstanding."

The Company is required to file various reports and additional information with the Federal Reserve Board. The Federal Reserve Board regularly performs examinations of the Company. The Bank is a state-chartered Federal Reserve member bank and is subject to regulation, supervision and examination by the Federal Reserve Bank of Kansas City and the Missouri Division of Finance. The Bank is also subject to regulation by the Federal Deposit Insurance Corporation (FDIC). In addition, there are numerous other federal and state laws and regulations which control the activities of the Company, including requirements and limitations relating to capital and reserve requirements, permissible investments and lines of business, transactions with affiliates, loan limits, mergers and acquisitions, issuance of securities, dividend payments, and extensions of credit. The Bank is subject to federal and state consumer protection laws, including laws designed to protect customers and promote fair lending. These laws include the Equal Credit Opportunity Act, the Fair Credit Reporting Act, the Truth in Lending Act, the Home Mortgage Disclosure Act, the Real Estate Settlement Procedures Act, and their respective state law counterparts. If the Company fails to comply with these or other applicable laws and regulations, it may be subject to civil monetary penalties, imposition of cease and desist orders or other written directives, removal of management and, in certain circumstances, criminal penalties. This regulatory framework is intended primarily for the protection of depositors and the preservation of the federal deposit insurance funds. Statutory and regulatory controls increase a bank holding company's cost of doing business and limit the options of its management to employ assets and maximize income.

In addition to its regulatory powers, the Federal Reserve Bank affects the conditions under which the Company operates by its influence over the national supply of bank credit. The Federal Reserve Board employs open market operations in U.S. government securities and oversees changes in the discount rate on bank borrowings, changes in the federal funds rate on overnight inter-bank borrowings, and changes in reserve requirements on bank deposits in implementing its monetary policy objectives. These methods are used in varying combinations to influence the overall level of the interest rates charged on loans and paid for deposits, the price of the dollar in foreign exchange markets, and the level of inflation. The monetary policies of the Federal Reserve have a significant effect on the operating results of financial institutions, most notably on the interest rate environment. In view of changing conditions in the national economy and in the money markets, as well as the effect of credit policies of monetary and fiscal authorities, the Company makes no prediction as to possible future changes in interest rates, deposit levels or loan demand, or their effect on the financial statements of the Company.

The financial industry operates under laws and regulations that are under regular review by various agencies and legislatures and are subject to change. The Company currently operates as a bank holding company, as defined by the Gramm-Leach-Bliley Financial Modernization Act of 1999 (GLB Act), and the Bank qualifies as a financial subsidiary under the GLB Act, which allows it to engage in investment banking, insurance agency, brokerage, and underwriting activities that were not available to banks prior to the GLB Act. The GLB Act also included privacy provisions that limit banks' abilities to disclose non-public information about customers to non-affiliated entities.

The Company must also comply with the requirements of the Bank Secrecy Act (BSA). The BSA is designed to help fight drug trafficking, money laundering, and other crimes. Compliance is monitored by the Federal Reserve. The BSA was enacted to prevent banks and other financial service providers from being used as intermediaries for, or to hide the transfer or deposit of money derived from, criminal activity. Since its passage, the BSA has been amended several times. These amendments include the Money Laundering Control Act of 1986 which made money laundering a criminal act, as well as the Money Laundering Suppression Act of 1994 which required regulators to develop enhanced examination procedures and increased examiner training to improve the identification of money laundering schemes in financial institutions.

The USA PATRIOT Act, established in 2001, substantially broadened the scope of U.S. anti-money laundering laws and regulations by imposing significant new compliance and due diligence obligations, creating new crimes and penalties and expanding the extra-territorial jurisdiction of the U.S. The regulations impose obligations on financial institutions to maintain appropriate policies, procedures and controls to detect, prevent, and report money laundering and terrorist financing. The regulations include significant penalties for non-compliance.

The Company is subject to regulation under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2011 (Dodd-Frank Act). Among its many provisions, the Dodd-Frank Act required stress-testing for certain financial services companies and established a new council of “systemic risk” regulators. The Dodd-Frank Act also established the Consumer Financial Protection Bureau (CFPB) which is authorized to supervise certain financial services companies and has responsibility to implement, examine for compliance with, and enforce “Federal consumer financial law.” The Company is subject to examinations by the CFPB. The Dodd-Frank Act, through Title VI, commonly known as the Volcker Rule, placed trading restrictions on financial institutions and separated investment banking, private equity and proprietary trading (hedge fund) sections of financial institutions from their consumer lending arms. The Volcker Rule also restricts financial institutions from investing in and sponsoring certain types of investments.

In May 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act was signed into law which provides a number of limited amendments to the Dodd-Frank Act. Notable provisions of the legislation include: an increase in the asset threshold from \$50 billion to \$250 billion, above which the Federal Reserve is required to apply enhanced prudential standards; an exemption from the Volcker Rule for insured depository institutions with less than \$10 billion in consolidated assets; modifications to the Liquidity Coverage and Supplementary Leverage ratios; and the elimination of Dodd-Frank company-run stress tests for banks and bank holding companies with less than \$250 billion in assets. Most of these provisions affect institutions larger than the Company, and the Company is not required to prepare stress testing as specified by the Dodd-Frank Act.

Subsidiary Bank

Under Federal Reserve policy, the bank holding company, Commerce Bancshares, Inc. (the "Parent"), is expected to act as a source of financial strength to its bank subsidiary and to commit resources to support it in circumstances when it might not otherwise do so. In addition, loans by a bank holding company to any of its subsidiary banks are subordinate in right of payment to deposits and to certain other indebtedness of such subsidiary banks. In the event of a bank holding company's bankruptcy, any commitment by the bank holding company to a federal bank regulatory agency to maintain the capital of a subsidiary bank will be assumed by the bankruptcy trustee and entitled to a priority of payment.

Deposit Insurance

Substantially all of the deposits held by the Bank are insured up to applicable limits (generally \$250,000 per depositor for each account ownership category) by the FDIC's Deposit Insurance Fund (DIF) and are subject to deposit insurance assessments to maintain the DIF. In 2011, the FDIC released a final rule to implement provisions of the Dodd-Frank Act that affected deposit insurance assessments. Among other things, the Dodd-Frank Act raised the minimum designated reserve ratio from 1.15% to 1.35% of estimated insured deposits, removed the upper limit of the designated reserve ratio, required that the designated reserve ratio reach 1.35% by September 30, 2020, and required the FDIC to offset the effect of increasing the minimum designated reserve ratio on depository institutions with total assets of less than \$10 billion. The Dodd-Frank Act provided the FDIC flexibility in the implementation of the increase in the designated reserve ratio and also required that the FDIC redefine the assessment base to average consolidated assets minus average tangible equity. For the year ended December 31, 2021, the Company's deposit insurance expense was \$9.1 million.

Payment of Dividends

The Federal Reserve Board may prohibit the payment of cash dividends to shareholders by bank holding companies if their actions constitute unsafe or unsound practices. The principal source of the Parent's cash revenues is cash dividends paid by the Bank. The amount of dividends paid by the Bank in any calendar year is limited to the net profit of the current year combined

with the retained net profits of the preceding two years, and permission must be obtained from the Federal Reserve Board for dividends exceeding these amounts. The payment of dividends by the Bank may also be affected by factors such as the maintenance of adequate capital.

Capital Adequacy

The Company is required to comply with the capital adequacy standards established by the Federal Reserve, which are based on the risk levels of assets and off-balance sheet financial instruments. Capital adequacy guidelines and prompt corrective action regulations involve quantitative measures of assets, liabilities, and certain off-balance sheet items calculated under regulatory accounting practices. Capital amounts and classifications are also subject to judgments by regulators regarding qualitative components, risk weightings, and other factors.

A comprehensive capital framework was established by the Basel Committee on Banking Supervision, which was effective for large and internationally active U.S. banks and bank holding companies on January 1, 2015. A key goal of the Basel III framework was to strengthen the capital resources of banking organizations during normal and challenging business environments. Basel III increased minimum requirements for both the quantity and quality of capital held by banking organizations. The rule includes a minimum ratio of common equity Tier 1 capital to risk-weighted assets of 4.5% and a common equity Tier 1 capital conservation buffer of 2.5% of risk-weighted assets. The capital conservation buffer is intended to absorb losses during periods of economic stress. Failure to maintain the buffer will result in constraints on dividends, stock repurchases and executive compensation. The rule also adjusted the methodology for calculating risk-weighted assets to enhance risk sensitivity. At December 31, 2021, the Company's capital ratios are well in excess of those minimum ratios required by Basel III.

The Federal Deposit Insurance Corporation Improvement Act (FDICIA) requires each federal banking agency to take prompt corrective action to resolve the problems of insured depository institutions, including but not limited to those that fall below one or more prescribed minimum capital ratios. Pursuant to FDICIA, the FDIC promulgated regulations defining the following five categories in which an insured depository institution will be placed, based on the level of its capital ratios: well-capitalized, adequately capitalized, undercapitalized, significantly undercapitalized, and critically undercapitalized. Under the prompt corrective action provisions of FDICIA, an insured depository institution generally will be classified as well-capitalized (under the Basel III rules mentioned above) if it has a Tier 1 capital ratio of at least 8%, a common equity Tier 1 capital ratio of at least 6.5%, a total capital ratio of at least 10%, and a Tier 1 leverage ratio of at least 5%. An institution that, based upon its capital levels, is classified as "well-capitalized," "adequately capitalized," or "undercapitalized," may be treated as though it were in the next lower capital category if the appropriate federal banking agency, after notice and opportunity for hearing, determines that an unsafe or unsound condition, or an unsafe or unsound practice warrants such treatment. At each successive lower capital category, an insured depository institution is subject to more restrictions and prohibitions, including restrictions on growth, restrictions on interest rates paid on deposits, restrictions or prohibitions on payment of dividends, and restrictions on the acceptance of brokered deposits. Furthermore, if a bank is classified in one of the undercapitalized categories, it is required to submit a capital restoration plan to the federal bank regulator, and the holding company must guarantee the performance of that plan. The Bank has consistently maintained regulatory capital ratios above the "well-capitalized" standards.

Stress Testing

As required by the Dodd-Frank Act, the Company performed stress tests as specified by the Federal Reserve requirement and published results beginning in 2014 through 2017. On May 24, 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act was enacted, which eliminated the required stress testing under the Dodd-Frank Act for banks with consolidated assets of less than \$250 billion. The Company continues to perform periodic stress-testing based on its own internal criteria.

Executive and Incentive Compensation

Guidelines adopted by federal banking agencies prohibit excessive compensation as an unsafe and unsound practice, and describe compensation as "excessive" when the amounts paid are unreasonable or disproportionate to the services performed by an executive officer, employee, director or principal shareholder. The Federal Reserve Board has issued comprehensive guidance on incentive compensation intended to ensure that the incentive compensation policies do not undermine safety and soundness by encouraging excessive risk taking. This guidance covers all employees that have the ability to materially affect the risk profile of an organization, either individually or as part of a group, based on key principles that (i) incentives do not encourage risk-taking beyond the organization's ability to identify and manage risk, (ii) compensation arrangements are compatible with effective internal controls and risk management, and (iii) compensation arrangements are supported by strong corporate governance, including active and effective board oversight. Deficiencies in compensation practices may affect

supervisory ratings and enforcement actions may be taken if incentive compensation arrangements pose a risk to safety and soundness.

Transactions with Affiliates

The Federal Reserve Board regulates transactions between the Bank and its subsidiaries. Generally, the Federal Reserve Act and Regulation W, as amended by the Dodd-Frank Act, limit the Company's banking subsidiary and its subsidiaries to lending and other "covered transactions" with affiliates. The aggregate amount of covered transactions a banking subsidiary or its subsidiaries may enter into with an affiliate may not exceed 10% of the capital stock and surplus of the banking subsidiary. The aggregate amount of covered transactions with all affiliates may not exceed 20% of the capital stock and surplus of the banking subsidiary.

Covered transactions with 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 the banking subsidiary, including derivative contracts, (b) a purchase of securities issued to a banking subsidiary, (c) a purchase of assets by the banking subsidiary unless otherwise exempted by the Federal Reserve, (d) acceptance of securities issued by an affiliate to the banking subsidiary as collateral for a loan, and (e) the issuance of a guarantee, acceptance or letter of credit by the banking subsidiary on behalf of an affiliate.

Certain transactions with the Company's directors, officers or controlling persons are also subject to conflicts of interest regulations. Among other things, these regulations require that loans to such persons and their related interests be made on terms substantially the same as for loans to unaffiliated individuals, and must not create an abnormal risk of repayment or other unfavorable features for the financial institution. See Note 2 to the consolidated financial statements for additional information on loans to related parties.

Available Information

The Company's principal offices are located at 1000 Walnut Street, Kansas City, Missouri (telephone number 816-234-2000). The Company makes available free of charge, through its website at www.commercebank.com, reports filed with the Securities and Exchange Commission as soon as reasonably practicable after the electronic filing. Additionally, a copy of our electronically filed materials can be found at www.sec.gov. These filings include the annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports.

Item 1a. RISK FACTORS

Making or continuing an investment in securities issued by the Company, including its common stock, involves certain risks that you should carefully consider. If any of the following risks actually occur, the Company's business, financial condition or results of operations could be negatively affected, the market price for your securities could decline, and you could lose all or a part of your investment. Further, to the extent that any of the information contained in this Annual Report on Form 10-K constitutes forward-looking statements, the risk factors set forth below also are cautionary statements identifying important factors that could cause the Company's actual results to differ materially from those expressed in any forward-looking statements made by or on behalf of Commerce Bancshares, Inc.

Market Risks

Difficult market conditions may affect the Company's industry.

The concentration of the Company's banking business in the United States particularly exposes it to downturns in the U.S. economy. Almost two years into the COVID-19 pandemic, the uncertainty in the economic outlook as of December 31, 2021 continued to affect the Company's financial results and operations.

In particular, the Company may face the following risks in connection with market conditions:

- In 2020, the U.S. economy entered a recession, driven by the onset of the COVID-19 pandemic and the mitigating strategies implemented to attempt to prevent the transmission of COVID-19. The U.S. economy improved significantly in 2021. However, the COVID-19 pandemic has not yet subsided and could continue to materially and adversely impact the U.S. economy.
- The U.S. economy is affected by global events and conditions, including the COVID-19 pandemic. Although the Company does not directly hold foreign debt or have significant activities with foreign customers, the global economy, the strength of the U.S. dollar, international trade conditions, and oil prices may ultimately affect interest rates, business import/export activity, capital expenditures by businesses, and investor confidence. Unfavorable changes in these factors may result in declines in consumer credit usage, adverse changes in payment patterns, reduced loan demand, and higher loan delinquencies and default rates. These could impact the Company's future credit losses and provision for credit losses, as a significant part of the Company's business includes consumer and credit card lending.
- In addition to the COVID-19 slowdown noted above, further slowdowns in economic activity may cause additional declines in financial services activity, including declines in bank card, corporate cash management and other fee businesses, as well as the fees earned by the Company on such transactions.
- The process used to estimate losses expected in the Company's loan portfolio requires difficult, subjective, and complex judgments, including consideration of economic conditions and how these economic predictions might impair the ability of its borrowers to repay their loans. If an instance occurs that renders these predictions no longer capable of accurate estimation, this may in turn impact the reliability of the process.
- Competition in the industry could intensify as a result of the increasing consolidation of financial services companies in connection with current market conditions, thereby reducing market prices for various products and services which could in turn reduce the Company's revenues.

The performance of the Company is dependent on the economic conditions of the markets in which the Company operates.

The Company's success is heavily influenced by the general economic conditions of the specific markets in which it operates. Unlike larger national or other regional banks that are more geographically diversified, the Company provides financial services primarily throughout the states of Missouri, Kansas, central Illinois, Oklahoma, and Colorado. It also has a growing presence in additional states through its commercial banking offices in: Texas, Iowa, Indiana, Michigan, Ohio, and Tennessee. As the Company does not have a significant banking presence in other parts of the country, a prolonged economic downturn in these markets could have a material adverse effect on the Company's financial condition and results of operations.

The Company operates in a highly competitive industry and market area.

The Company operates in the financial services industry and has numerous competitors including other banks and insurance companies, securities dealers, brokers, trust and investment companies, mortgage bankers, and financial technology companies. Consolidation among financial service providers and new changes in technology, product offerings and regulation continue to challenge the Company's marketplace position. As consolidation occurs, larger regional and national banks may enter the Company's markets and add to existing competition. Large, national financial institutions have substantial capital, technology and marketing resources. These new competitors may lower fees to grow market share, which could result in a loss of customers and lower fee revenue for the Company. They may have greater access to capital at a lower cost than the Company,

and may have higher loan limits, both of which may adversely affect the Company's ability to compete effectively. The Company must continue to make investments in its products and delivery systems to stay competitive with the industry, or its financial performance may suffer.

The soundness of other financial institutions could adversely affect the Company.

The Company's ability to engage in routine funding transactions could be adversely affected by the actions and commercial soundness of other financial institution counterparties. Financial services institutions are interrelated because of trading, clearing, counterparty or other relationships. The Company has exposure to many different industries and counterparties and routinely executes transactions with counterparties in the financial industry, including brokers and dealers, commercial banks, investment banks, mutual funds, and other institutional clients. Transactions with these institutions include overnight and term borrowings, interest rate swap agreements, securities purchased and sold, short-term investments, and other such transactions. Because of this exposure, defaults by, or rumors or questions about, one or more financial services institutions or the financial services industry in general, could lead to market-wide liquidity problems and defaults by other institutions. Many of these transactions expose the Company to credit risk in the event of default of its counterparty or client, while other transactions expose the Company to liquidity risks should funding sources quickly disappear. In addition, the Company's credit risk may be exacerbated when the collateral held cannot be realized or is liquidated at prices not sufficient to recover the full amount of the exposure due to the Company. Any such losses could materially and adversely affect results of operations.

Regulatory and Compliance Risks

The Company is subject to extensive government regulation and supervision.

As part of the financial services industry, the Company is subject to extensive federal and state regulation and supervision. Banking regulations are primarily intended to protect depositors' funds, federal deposit insurance funds, and the banking system, not shareholders. These regulations affect the Company's lending practices, capital structure, investment practices, dividend policy, and growth, among other things. Congress and federal regulatory agencies continually review banking laws, regulations, and policies for possible changes. Changes to statutes, regulations, or regulatory policies, including changes in interpretation or implementation of statutes, regulations, or policies, could affect the Company in substantial and unpredictable ways. Such changes could subject the Company to additional costs, limit the types of financial services and products it may offer, and/or increase the ability of non-banks to offer competing financial services and products, among other things. Failure to comply with laws, regulations, or policies could result in sanctions by regulatory agencies, civil money penalties, and/or reputation damage, which could have a material adverse effect on the Company's business, financial condition, and results of operations. While the Company has policies and procedures designed to prevent any such violations, there can be no assurance that such violations will not occur.

Significant changes in federal monetary policy could materially affect the Company's business.

The Federal Reserve System regulates the supply of money and credit in the United States. Its policies determine in large part the cost of funds for lending and interest rates earned on loans and paid on borrowings and interest-bearing deposits. Credit conditions are influenced by its open market operations in U.S. government securities, changes in the member bank discount rate, and bank reserve requirements. Changes in Federal Reserve Board policies are beyond the Company's control and difficult to predict, and such changes may result in lower interest margins and a lack of demand for credit products.

Liquidity and Capital Risks

The Company is subject to both interest rate and liquidity risk.

With oversight from its Asset-Liability Management Committee, the Company devotes substantial resources to monitoring its liquidity and interest rate risk on a monthly basis. The Company's net interest income is the largest source of overall revenue to the Company, representing 60% of total revenue for the year ended December 31, 2021. The interest rate environment in which the Company operates fluctuates in response to general economic conditions and policies of various governmental and regulatory agencies, particularly the Federal Reserve Board, which regulates the supply of money and credit in the U.S. Changes in monetary policy, including changes in interest rates, will influence loan originations, deposit generation, demand for investments and revenues and costs for earning assets and liabilities, and could significantly impact the Company's net interest income.

As a result of the COVID-19 pandemic, the Federal Reserve Board lowered the benchmark interest rate to between zero and 0.25%. Future economic conditions or other factors could shift monetary policy resulting in increases or additional decreases in the benchmark rate. Furthermore, changes in interest rates could result in unanticipated changes to customer deposit balances and funding costs and affect the Company's source of funds for future loan growth.

Commerce Bancshares, Inc. relies on dividends from its subsidiary bank for most of its revenue.

Commerce Bancshares, Inc. is a separate and distinct legal entity from its banking and other subsidiaries. It receives substantially all of its revenue from dividends from its subsidiary bank. These dividends, which are limited by various federal and state regulations, are the principal source of funds to pay dividends on its common stock and to meet its other cash needs. In the event the subsidiary bank is unable to pay dividends, the Company may not be able to pay dividends or other obligations, which would have a material adverse effect on the Company's financial condition and results of operations.

Operational Risks

The impact of the phase-out of LIBOR is uncertain.

In 2017, the United Kingdom Financial Conduct Authority, which regulates LIBOR, announced that LIBOR would likely be discontinued at the end of 2021 as panel banks would no longer be required to submit estimates that are used to construct LIBOR. U.S. regulatory authorities voiced similar support for phasing out LIBOR. On March 5, 2021, LIBOR's regulator and its administrator announced that the publication of certain LIBOR tenors will cease immediately after December 31, 2021 and the remaining LIBOR tenors, including 1-month USD LIBOR, will cease immediately after June 30, 2023. The Alternative Rates Reference Committee (the "ARRC"), a group of market participants convened by the Federal Reserve Board and the New York Fed to help ensure a successful transition from LIBOR, identified the Secured Overnight Financing Rate ("SOFR") as its preferred alternative rate.

The Company established a LIBOR Transition Program, which is led by the LIBOR Transition Steering Committee (Committee) whose purpose is to guide the overall transition process for the Company. The Committee is an internal, cross-functional team with representatives from all relevant business lines, support functions and legal counsel. A LIBOR impact and risk assessment has been performed, and the Company has developed and prioritized action items. All financial contracts that reference LIBOR have been identified and are being monitored on an ongoing basis. The process of remediating these contracts has started. LIBOR fallback language has been included in key loan provisions of new and renewed loans in preparation for the transition from LIBOR. Changes to the Company's systems have been identified, and the process of installing and testing code was started in the third quarter of 2021. The process of installing and testing code on impacted systems is expected to be completed in 2022.

The Company has a significant number of loans, derivative contracts, and other financial instruments with attributes that are either directly or indirectly dependent on LIBOR, mostly 1-month LIBOR. As of December 31, 2021, the Company had approximately \$1.9 billion of commercial loans, \$1.4 billion of derivative contracts (notional value), and \$840 million of investment securities that are expected to mature after June 30, 2023. These amounts will decrease in future periods as the Company works with customers to replace contracts that use LIBOR with alternative reference rates. The Company ceased entering any new loan contracts that use USD LIBOR as a reference rate in December 2021. The impact of alternatives to LIBOR on the valuations, pricing and operation of the Company's financial instruments is not yet known.

The Company may be adversely affected if the interest rates currently tied to LIBOR on the Company's loans, derivatives, and other financial instruments are not able to be transitioned to an alternative rate. Furthermore, the Company may be faced with disputes or litigation with customers regarding interpretation and enforcement of fallback language used in loan agreements as the transition to a new benchmark rate continues to evolve.

The Company's asset valuation may include methodologies, models, estimations and assumptions which are subject to differing interpretations and could result in changes to asset valuations that may materially adversely affect its results of operations or financial condition.

The Company uses estimates, assumptions, and judgments when certain financial assets and liabilities are measured and reported at fair value. Assets and liabilities carried at fair value inherently result in greater financial statement volatility. Fair values and the information used to record valuation adjustments for certain assets and liabilities are based on quoted market prices and/or other observable inputs provided by independent third-party sources, when available. When such third-party information is not available, fair value is estimated primarily by using cash flow and other financial modeling techniques utilizing assumptions such as credit quality, liquidity, interest rates and other relevant inputs. Changes in underlying factors, assumptions, or estimates in any of these areas could materially impact the Company's future financial condition and results of operations. Furthermore, if models used to calculate fair value of financial instruments are inadequate or inaccurate due to flaws in their design or execution, upon sale, the Company may not realize the cash flows of a financial instrument as modeled and could incur material, unexpected losses.

During periods of market disruption, including periods of significantly rising or high interest rates, rapidly widening credit spreads or illiquidity, it may be difficult to value certain assets if trading becomes less frequent and/or market data becomes less observable. There may be certain asset classes in active markets with significant observable data that become illiquid due to the current financial environment. In such cases, certain asset valuations may require more subjectivity and management judgment.

As such, valuations may include inputs and assumptions that are less observable or require greater estimation. Further, rapidly changing and unprecedented credit and equity market conditions could materially impact the valuation of assets as reported within the Company's consolidated financial statements, and the period-to-period changes in value could vary significantly. Decreases in value may have a material adverse effect on results of operations or financial condition.

The Company's operations rely on certain external vendors.

The Company relies on third-party vendors to provide products and services necessary to maintain day-to-day operations. For example, the Company outsources a portion of its information systems, communication, data management, and transaction processing to third parties. Accordingly, the Company is exposed to the risk that these vendors might not perform in accordance with the contracted arrangements or service level agreements because of changes in the vendor's organizational structure, financial condition, support for existing products and services, or strategic focus. Such failure to perform could be disruptive to the Company's operations, which could have a materially adverse impact on its business, financial condition and results of operations. These third parties are also sources of risk associated with operational errors, system interruptions or breaches and unauthorized disclosure of confidential information. If the vendors encounter any of these issues, the Company could be exposed to disruption of service, damage to reputation and litigation. Because the Company is an issuer of both debit and credit cards, it is periodically exposed to losses related to security breaches which occur at retailers that are unaffiliated with the Company (e.g., customer card data being compromised at retail stores). These losses include, but are not limited to, costs and expenses for card reissuance as well as losses resulting from fraudulent card transactions.

The Company converted its core customer and deposit systems during 2022 and may encounter significant adverse developments.

The Company replaced its core customer and deposit systems and other ancillary systems (collectively referred to as core system) during the first quarter of 2022. The core system is used to track customer relationships and deposit accounts and is integrated with channel applications that are used to service customer requests by bank personnel or directly by customers (such as online banking and mobile applications). The new core system provides a platform based on current technology, enables the Company to integrate other systems more efficiently, and is a significant improvement compared to the Company's previous core system. The initial conversion was completed successfully, however, the Company may face operational risks in the months following conversion, including disruptions to its technology systems, which may adversely impact customers. The Company has plans, policies and procedures designed to prevent or limit the risks of a failure after the conversion of its core system. However, there can be no assurance that any such adverse development will not occur or, if they do occur, that they will be timely and adequately remediated. The ultimate impact of any adverse development could damage the Company's reputation, result in a loss of customer business, subject the Company to regulatory scrutiny, or expose it to civil litigation and possibly financial liability, any of which could have a material effect on the Company's business, financial condition, and results of operations.

Credit Risks

The allowance for credit losses may be insufficient or future credit losses could increase.

The allowance for credit losses on loans and the liability for unfunded lending commitments at December 31, 2021 reflect management's estimate of credit losses expected in the loan portfolio, including unfunded lending commitments, as of the balance sheet date. See Note 2 to the consolidated financial statements and the section captioned "Allowance for Credit Losses on Loans and Liability for Unfunded Lending Commitments" in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, of this report for further discussion related to the Company's process for determining the appropriate level of the allowance for credit losses on loans and the liability for unfunded lending commitments at December 31, 2021.

In 2016, the Financial Accounting Standards Board (FASB) issued a new accounting standard "Measurement of Credit Losses on Financial Instruments" (ASU 2016-13), which became effective January 1, 2020 and was adopted by the Company at that time. This new standard significantly altered the way the allowance for credit losses is determined and utilizes a life of loan loss concept and required significant operational changes, especially in data collection and analysis. The level of the allowance is based on management's methodology that utilizes historical net charge-off rates, and adjusts for the impacts in the reasonable and supportable forecast and other qualitative factors. Key assumptions include the application of historical loss rates, prepayment speeds, forecast results of a reasonable and supportable period, the period to revert to historical loss rates, and qualitative factors. The Company's allowance level is subject to review by regulatory agencies, and that review could also result in adjustments to the allowance for credit losses. Additionally, the Company's provision for credit losses may be more volatile in the future under the new standard, due to macroeconomic variables that influence the Company's loss estimates, and the volatility in credit losses may be material to the Company's earnings.

The Company's investment portfolio values may be adversely impacted by deterioration in the credit quality of underlying collateral within the various categories of investment securities it owns.

The Company generally invests in liquid, investment grade securities, however, these securities are subject to changes in market value due to changing interest rates and implied credit spreads. While the Company maintains prudent risk management practices over bonds issued by municipalities and other issuers, credit deterioration in these bonds could occur and result in losses. Certain mortgage and asset-backed securities (which are collateralized by residential mortgages, credit cards, automobiles, mobile homes or other assets) may decline in value due to actual or expected deterioration in the underlying collateral. Under accounting rules, when an available for sale debt security is in an unrealized loss position, the entire loss in fair value is required to be recognized in current earnings if the Company intends to sell the security or believes it is more likely than not that the Company will be required to sell the security before the value recovers. Additionally, the current expected credit loss model (CECL) implemented by the Company on January 1, 2020, requires that lifetime expected credit losses on securities be recorded in current earnings. This could result in significant losses.

Strategic Risk

New lines of business or new products and services may subject the Company to additional risk.

From time to time, the Company may implement new lines of business or offer new products and services within existing lines of business. There are substantial risks and uncertainties associated with these efforts, particularly in instances where the markets are not fully developed. In developing and marketing new lines of business and new products or services, the Company may invest significant time and resources. Initial timetables for the introduction and development of new lines of business and 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, or new product or service, could have a significant impact on the effectiveness of the Company's system of internal controls. Failure to successfully manage these risks in the development and implementation of new lines of business and new products or services could have a material adverse effect on the Company's financial condition and results of operations.

General Risks

A successful cyber attack or other computer system breach could significantly harm the Company, its reputation and its customers.

The Company relies heavily on communications and information systems to conduct its business, and as part of its business, the Company maintains significant amounts of data about its customers and the products they use. Information security risks continue to increase due to new technologies, the increasing use of the Internet and telecommunication technologies (including mobile devices) to conduct financial and other business transactions, and the increased sophistication and activities of organized crime, perpetrators of fraud, hackers, and others. The Company makes significant investments in various technology to identify and prevent intrusions into its information system. The Company also has policies and procedures designed to prevent or limit the effect of failure, interruption or security breach of its information systems, offers ongoing training to employees, hosts tabletop exercises to test response readiness, and performs regular audits using both internal and outside resources. However, there can be no assurance that any such failures, interruptions or security breaches will not occur, or if they do occur, that they will be adequately addressed. In addition to unauthorized access, denial-of-service attacks or other operational disruptions could overwhelm Company websites and prevent the Company from adequately serving customers. Should any of the Company's systems become compromised or customer information be obtained by unauthorized parties, the reputation of the Company could be damaged, relationships with existing customers may be impaired, and the Company could be subject to lawsuits, all of which could result in lost business and have a material adverse effect on the Company's business, financial condition and results of operations.

The Company continually encounters technological change.

The financial services industry is continually undergoing rapid technological change with frequent introductions of new technology-driven products and services, including the entrance of financial technology companies offering new financial service products. The Company regularly upgrades or replaces technological systems to increase efficiency, enhance product and service capabilities, eliminate risks of end-of-lifecycle products, reduce costs, and better serve our customers. The Company's future success depends, in part, upon its ability to address the needs of its customers by using technology to provide products and services that will satisfy customer demands, as well as to create additional efficiencies in the Company's operations. Many of the Company's competitors have substantially greater resources to invest in technological improvements. The Company may encounter significant problems and may not be able to effectively implement new technology-driven products and services and may not be successful in marketing the new products and services to its customers. These problems might include significant time delays, cost overruns, loss of key people, and technological system failures. Failure to

successfully keep pace with technological change affecting the financial services industry or failure to successfully complete the replacement of technological systems could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company must attract and retain skilled employees.

The Company's success depends, in large part, on its ability to attract and retain key people. Competition for the best people can be intense, and the Company spends considerable time and resources attracting, hiring, and retaining qualified people for its various business lines and support units. Companies throughout the U.S. saw significant turnover during 2021, and the number of candidates in the job market was generally much lower than the demand for talent. The unexpected loss of the services of one or more of the Company's key personnel could have a material adverse impact on the Company's business because of their skills, knowledge of the Company's market, and years of industry experience, as well as the difficulty of promptly finding qualified replacement personnel.

Public health threats or outbreaks of communicable diseases have adversely affected, and are expected to continue to adversely affect, the Company's operations and financial results.

The Company may face risks related to public health threats or outbreaks of communicable diseases. A widespread healthcare crisis, such as an outbreak of a communicable disease could adversely affect the global economy and the Company's financial performance. For example, the ongoing global COVID-19 pandemic has destabilized the financial markets in which the Company operates and may continue to cause significant disruption in the global economies and financial markets, including the Company's local markets. The Company is dependent upon the willingness and ability of its customers to conduct banking and other financial transactions. In reaction to and as preventative measures to attempt to slow the spread of the pandemic that began in 2020, government authorities in many states and municipalities implemented mandatory closures, shelter-in-place orders, and social distancing protocols, including orders within many of the geographic areas that the Company operates. Although the Company is considered an essential business, access to its branches and office locations were previously and may again be restricted, for the safety of its employees and customers. Restricting customers' access to the Company's physical business locations has limited some customers from transacting with the Company and lowered demand for certain lending and other services offered by the Company and could continue to do so for an indefinite period of time. Conversely, the ongoing COVID-19 pandemic has increased demand for certain other products and services, requiring the Company to pivot its focus in certain strategic initiatives. The Company's ability to meet customer demand in this changing environment could result in increased expenses, and this could have a material adverse effect on the Company's results of operations, financial condition, and liquidity. In particular, the continued spread of COVID-19 and efforts to contain the virus could:

- continue to impact customer demand of the Company's lending and related services, leading to lower revenue;
- cause the Company to experience an increase in costs as a result of the Company implementing operational changes to accommodate its remote workforce;
- cause delayed payments from customers and uncollectible accounts, defaults, foreclosures, and declining collateral values, resulting in losses to the Company;
- result in losses on the Company's investment portfolio, due to volatility in the markets and lower trading volume driven by economic uncertainty;
- cause market interest rates to continue to decline, which could adversely affect the Company's net interest income and profitability;
- cause the Company's credit losses to grow substantially;
- impact availability of qualified personnel; and
- cause other unpredictable events.

The situation surrounding the COVID-19 pandemic remains uncertain and the potential for a material impact on the Company's results of operations, financial condition, and liquidity increases the longer the virus impacts activity levels in the United States and globally. The Company continues to adapt to the changing dynamics of the COVID-19 impacts to the economy and the needs of its employees and customers. New information regarding the severity of the COVID-19 pandemic and ongoing reactions to the pandemic by customers, vendors, and government authorities will continue to impact access to the Company's business, as well as the economies and markets in which the Company operates. While the U.S. economy improved significantly during 2021, the COVID-19 pandemic or fallout from economic and societal changes resulting from the pandemic may cause prolonged global or national recessionary economic conditions, which could have a material adverse effect on the Company's business, results of operations and financial condition. Beyond the current COVID-19 pandemic, the potential

impacts of epidemics, pandemics, or other outbreaks of an illness, disease, or virus could therefore materially and adversely affect the Company's business, revenue, operations, financial condition, liquidity and cash flows.

Our business and financial results may be affected by societal and governmental responses to climate change and related environmental issues.

The current and anticipated effects of climate change have raised concerns for the condition of the global environment. These concerns have changed and will continue to change the behavior of consumers and businesses. Further, governments have increased their attention on the issue of climate change. As a result, international agreements have been signed to attempt to reduce global temperatures and federal and state legislative and regulatory initiatives have been proposed to seek to mitigate the effects of climate change. The Company and its customers may need to respond to new laws and regulations as well as new consumer and business preferences resulting from climate change concerns. These changes may result in cost increases, asset value reductions, and operating process changes to the Company and its customers. The impact on our customers will likely vary depending on their specific attributes, including reliance on or role in carbon intensive activities. Among the impacts to the Company could be a drop in demand for our products and services, particularly in certain industries. In addition, the Company could experience reductions in creditworthiness on the part of some customers or in the value of assets securing loans. The Company's efforts to take these risks into account in making lending and other decisions, including by increasing the Company's business with climate-friendly companies, may not be effective in protecting the Company from the adverse impact of new laws and regulations or changes in consumer or business behavior.

Item 1b. UNRESOLVED STAFF COMMENTS

None

Item 2. PROPERTIES

The main offices of the Company are located in Kansas City and St. Louis, Missouri. The Company owns its main offices and leases unoccupied premises to the public. The larger office buildings include:

Building	Net rentable square footage	% occupied in total	% occupied by Bank
1000 Walnut Kansas City, MO	391,000	94%	52%
922 Walnut Kansas City, MO	256,000	95	91
811 Main Kansas City, MO	237,000	100	100
8000 Forsyth Clayton, MO	178,000	100	100

The Company has an additional 152 branch locations in Missouri, Illinois, Kansas, Oklahoma and Colorado which are owned or leased.

Item 3. LEGAL PROCEEDINGS

The information required by this item is set forth in Item 8 under Note 21, Commitments, Contingencies and Guarantees on page 137.

Item 4. MINE SAFETY DISCLOSURES

Not applicable

Information about the Company's Executive Officers

The following are the executive officers of the Company as of February 23, 2022, each of whom is designated annually. There are no arrangements or understandings between any of the persons so named and any other person pursuant to which such person was designated an executive officer.

Name and Age	Positions with Registrant
Kevin G. Barth, 61	Executive Vice President of the Company since April 2005, and Community President and Chief Executive Officer of Commerce Bank since October 1998. Senior Vice President of the Company and Officer of Commerce Bank prior thereto.
Derrick R. Brooks, 45	Senior Vice President of the Company and Executive Vice President of Commerce Bank since January 2021. Senior Vice President of Commerce Bank prior thereto.
Jeffrey M. Burik, 63	Senior Vice President of the Company since February 2013. Executive Vice President of Commerce Bank since November 2007.
Sara E. Foster, 61	Executive Vice President of the Company since February 2012 and Senior Vice President of the Company prior thereto. Executive Vice President of Commerce Bank since January 2016 and Senior Vice President of Commerce Bank prior thereto.
John K. Handy, 58	Executive Vice President of the Company since January 2018 and Senior Vice President of the Company prior thereto. Community President and Chief Executive Officer of Commerce Bank since January 2018 and Senior Vice President of Commerce Bank prior thereto.
Robert S. Holmes, 58	Executive Vice President of the Company since April 2015, and Community President and Chief Executive Officer of Commerce Bank since January 2016. Prior to his employment with Commerce Bank in March 2015, he was employed at a Midwest regional bank where he served as managing director and head of Regional Banking.
Patricia R. Kellerhals, 64	Senior Vice President of the Company since February 2016 and Vice President of the Company prior thereto. Executive Vice President of Commerce Bank since 2005.
David W. Kemper, 71	Executive Chairman of the Company and of the Board of Directors of the Company since August 2018. Prior thereto, he was Chief Executive Officer of the Company and Chairman of the Board of Directors of the Company. He was President of the Company from April 1982 until February 2013. He is the brother of Jonathan M. Kemper (a former Vice Chairman of the Company), and father of John W. Kemper, President and Chief Executive Officer of the Company.
John W. Kemper, 44	Chief Executive Officer of the Company and Chairman and Chief Executive Officer of Commerce Bank since August 2018. Prior thereto, he was Chief Operating Officer of the Company. President of the Company since February 2013 and President of Commerce Bank since March 2013. Member of Board of Directors since September 2015. He is the son of David W. Kemper (Executive Chairman of the Company) and nephew of Jonathan M. Kemper (a former Vice Chairman of the Company).
Charles G. Kim, 61	Chief Financial Officer of the Company since July 2009. Executive Vice President of the Company since April 1995 and Executive Vice President of Commerce Bank since January 2004. Prior thereto, he was Senior Vice President of Commerce Bank.
Douglas D. Neff, 53	Senior Vice President of the Company since January 2019 and Chairman and Chief Executive Officer of Commerce Bank Southwest Region since 2013.
David L. Orf, 55	Executive Vice President of the Company since October 2020 and Chief Credit Officer of the Company since January 2021. Executive Vice President of Commerce Bank since January 2014 and Senior Vice President of Commerce Bank prior thereto.
Paula S. Petersen, 55	Executive Vice President of the Company since January 2022 and Senior Vice President of the Company prior thereto. Executive Vice President of Commerce Bank since March 2012.
David L. Roller, 51	Senior Vice President of the Company since July 2016 and Senior Vice President of Commerce Bank since September 2010.
Paul A. Steiner, 50	Controller of the Company since April 2019. He is also Controller of the Company's subsidiary bank, Commerce Bank. Assistant Controller and Director of Tax of the Company prior thereto.

PART II

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

Commerce Bancshares, Inc.

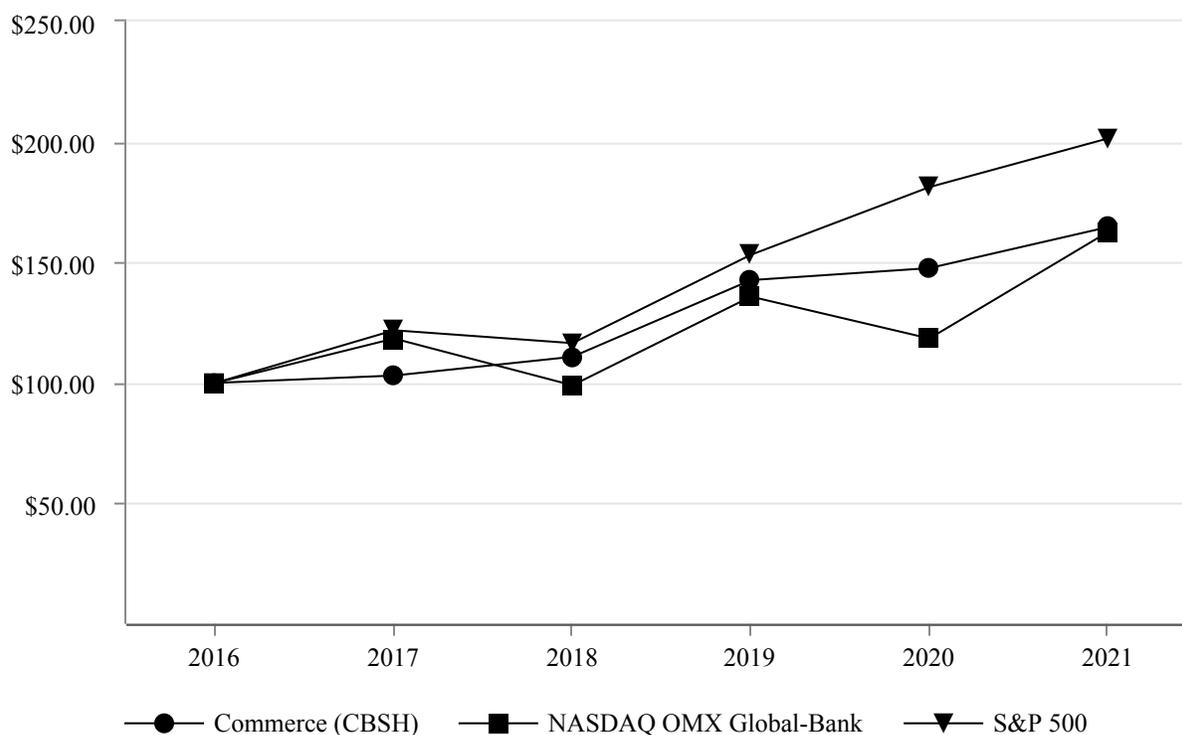
Common Stock Data

Commerce Bancshares, Inc. common shares are listed on the Nasdaq Global Select Market (NASDAQ) under the symbol CBSH. The Company had 3,467 common shareholders of record as of December 31, 2021. Certain of the Company's shares are held in "nominee" or "street" name and the number of beneficial owners of such shares is approximately 128,250.

Performance Graph

The following graph presents a comparison of Company (CBSH) performance to the indices named below. It assumes \$100 invested on December 31, 2016 with dividends reinvested on a cumulative total shareholder return basis.

Five Year Cumulative Total Return



	2016	2017	2018	2019	2020	2021
Commerce (CBSH)	\$ 100.00	\$ 103.03	\$ 110.82	\$ 142.63	\$ 147.60	\$ 164.62
NASDAQ OMX Global-Bank	100.00	118.39	98.98	135.78	118.40	162.58
S&P 500	100.00	121.82	116.47	153.14	181.21	201.40

The Company has a long history of paying dividends. 2021 marked the 53rd consecutive year of growth in our regular common dividend, and the Company has also issued an annual 5% common stock dividend for the past 28 years. However, payment of future dividends is within the discretion of the Board of Directors and will depend, among other factors, on earnings, capital requirements, and the operating and financial condition of the Company. The Board of Directors makes the dividend determination quarterly.

The following table sets forth information about the Company's purchases of its \$5 par value common stock, its only class of common stock registered pursuant to Section 12 of the Exchange Act, during the fourth quarter of 2021.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Program	Maximum Number that May Yet Be Purchased Under the Program
October 1 - 31 2021	120,323	\$71.22	120,323	2,313,366
November 1 - 30 2021	308,770	\$73.09	308,770	2,004,596
December 1 - 31 2021	267,274	\$67.99	267,274	1,737,322
Total	696,367	\$70.81	696,367	1,737,322

The Company's stock purchases shown above were made under authorizations by the Board of Directors. Under the most recent authorization in November 2019 of 5,000,000 shares, 1,737,322 shares remained available for purchase at December 31, 2021.

Item 6. RESERVED

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

Forward-Looking Statements

This report may contain “forward-looking statements” that are subject to risks and uncertainties and include information about possible or assumed future results of operations. Many possible events or factors could affect the future financial results and performance of Commerce Bancshares, Inc. and its subsidiaries (the “Company”). This could cause results or performance to differ materially from those expressed in the forward-looking statements. Words such as “expects”, “anticipates”, “believes”, “estimates”, variations of such words and other similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions which are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecasted in, or implied by, such forward-looking statements. Readers should not rely solely on the forward-looking statements and should consider all uncertainties and risks discussed throughout this report. Forward-looking statements speak only as of the date they are made. The Company does not undertake to update forward-looking statements to reflect circumstances or events that occur after the date the forward-looking statements are made or to reflect the occurrence of unanticipated events. Such possible events or factors include the risk factors identified in Item 1a Risk Factors and the following: changes in economic conditions in the Company’s market area; changes in policies by regulatory agencies, governmental legislation and regulation; fluctuations in interest rates; changes in liquidity requirements; demand for loans in the Company’s market area; changes in accounting and tax principles; estimates made on income taxes; failure of litigation settlement agreements to become final in accordance with their terms; and competition with other entities that offer financial services.

Overview

The Company operates as a super-community bank and offers a broad range of financial products to consumer and commercial customers, delivered with a focus on high-quality, personalized service. The Company is headquartered in Missouri, with its principal offices in Kansas City and St. Louis, Missouri. Customers are served from 287 locations in Missouri, Kansas, Illinois, Oklahoma and Colorado and commercial offices throughout the nation's midsection. A variety of delivery platforms are utilized, including an extensive network of branches and ATM machines, full-featured online banking, a mobile application, and a centralized contact center.

The core of the Company’s competitive advantage is its focus on the local markets in which it operates, its offering of competitive, sophisticated financial products, and its concentration on relationship banking and high-touch service. In order to enhance shareholder value, the Company targets core revenue growth. To achieve this growth, the Company focuses on strategies that will expand new and existing customer relationships, offer opportunities for controlled expansion in additional markets, utilize improved technology, and enhance customer satisfaction.

Various indicators are used by management in evaluating the Company’s financial condition and operating performance. Among these indicators are the following:

- Net income and earnings per share — Net income attributable to Commerce Bancshares, Inc. was \$530.8 million, an increase of 49.9% compared to the previous year. The return on average assets was 1.55% in 2021, and the return on average common equity was 15.37%. Diluted earnings per share increased 55.6% in 2021 compared to 2020.
- Total revenue — Total revenue is comprised of net interest income and non-interest income. Total revenue in 2021 increased \$60.1 million, or 4.5%, from 2020, as net interest income grew \$5.6 million, and non-interest income grew \$54.5 million. Growth in net interest income resulted principally from a decrease in interest expense, while the increase in non-interest income in 2021 was mainly due to growth in trust fees and bank card fees.
- Non-interest expense — Total non-interest expense increased 4.9% this year compared to 2020, mainly due to higher salaries and employee benefits expense, data processing and software expense and other non-interest expense.
- Asset quality — Net loan charge-offs totaled \$18.6 million in 2021, a decrease of \$16.3 million from those recorded in 2020, and averaged .12% of loans compared to .22% in the previous year. Total non-performing assets, which include non-accrual loans and foreclosed real estate, amounted to \$9.3 million at December 31, 2021, compared to \$26.6 million at December 31, 2020, and represented .06% of loans outstanding at December 31, 2021.
- Shareholder return — During 2021, the Company paid cash dividends of \$1.00 per share on its common stock, representing an increase of 2.0% over the previous year. In 2021, the Company issued its 28th consecutive annual 5% common stock dividend, and in February 2022, the Company's Board of Directors authorized an increase of 6.0% in the common cash dividend. The Company purchased 1,807,257 shares in 2021. Total shareholder return, including

the change in stock price and dividend reinvestment, was 10.5%, 13.9%, and 9.9% over the past 5, 10, and 15 years, respectively.

The following discussion and analysis should be read in conjunction with the consolidated financial statements and related notes. The historical trends reflected in the financial information presented below are not necessarily reflective of anticipated future results.

Key Ratios

	2021	2020	2019	2018	2017
<i>(Based on average balances)</i>					
Return on total assets	1.55%	1.20%	1.67%	1.76%	1.28%
Return on common equity	15.37	10.64	14.06	16.16	12.46
Equity to total assets	10.11	11.18	12.20	11.24	10.53
Loans to deposits ⁽¹⁾	56.46	67.73	71.54	69.27	66.18
Non-interest bearing deposits to total deposits	40.46	37.83	32.03	33.43	34.85
Net yield on interest earning assets (tax equivalent basis)	2.58	2.99	3.48	3.53	3.20
<i>(Based on end of period data)</i>					
Non-interest income to revenue ⁽²⁾	40.15	37.87	38.98	37.83	39.88
Efficiency ratio ⁽³⁾	57.64	57.19	56.87	55.58	62.18
Tier I common risk-based capital ratio	14.34	13.71	13.93	14.22	12.65
Tier I risk-based capital ratio	14.34	13.71	14.66	14.98	13.41
Total risk-based capital ratio	15.12	14.82	15.48	15.82	14.35
Tier I leverage ratio	9.13	9.45	11.38	11.52	10.39
Tangible common equity to tangible assets ratio ⁽⁴⁾	9.01	9.92	10.99	10.45	9.84
Common cash dividend payout ratio	23.12	35.32	27.52	23.61	29.52

(1) Includes loans held for sale.

(2) Revenue includes net interest income and non-interest income.

(3) The efficiency ratio is calculated as non-interest expense (excluding intangibles amortization) as a percent of revenue.

(4) The tangible common equity to tangible assets ratio is a measurement which management believes is a useful indicator of capital adequacy and utilization. It provides a meaningful basis for period to period and company to company comparisons, and also assist regulators, investors and analysts in analyzing the financial position of the Company. Tangible common equity and tangible assets are non-GAAP measures and should not be viewed as substitutes for, or superior to, data prepared in accordance with GAAP.

The following table is a reconciliation of the GAAP financial measures of total equity and total assets to the non-GAAP measures of total tangible common equity and total tangible assets.

<i>(Dollars in thousands)</i>	2021	2020	2019	2018	2017
Total equity	\$ 3,448,324	\$ 3,399,972	\$ 3,138,472	\$ 2,937,149	\$ 2,718,184
Less non-controlling interest	11,026	2,925	3,788	5,851	1,624
Less preferred stock	—	—	144,784	144,784	144,784
Less goodwill	138,921	138,921	138,921	138,921	138,921
Less intangible assets*	4,604	4,958	1,785	2,316	2,965
Total tangible common equity (a)	\$ 3,293,773	\$ 3,253,168	\$ 2,849,194	\$ 2,645,277	\$ 2,429,890
Total assets	\$36,689,088	\$32,922,974	\$26,065,789	\$25,463,842	\$24,833,415
Less goodwill	138,921	138,921	138,921	138,921	138,921
Less intangible assets*	4,604	4,958	1,785	2,316	2,965
Total tangible assets (b)	\$36,545,563	\$32,779,095	\$25,925,083	\$25,322,605	\$24,691,529
Tangible common equity to tangible assets ratio (a)/(b)	9.01%	9.92%	10.99%	10.45%	9.84%

* Intangible assets other than mortgage servicing rights.

Results of Operations

(Dollars in thousands)	2021	2020	2019	\$ Change		% Change	
				21-'20	20-'19	21-'20	20-'19
Net interest income	\$ 835,424	\$ 829,847	\$ 821,293	\$ 5,577	\$ 8,554	.7%	1.0%
Provision for credit losses	66,326	(137,190)	(50,438)	(203,516)	86,752	(148.3)	172.0
Non-interest income	560,393	505,867	524,703	54,526	(18,836)	10.8	(3.6)
Investment securities gains, net	30,059	11,032	3,626	19,027	7,406	N.M.	N.M.
Non-interest expense	(805,901)	(768,378)	(767,398)	37,523	980	4.9	.1
Income taxes	(145,711)	(87,293)	(109,074)	58,418	(21,781)	66.9	(20.0)
Income (expense) attributable to non-controlling interest	(9,825)	172	(1,481)	9,997	(1,653)	N.M.	N.M.
Net income attributable to Commerce Bancshares, Inc.	530,765	354,057	421,231	176,708	(67,174)	49.9	(15.9)
Preferred stock dividends	—	(11,966)	(9,000)	(11,966)	(2,966)	(100.0)	33.0
Net income available to common shareholders	\$ 530,765	\$ 342,091	\$ 412,231	\$ 188,674	\$ (70,140)	55.2%	(17.0)%

N.M. - Not meaningful.

Net income attributable to Commerce Bancshares, Inc. (net income) for 2021 was \$530.8 million, an increase of \$176.7 million, or 49.9%, compared to \$354.1 million in 2020. Diluted income per common share was \$4.31 in 2021, compared to \$2.77 in 2020. The increase in net income resulted from a decrease of \$203.5 million in the provision for credit losses, as well as an increase of \$54.5 million in non-interest income. These increases in net income were partly offset by increases in non-interest expense and income tax expense of \$37.5 million and \$58.4 million, respectively. The return on average assets was 1.55% in 2021 compared to 1.20% in 2020, and the return on average common equity was 15.37% in 2021 compared to 10.64% in 2020. At December 31, 2021, the ratio of tangible common equity to assets decreased to 9.01%, compared to 9.92% at year end 2020.

During 2021, net interest income grew mainly due to a decrease of \$29.9 million in interest expense on deposits and borrowings, due to lower average rates paid, coupled with an increase of \$19.5 million in interest income earned on investment securities, mainly due to higher average balances. These increases in net interest income were partly offset by a decline of \$41.5 million in interest earned on loans, mainly due to lower rates earned. Total rates earned on average interest earning assets fell 53 basis points this year, while funding costs for deposits and borrowings decreased 19 basis points. The provision for credit losses decreased due to an improved credit outlook and the release of loan loss reserves provided for anticipated credit losses in the prior year, which did not occur. Net loan charge-offs decreased \$16.3 million in 2021 compared to 2020, mainly due to lower credit card loan net charge-offs and net recoveries on business loans.

Non-interest income grew 10.8% in 2021, mainly due to growth in trust and net bank card fee income. Net gains on investment securities in 2021 were comprised mainly of net fair value gains on the Company's private equity investment portfolio, partly offset by net losses on bond sales. Non-interest expense increased \$37.5 million in 2021 compared to 2020, largely due to higher salaries and benefits expense and data processing and software expense, as well as lower deferred loan origination costs and non-recurring litigation settlement costs recorded in the third quarter of 2021.

Net income for 2020 was \$354.1 million, a decrease of \$67.2 million, or 15.9%, compared to \$421.2 million in 2019. Diluted income per common share was \$2.77 in 2020, compared to \$3.25 in 2019. The decline in net income resulted from an increase of \$86.8 million in the provision for credit losses, as well as a decrease of \$18.8 million in non-interest income. These decreases to net income were partly offset by increases of \$8.6 million in net interest income and \$7.4 million in investment securities gains, coupled with decreases of \$21.8 million in income taxes and \$1.7 million in non-controlling interest expense. The return on average assets was 1.20% in 2020 compared to 1.67 in 2019, and the return on average common equity was 10.64% in 2020 compared to 14.06% in 2019. At December 31, 2020, the ratio of tangible common equity to assets decreased to 9.92%, compared to 10.99% at year end 2019.

As compared to 2019, the growth in net interest income in 2020 resulted mainly from an increase of \$24.7 million in interest income on securities purchased under agreements to resell, mainly due to higher rates earned, coupled with a decrease of \$60.6 million in interest expense on deposits and borrowings, due to lower rates paid. These increases in net interest income were partly offset by declines in interest earned on loans and investment securities, resulting mainly from lower yields. Total rates earned on average earning assets fell 76 basis points in 2020, while funding costs for deposits and borrowings decreased 41 basis points. The provision for credit losses totaled \$137.2 million, reflecting an increase in the provision for credit losses on the Company's loan portfolio and liability for unfunded loan commitments, resulting from deteriorating economic conditions

driven by the COVID-19 pandemic. Net loan charge-offs decreased \$14.8 million in 2020 compared to 2019, mainly due to lower credit card loan net charge-offs.

Non-interest income fell 3.6% in 2020, mainly due to a one-time gain of \$11.5 million resulting from the sale of the Company's corporate trust business in the fourth quarter of 2019, coupled with a decline in net bank card fees. Net investment securities gains of \$11.0 million were recorded in 2020 and were comprised mainly of net gains realized on sales of mortgage-backed securities. Non-interest expense grew \$980 thousand in 2020 compared to 2019, largely due to higher salaries and benefits expense, mostly offset by higher deferred loan originations costs and lower supplies and communication expense and travel and entertainments expense.

The Company distributed a 5% stock dividend for the 28th consecutive year on December 17, 2021. All per share and average share data in this report has been restated for the 2021 stock dividend.

Critical Accounting Estimates and Related Policies

The Company's consolidated financial statements are prepared based on the application of certain accounting policies, the most significant of which are described in Note 1 to the consolidated financial statements. Certain of these policies require numerous estimates and strategic or economic assumptions that may prove inaccurate or be subject to variations which may significantly affect the Company's reported results and financial position for the current period or future periods. The use of estimates, assumptions, and judgments are necessary when financial assets and liabilities are required to be recorded at, or adjusted to reflect, fair value. Current economic conditions may require the use of additional estimates, and some estimates may be subject to a greater degree of uncertainty due to the current instability of the economy. The Company has identified several policies as being critical because they require management to make particularly difficult, subjective and/or complex judgments about matters that are inherently uncertain and because of the likelihood that materially different amounts would be reported under different conditions or using different assumptions. These estimates and related policies are the Company's allowance for credit losses and fair value measurement policies.

Allowance for Credit Losses

The Company's Allowance for Credit Losses policies govern the processes and procedures used to estimate the collectability of its loan portfolio and unfunded lending commitments, and the potential for credit losses in its available for sale investment portfolio.

Allowance for Credit Losses – Loans and Unfunded Lending Commitments

The Company performs periodic and systematic detailed reviews of its loan portfolio and unfunded lending commitments to assess overall collectability. The level of the allowance for credit losses on loans and unfunded lending commitments reflects the Company's estimate of the losses expected in the loan portfolio and unfunded lending commitments over the assets' contractual term.

The allowance for credit loss is an estimate that is subject to uncertainty due to the various assumptions and judgements used in the estimation process.

The allowance for credit losses is measured on a collective (pool) basis. Loans are aggregated into pools based on similar risk characteristics including borrower type, collateral type and expected credit loss patterns. Loans that do not share similar risk characteristics, primarily large loans on non-accrual status, are evaluated on an individual basis.

The allowance for credit losses is measured using an average historical loss model which incorporates relevant information about past events (including historical credit loss experience on loans with similar risk characteristics), current conditions, and an economic forecast that may affect the collectability of the remaining cash flows over the contractual term of the loans. The calculated loss rate is increased or decreased to reflect expectations of future losses given a single path economic forecast. These adjustments to the loss rate are based on results from various regression models projecting the impact of the macroeconomic variables. The forecast is used for a reasonable and supportable period before reverting to historical averages using a straight-line method.

Additionally, the allowance for credit losses considers other qualitative factors not included in historical loss rates or macroeconomic forecast such as changes in portfolio composition, underwriting practices, or significant unique events or conditions.

Adjustments to the allowance for credit losses are made by increases to or reductions in the provision for credit losses, which are reflected in the consolidated statements of income.

Assumptions, Judgments, and Uncertainties: The uncertainty in the estimation of the allowance for credit losses is created because key assumptions and judgements are applied throughout the process. Key assumptions include segmentation of the portfolio into pools, calculations of life of a loan using a combination of contractual terms and expected prepayment speeds and forecast of macroeconomic conditions. The Company utilizes a third-party macro-economic forecast that continuously changes due to economic conditions and events. The single path economic forecast includes key macroeconomic variables including GDP, disposable income, unemployment rate, various interest rates, consumer price index (CPI) inflation rate, housing price index (HPI), commercial real estate price index (CREPI) and market volatility. Each reporting period, the base macroeconomic forecast scenario is evaluated to ensure it is not inconsistent with management's expectations. Changes in the forecast cause fluctuations in the estimates of the allowance for credit losses on loans and the liability for unfunded lending commitments. Potential changes in any one economic variable *may or may not* affect the overall allowance because a variety of economic variables and inputs are considered in estimating the allowance, and changes in those variables and inputs may not occur at the same rate, may not be consistent across product types and may have offsetting impacts to other changing variables and inputs.

Data points such as loan mix, level of loan balances outstanding, portfolio performance, line utilization trends and risk ratings change throughout the life of a portfolio which could cause changes to the expected credit losses.

Qualitative factors not included in historical information or macroeconomic forecast require significant judgement to identify and determine how to apply to the estimate for credit losses. The qualitative factors continuously evolve in reaction to other changing assumptions, data inputs and industry trends.

The Company uses its best judgment to assess the macroeconomic forecast, key assumptions and internal and external data in estimating the allowance for credit losses on loans and the liability for unfunded lending commitments. These estimates are subject to continuous refinement based on changes in the underlying external and internal data.

Impact if actual results differ from assumptions: The allowance for credit losses represents management's best estimate of expected current credit losses in the loan portfolio and within the Company's unfunded lending commitments, but changes in the inputs and assumptions described above could significantly impact the calculated estimated credit losses. Therefore, actual credit losses may differ significantly from estimated results. Significant deterioration in circumstances relating to loan quality and economic conditions could result in a requirement for additional allowance. Likewise, an upturn in loan quality and improved economic conditions may allow a reduction in the required allowance. In either instance, changes could have a significant impact on our financial condition and results of operations.

Allowance for Credit Losses - Available for Sale Debt Securities

The level of the allowance for credit losses on available for sale securities reflects the Company's estimate of the losses expected in the available for sale debt security portfolio. In order to estimate the allowance for credit losses on available for sale debt securities, the Company performs quarterly reviews of its investment portfolio to identify securities in an unrealized loss position. If the unrealized loss is not expected to be recovered, the Company performs further analyses to determine whether any portion of the unrealized loss indicates that a credit loss exists.

Changes to the allowance for credit losses are made by changes to or reductions in the provision for credit losses, which are reflected in the consolidated statements of income.

Assumptions, Judgments, and Uncertainties: The Company's model for establishing its allowance for credit losses uses cash flows projected to be received over the estimated life of the securities, discounted to present value, and compared to the current amortized cost bases of the securities. Securities for which fair value is less than amortized cost are reviewed for impairment. Special emphasis is placed on securities whose credit rating has fallen below Baa3 (Moody's) or BBB- (Standard & Poor's), whose fair values have fallen more than 20% below purchase price, or who have been identified based on management's judgment. These securities are placed on a watch list and cash flow analyses are prepared on an individual security basis. Credit impairment is determined using input factors such as contractual payments required, expected delinquency rates, credit support from other tranches, prepayment speeds, collateral loss severity rates, and various other information related to the underlying collateral.

Impact if actual results differ from assumptions: The allowance for credit losses represents management's best estimate of expected credit losses in the available for sale debt portfolio, but significant deterioration in interest rates and economic

conditions could result in a requirement for additional allowance. Likewise, an increase in interest rates and improved economic conditions may allow a reduction in the required allowance. In either instance, anticipated changes could have a significant impact on our financial condition and results of operations.

Fair Value Measurement

Investment securities, including available-for-sale debt, trading, equity and other securities, residential mortgage loans held for sale, derivatives and deferred compensation plan assets and associated liabilities are recorded at fair value on a recurring basis. Additionally, from time to time, other assets and liabilities may be recorded at fair value on a nonrecurring basis, such as loan values that have been reduced based on the fair value of the underlying collateral, other real estate (primarily foreclosed property), non-marketable equity securities and certain other assets and liabilities. These nonrecurring fair value adjustments typically involve write-downs of individual assets or application of lower of cost or fair value accounting.

Assumptions, Judgments, and Uncertainties: Fair value is an estimate of the exchange price that would be received to sell an asset or paid to transfer a liability in an orderly transaction (i.e., not a forced transaction, such as a liquidation or distressed sale) between market participants at the measurement date and is based on the assumptions market participants would use when pricing an asset or liability. Fair value measurement and disclosure guidance establishes a three-level hierarchy for disclosure of assets and liabilities recorded at fair value.

Fair value is measured based on a variety of inputs. Fair value may be based on quoted market prices for identical assets or liabilities traded in active markets (Level 1 valuations). If market prices are not available, quoted market prices for similar instruments traded in active markets, quoted prices for identical or similar instruments in markets that are not active, or model-based valuation techniques for which all significant assumptions are observable in the market are used (Level 2 valuations). Where observable market data is not available, the valuation is generated from model-based techniques that use significant assumptions not observable in the market (Level 3 valuations). Unobservable assumptions reflect the Company's estimates for assumptions that market participants would use in pricing the asset or liability. Valuation techniques typically include discounted cash flow models and similar techniques, but may also include the use of market prices of assets or liabilities that are not directly comparable to the subject asset or liability.

The selection and weighting of the various fair value techniques may result in a fair value higher or lower than carrying value. Considerable judgment may be involved in determining the amount that is most representative of fair value.

For assets and liabilities recorded at fair value, the Company looks to active and observable market data when developing fair value measurements for those items where there is an active market. Certain assets and liabilities are not actively traded in observable markets, and the Company must use alternative valuation techniques to derive an estimated fair value measurement. In doing so, the Company may be required to make judgments about assumptions market participants would use in estimating the fair value of the financial instrument. The assumptions used to determine fair value adjustments are regularly evaluated by management for relevance under current facts and circumstances.

Changes in market conditions may reduce the availability of quoted prices or observable data. For example, reduced liquidity in the capital markets or changes in secondary market activities could result in observable market inputs becoming unavailable. When market data is not available, the Company uses valuation techniques requiring more management judgment to estimate the appropriate fair value.

Impairment analysis also relates to long-lived assets and core deposit and other intangible assets. An impairment loss is recognized if the carrying amount of the asset is not likely to be recoverable and exceeds its fair value. In determining the fair value, management uses models and applies the techniques and assumptions previously discussed.

At December 31, 2021, assets and liabilities measured using observable inputs that are classified as either Level 1 or Level 2 represented 98.9% and 99.2% of total assets and liabilities recorded at fair value, respectively. Valuations generated from model-based techniques that use at least one significant assumption not observable in the market are considered Level 3, and the Company's Level 3 assets totaled \$150.2 million, or 1.0% of total assets recorded at fair value on a recurring basis. The fair value hierarchy, the extent to which fair value is used to measure assets and liabilities, and the valuation methodologies and key inputs used are discussed in Note 17 on Fair Value Measurements.

Impact if actual results differ from assumptions: Changes in fair value are recorded either in earnings or accumulated other comprehensive income. Adjustments in the inputs and assumptions described above could significantly impact the fair values of the Company's assets and liabilities and have a significant impact on our financial condition and results of operations.

Net Interest Income

Net interest income, the largest source of revenue, results from the Company's lending, investing, borrowing, and deposit gathering activities. It is affected by both changes in the level of interest rates and changes in the amounts and mix of interest earning assets and interest bearing liabilities. The following table summarizes the changes in net interest income on a fully taxable equivalent basis, by major category of interest earning assets and interest bearing liabilities, identifying changes related to volumes and rates. Changes not solely due to volume or rate changes are allocated to rate.

<i>(In thousands)</i>	2021			2020		
	Change due to		Total	Change due to		Total
	Average Volume	Average Rate		Average Volume	Average Rate	
Interest income, fully taxable equivalent basis						
Loans:						
Business	\$ (16,872)	\$ 7,591	\$ (9,281)	\$ 48,234	\$ (54,293)	\$ (6,059)
Real estate - construction and land	7,585	(5,502)	2,083	2,605	(13,688)	(11,083)
Real estate - business	1,744	(7,495)	(5,751)	4,463	(22,018)	(17,555)
Real estate - personal	6,459	(9,027)	(2,568)	17,311	(8,080)	9,231
Consumer	1,859	(11,594)	(9,735)	1,736	(8,054)	(6,318)
Revolving home equity	(1,806)	(776)	(2,582)	(1,199)	(4,600)	(5,799)
Consumer credit card	(10,758)	(3,672)	(14,430)	(11,772)	(3,278)	(15,050)
Total interest on loans	(11,789)	(30,475)	(42,264)	61,378	(114,011)	(52,633)
Loans held for sale	96	(76)	20	(144)	(205)	(349)
Investment securities:						
U.S. government and federal agency obligations	336	15,183	15,519	(1,727)	(1,872)	(3,599)
Government-sponsored enterprise obligations	(1,726)	(440)	(2,166)	(2,055)	844	(1,211)
State and municipal obligations	12,259	(6,798)	5,461	10,728	(6,830)	3,898
Mortgage-backed securities	24,048	(38,707)	(14,659)	30,634	(44,606)	(13,972)
Asset-backed securities	27,557	(24,611)	2,946	2,591	(10,310)	(7,719)
Other securities	7,760	4,128	11,888	2,855	(749)	2,106
Total interest on investment securities	70,234	(51,245)	18,989	43,026	(63,523)	(20,497)
Federal funds sold	4	(3)	1	(48)	(4)	(52)
Securities purchased under agreements to resell	20,355	(23,625)	(3,270)	2,342	22,407	24,749
Interest earning deposits with banks	2,610	(1,681)	929	16,944	(21,369)	(4,425)
Total interest income	81,510	(107,105)	(25,595)	123,498	(176,705)	(53,207)
Interest expense						
Interest bearing deposits:						
Savings	294	(218)	76	225	(193)	32
Interest checking and money market	2,697	(13,115)	(10,418)	3,360	(25,253)	(21,893)
Certificates of deposit of less than \$100,000	(957)	(2,782)	(3,739)	(314)	(1,157)	(1,471)
Certificates of deposit of \$100,000 and over	(1,410)	(8,961)	(10,371)	(617)	(13,380)	(13,997)
Federal funds purchased	(646)	(131)	(777)	(2,612)	(1,926)	(4,538)
Securities purchased under agreements to resell	1,366	(5,034)	(3,668)	4,059	(22,845)	(18,786)
Other borrowings	(1,029)	5	(1,024)	1,806	(1,729)	77
Total interest expense	315	(30,236)	(29,921)	5,907	(66,483)	(60,576)
Net interest income, fully taxable equivalent basis	\$ 81,195	\$ (76,869)	\$ 4,326	\$ 117,591	\$ (110,222)	\$ 7,369

Net interest income totaled \$835.4 million in 2021, increasing \$5.6 million, or .7%, compared to \$829.8 million in 2020. On a tax equivalent (T/E) basis, net interest income totaled \$847.1 million, and increased \$4.3 million over 2020. This increase was mainly due to a decline of \$29.9 million in interest expense on deposits and borrowings, due to lower average rates paid, coupled with an increase of \$19.0 million in interest earned on investment securities, mainly due to higher average balances. These increases to net interest income (T/E) were partly offset by lower interest earned on loans, which declined \$42.3 million, mainly due to lower rates earned. The net yield on earning assets (T/E) was 2.58% in 2021 compared with 2.99% in 2020.

During 2021, loan interest income (T/E) fell \$42.3 million from 2020 mainly due to a decline in rates earned for most loan categories and lower average business and consumer credit card loan balances. The average tax equivalent rate earned on the loan portfolio decreased 21 basis points to 3.67% in 2021 compared to 3.88% in 2020. Average loan balances decreased \$232.5 million, or 1.5%, this year. The decrease in consumer credit card loan interest income was the main driver of overall lower interest income. Consumer credit card loan interest declined \$14.4 million due to lower average balances of \$91.4 million and a decrease of 64 basis points in the average rate earned. Business loan interest income declined \$9.3 million mainly due to a decrease of \$548.7 million in average balances, partly offset by a 13 basis point increase in the average rate earned. Average balances of business loans included average balances of \$854.1 million in Paycheck Protection Program (PPP) loans at December 31, 2021, which was a decline of \$204.9 million from balances of \$1.1 billion at December 31, 2020. The average rate earned on PPP loans increased 193 basis points to 4.81% in 2021 compared to 2.88% in 2020, partly offsetting the decline in average balances. During 2021, the Company recognized \$41.0 million in interest income on PPP loans. As of December 31, 2021, 93% of the PPP loans originated by the Company had been forgiven, and the Company expects almost all of the remaining loans to be forgiven in 2022. Business real estate loan interest was lower by \$5.8 million in 2021 compared to 2020 as a result of a decrease of 25 basis points in the average rate, partly offset by higher average balances of \$46.9 million. Interest on personal real estate loans decreased \$2.6 million as the average rate earned declined 32 basis points, while average balances increased \$178.4 million. Interest on consumer loans declined \$9.7 million from the prior year as the average rate earned decreased 58 basis points, but was partly offset by growth in average balances of \$42.4 million. These decreases to loan interest income (T/E) were partly offset by an increase of \$2.1 million in interest earned on construction and land loans. This increase resulted from higher average balances of \$187.7 million, partly offset by a 48 basis point decrease in the average rate earned.

Tax equivalent interest income on total investment securities increased \$19.0 million during 2021, as average balances grew \$3.2 billion, while the average rate earned decreased 38 basis points. The average rate on the total investment securities portfolio was 1.81% in 2021 compared to 2.19% in 2020, while the average balance of the total investment securities portfolio (excluding unrealized fair value adjustments on available for sale debt securities) was \$13.5 billion in 2021 compared to an average balance of \$10.3 billion in 2020. The increase in interest income was mainly due to higher interest income earned on U.S. government securities, state and municipal obligations, asset-backed securities and other securities. Interest earned on U.S. government securities grew \$15.5 million and was mainly impacted by growth of the same amount in inflation income on treasury inflation-protected securities (TIPS). Average balances of U.S. government securities increased \$15.1 million and the average rate earned grew 191 basis points. The increase in interest earned on state and municipal obligations resulted mainly from growth of \$453.2 million in average balances, partly offset by a 33 basis point decrease in the average rate earned. Interest on asset-backed securities increased \$2.9 million mainly due to growth of \$1.4 billion in the average balance, partly offset by an 87 basis point decrease in the average rate earned. Other securities interest increased \$11.9 million mainly due to higher interest earned on equity securities, largely as a result of one-time dividend payments of \$5.5 million received on private equity portfolio investments in 2021. Partly offsetting these increases in interest income was a decline of \$14.7 million in interest income on mortgage-backed securities, due to a decrease of 56 basis points in the average rate earned, partly offset by higher average balances of \$1.3 billion.

Interest on securities purchased under resell agreements decreased \$3.3 million compared to 2020 due to a decrease of 185 basis points in the average rate, partly offset by growth in balances of \$425.8 million. Interest earned on deposits with banks increased \$929 thousand over 2020, mainly due to growth in average balances of \$1.3 billion, partly offset by a seven basis point decrease in the average rate earned.

During 2021, interest expense on deposits decreased \$24.5 million from 2020 and resulted mainly from a 17 basis point decrease in the overall average rate paid on deposits. Interest expense on interest checking and money market accounts decreased \$10.4 million mainly due to lower rates paid, which fell 10 basis points, but was partly offset by higher average balances of \$1.8 billion. Interest expense on certificates of deposit over \$100,000 declined \$10.4 million, mainly due to a 74 basis point decline in the average rate paid. The overall rate paid on total deposits decreased from .24% in 2020 to .07% in the current year. Interest expense on borrowings decreased \$5.5 million mainly due to lower rates paid on securities sold under repurchase agreements, partly offset by higher average balances. The overall average rate incurred on all interest bearing liabilities was .07% in 2021, compared to .26% in 2020.

During 2020, net interest income totaled \$829.8 million, increasing \$8.6 million, or 1.0%, compared to \$821.3 million in 2019. On a tax equivalent (T/E) basis, net interest income totaled \$842.8 million, and increased \$7.4 million over 2019. This increase was mainly due to a decline of \$60.6 million in interest expense on deposits and borrowings, due to lower average rates paid, as well as an increase of \$24.7 million in interest earned on securities purchased under agreements to resell. These increases to net interest income (T/E) were largely offset by lower interest earned on loans and investment securities, which declined \$52.6 million and \$20.5 million, respectively, mainly due to lower rates earned. The net yield on earning assets (T/E) was 2.99% in 2020 compared with 3.48% in 2019.

During 2020, loan interest income (T/E) fell \$52.6 million from 2019 mainly due to lower rates earned, partly offset by higher average balances for business, personal real estate, business real estate, consumer and construction and land loan categories. The average tax equivalent rate earned on the loan portfolio decreased 83 basis points to 3.88% in 2020 compared to 4.71% in 2019. The Federal Reserve lowered short-term interest rates during the first quarter of 2020, which impacted the Company's interest income on loans, as many of its loans contain variable interest rate terms. Partly offsetting lower interest rates were increases in average loan balances of \$1.7 billion, or 11.8%, this year. The largest decrease in loan interest income (T/E) occurred in business real estate loans, which was lower by \$17.6 million as a result of a decline in the average rate earned of 74 basis points, partly offset by growth of \$100.1 million in average balances. Business loan interest income declined \$6.1 million mainly due to an 81 basis point decrease in the average rate earned, partly offset by an increase of \$1.2 billion in average balances. Average balances of business loans included average balances of \$1.1 billion in PPP loans at December 31, 2020. Interest income on consumer credit card loans declined \$15.1 million as a result of a decrease in the average balance of \$96.0 million and the average rate of 49 basis points. Construction and land loan interest income decreased \$11.1 million, mainly due to a 143 basis point decrease in the average rate earned, partly offset by growth in average balances of \$47.6 million. Interest on consumer loans declined \$6.3 million from the prior year as the average rate earned decreased 41 basis points, but was partly offset by growth in average balances of \$36.3 million. These decreases to loan interest income (T/E) were partly offset by an increase of \$9.2 million in interest earned on personal real estate loans. This increase resulted from higher average balances of \$440.5 million, partly offset by a 31 basis point decrease in the average rate earned.

Tax equivalent interest income on total investment securities decreased \$20.5 million during 2020, as the average rate earned decreased 62 basis points, while average balances grew \$1.5 billion. The average rate on the total investment securities portfolio was 2.19% in 2020 compared to 2.81% in 2019, while the average balance of the total investment securities portfolio (excluding unrealized fair value adjustments on available for sale debt securities) was \$10.3 billion in 2020 compared to an average balance of \$8.7 billion in 2019. The decrease in interest income was mainly due to lower interest income earned on mortgage-backed securities, asset-backed securities, U.S. government securities and government-sponsored enterprise (GSE) obligations. Interest income on mortgage-backed securities decreased \$14.0 million, due to a decrease of 77 basis points in the average rate earned, partly offset by higher average balances of \$1.1 billion. Interest on asset-backed securities decreased \$7.7 million mainly due to a 70 basis point decrease in the average rate earned, partly offset by a \$94.9 million increase in the average balance. Interest earned on U.S. government securities fell \$3.6 million and was mainly impacted by a decline of \$3.0 million in inflation income on TIPS. Average balances of U.S. government securities declined \$70.2 million and the average rate earned decreased 24 basis points. Interest income on GSE's decreased \$1.2 million, due to a decline in average balances of \$86.3 million, partly offset by an increase of 80 basis points in the average rate earned. Partly offsetting these decreases in interest income was growth of \$3.9 million and \$1.8 million in interest earned on state and municipal obligations and other debt securities, respectively. The growth in interest earned on state and municipal obligations resulted mainly from an increase of \$341.5 million in average balances, partly offset by a 44 basis point decrease in the average rate earned. Other debt securities interest increased due to growth of \$111.4 million in average balances, partly offset by a decline of 27 basis points in the average rate earned.

Interest on securities purchased under resell agreements increased \$24.7 million in 2020 due to an increase in the average rate of 263 basis points, as these assets were structured with floor spreads to protect against falling interest rates. Of the \$850.0 million in securities purchased under agreements to resell held by the Company throughout 2020, \$450.0 million of those agreements matured in 2021. Interest earned on deposits with banks fell \$4.4 million from 2019, mainly due to a 192 basis point decrease in the average rate earned, partly offset by an increase in average balances of \$799.3 million.

During 2020, interest expense on deposits decreased \$37.3 million from 2019 and resulted mainly from a 30 basis point decrease in the overall average rate paid on deposits. Interest expense on interest checking and money market accounts decreased \$21.9 million due to lower rates paid, which fell 21 basis points, while interest expense on certificates of deposit over \$100,000 declined \$14.0 million, mainly due to a 98 basis point decline in the average rate paid. The overall rate paid on total deposits decreased from .54% in 2019 to .24% in 2020. Interest expense on borrowings decreased \$23.4 million mainly due to lower rates paid on federal funds purchased and customer repurchase agreements. The overall average rate incurred on all interest bearing liabilities was .26% in 2020, compared to .67% in 2019.

Provision for Credit Losses

The provision for credit losses is comprised of provisions for credit losses on loans and for unfunded lending commitments and is recorded to adjust the allowance for credit losses on loans and the liability for unfunded lending commitments to a level deemed adequate by management based on the factors mentioned in the “Allowance for Credit Losses on Loans and Liability for Unfunded Lending Commitments” section of this discussion. The provision for credit losses was a recovery of \$66.3 million in 2021, which was a decrease of \$203.5 million from the 2020 provision of \$137.2 million.

The provision for credit losses on loans in 2021 was a recovery of \$52.2 million, compared to a provision for credit losses on loans of \$116.1 million in 2020. The allowance for credit losses on loans totaled \$150.0 million at December 31, 2021, a decrease of \$70.8 million compared to the prior year, and represented .99% of loans at year end 2021, compared to 1.35% at December 31, 2020.

The provision for unfunded lending commitments was a recovery of \$14.1 million during 2021, compared to a provision of \$21.1 million in 2020, and the liability for unfunded lending commitments was \$24.2 million at December 31, 2021, compared to \$38.3 million at December 31, 2020.

Non-Interest Income

<i>(Dollars in thousands)</i>	2021	2020	2019	% Change	
				21-'20	20-'19
Bank card transaction fees	\$ 167,891	\$ 151,797	\$ 167,879	10.6%	(9.6%)
Trust fees	188,227	160,637	155,628	17.2	3.2
Deposit account charges and other fees	97,217	93,227	95,983	4.3	(2.9)
Capital market fees	15,943	14,582	8,146	9.3	79.0
Consumer brokerage services	18,362	15,095	15,804	21.6	(4.5)
Loan fees and sales	29,720	26,684	15,767	11.4	69.2
Other	43,033	43,845	65,496	(1.9)	(33.1)
Total non-interest income	\$ 560,393	\$ 505,867	\$ 524,703	10.8%	(3.6%)
Non-interest income as a % of total revenue*	40.1%	37.9%	39.0%		
Total revenue per full-time equivalent employee	\$ 305.6	\$ 280.3	\$ 277.1		

* Total revenue is calculated as net interest income plus non-interest income.

Below is a summary of net bank card transaction fees for the years ended December 31, 2021, 2020 and 2019, respectively.

<i>(Dollars in thousands)</i>	2021	2020	2019	% Change	
				21-'20	20-'19
Net debit card fees	\$ 41,010	\$ 37,644	\$ 40,025	8.9%	(5.9%)
Net credit card fees	15,144	13,393	14,177	13.1	(5.5)
Net merchant fees	20,036	18,386	19,289	9.0	(4.7)
Net corporate card fees	91,701	82,374	94,388	11.3	(12.7)
Total bank card transaction fees	\$ 167,891	\$ 151,797	\$ 167,879	10.6%	(9.6%)

Non-interest income totaled \$560.4 million, an increase of \$54.5 million, or 10.8%, compared to \$505.9 million in 2020. Bank card fees increased \$16.1 million, or 10.6%, over the prior year, due to increases in net corporate card fees of \$9.3 million, net debit card fees of \$3.4 million, net credit card fees of \$1.8 million and net merchant fees of \$1.7 million. The growth in net corporate and credit card fees over the prior year was due to higher interchange income, partly offset by higher rewards expense. Net debit card fees increased due to higher interchange income, partly offset by an increase in network expense. Net merchant fees were up due to an increase in merchant discount fees, partly offset by higher rewards expense. Trust fee income increased \$27.6 million, or 17.2%, as a result of continued growth in private client trust fees (up 19.1%) and higher institutional trust fees (up 11.0%). Private client trust fees comprised 78.4% of trust fee income in 2021. The market value of total customer trust assets totaled \$69.3 billion at year end 2021, which was an increase of 13.2% over year end 2020 balances. Deposit account fees increased \$4.0 million, or 4.3%, mainly due to growth in corporate cash management fees and overdraft and return item fees of \$3.3 million and \$1.2 million, respectively, partly offset by lower personal deposit account service charge fees of \$1.2 million. In 2021, corporate cash management fees comprised 51.5% of total deposit fees, while overdraft fees comprised 24.8% of total deposit fees. Capital market fees grew \$1.4 million, or 9.3%, compared to the prior year, while revenue from consumer brokerage services increased \$3.3 million, or 21.6%, due to growth in advisory and annuity

fees. Loan fees and sales increased \$3.0 million, or 11.4%, mainly due to growth in mortgage banking revenue and loan commitment fees. Mortgage banking revenue was stronger in the first half of 2021 than during the second half of the year. As interest rates and competition for mortgage loans increased during 2021, loan fees and sales declined in the second half of 2021. Other non-interest income decreased \$812 thousand, or 1.9%, from the prior year mainly due to lower cash sweep commissions of \$7.9 million and a \$2.2 million loss recorded on an equity method investment in 2021. These decreases were partly offset by gains of \$5.6 million recorded mainly on sales of branch properties during 2021 and increases in interest rate swap fees and check sales and wire fees of \$2.2 million and \$1.0 million, respectively.

During 2020, non-interest income totaled \$505.9 million, a decrease of \$18.8 million, or 3.6%, compared to \$524.7 million in 2019. Bank card fees decreased \$16.1 million, or 9.6%, from 2019, due to declines in net corporate card fees of \$12.0 million, net debit card fees of \$2.4 million, net merchant fees of \$903 thousand and net credit card fees of \$784 thousand. The decline in net corporate card fees from 2019 was due to lower transaction volume, partly offset by lower network and rewards expense. The decline in net credit and debit card fees was mainly due to lower interchange income. The decline in net credit card fees was partly offset by lower rewards expense. Net merchant fees fell due to lower merchant discount fees, partly offset by higher interchange income and lower network expense. Trust fee income increased \$5.0 million, or 3.2%, as a result of growth in private client trust fees (up 4.3%), which comprised 77.2% of trust fee income in 2020. The market value of total customer trust assets totaled \$61.2 billion at year end 2020, which was an increase of 7.9% over year end 2019 balances. Deposit account fees decreased \$2.8 million, or 2.9%, mainly due to a decline of \$7.6 million in overdraft and return item fees, partly offset by growth of \$5.3 million in corporate cash management fees. In 2020, corporate cash management fees comprised 50.2% of total deposit fees, while overdraft fees comprised 24.6% of total deposit fees. Capital market fees grew \$6.4 million, or 79.0%, compared to 2019, mostly due to higher sales volume, while consumer brokerage services fees fell \$709 thousand, or 4.5%. Loan fees and sales increased \$10.9 million, or 69.2%, mainly due to growth in mortgage banking revenue. Mortgage banking revenue totaled \$20.7 million in 2020 compared to \$10.8 million in 2019 and increased as a result of higher loan originations in 2020. Other non-interest income decreased \$21.7 million, or 33.1%, mainly due to a one-time gain of \$11.5 million resulting from the sale of the Company's corporate trust business in the fourth quarter of 2019. In addition, cash sweep commissions and interest rate swap fees decreased \$2.1 million and \$4.4 million, respectively.

Investment Securities Gains (Losses), Net

<i>(In thousands)</i>	2021	2020	2019
Net gains (losses) on sales of available for sale debt securities	\$ (3,284)	\$ 21,096	\$ (214)
Net gains on sales and fair value adjustments of equity securities	187	39	3,606
Net gains (losses) on sales and fair value adjustments of private equity investments	33,156	(10,103)	367
Other	—	—	(133)
Total investment securities gains, net	\$ 30,059	\$ 11,032	\$ 3,626

Net gains and losses on investment securities during 2021, 2020 and 2019 are shown in the table above. Included in these amounts are gains and losses arising from sales of securities from the Company's available for sale debt portfolio and gains and losses relating to private equity investments, which are primarily held by the Parent's majority-owned private equity subsidiary. The gains and losses on private equity investments include fair value adjustments, in addition to gains and losses realized upon disposition. The portions of private equity investment gains and losses that are attributable to minority interests are reported as non-controlling interest in the consolidated statements of income, and resulted in expense of \$6.5 million in 2021, compared to income of \$1.4 million in 2020 and expense of \$348 thousand in 2019.

Net securities gains of \$30.1 million were recorded in 2021, which included \$1.5 million in net gains realized on sales of private equity investments, net gains totaling \$31.7 million of fair value adjustments on private equity investments, and \$187 thousand of fair value adjustments on equity investments. These net gains were offset by losses of \$3.3 million realized on bond sales resulting from the Company's sale of approximately \$73 million (book value) of bonds, mainly mortgage-backed securities.

Net securities gains of \$11.0 million were recorded in 2020, which included \$21.1 million in net gains realized on bond sales resulting from the Company's sale of approximately \$602 million (book value) of bonds, mainly mortgage-backed securities and municipal securities. These gains were offset by net losses totaling \$10.1 million of fair value adjustments on private equity investments.

Net securities gains of \$3.6 million were recorded in 2019, which included \$214 thousand in net losses realized on bond sales resulting from the Company's sale of approximately \$400 million (book value) of bonds, mainly municipal securities, treasuries and asset-backed securities. Net securities gains also included \$3.3 million in gains from sales of equity investments, net gains of \$344 thousand in fair value adjustments on equity investments, and a \$1.1 million in gain from the sale of a private equity investment. These gains were offset by net losses totaling \$727 thousand of fair value adjustments on private equity investments.

Non-Interest Expense

<i>(Dollars in thousands)</i>	2021	2020	2019	% Change	
				21-'20	20-'19
Salaries	\$ 447,238	\$ 436,087	\$ 416,869	2.6%	4.6%
Employee benefits	78,010	76,900	76,058	1.4	1.1
Net occupancy	48,185	46,645	47,157	3.3	(1.1)
Equipment	18,089	18,839	19,061	(4.0)	(1.2)
Supplies and communication	17,118	17,419	20,394	(1.7)	(14.6)
Data processing and software	101,792	95,325	92,899	6.8	2.6
Marketing	21,856	19,734	21,914	10.8	(9.9)
Other	73,613	57,429	73,046	28.2	(21.4)
Total non-interest expense	\$ 805,901	\$ 768,378	\$ 767,398	4.9%	.1%
Efficiency ratio	57.6%	57.2%	56.9%		
Salaries and benefits as a % of total non-interest expense	65.2%	66.8%	64.2%		
Number of full-time equivalent employees	4,567	4,766	4,858		

Non-interest expense was \$805.9 million in 2021, an increase of \$37.5 million, or 4.9%, over the previous year. Salaries and benefits expense increased \$12.3 million, or 2.4%, mainly due to higher incentive compensation and healthcare expense, partly offset by lower salaries expense. Incentive compensation increased due to higher incentives in wealth and commercial, while full-time and part-time salaries expense declined mainly due to lower retail banking salaries expense. Full-time equivalent employees totaled 4,567 at December 31, 2021, reflecting a 4.2% decrease from 2020. Net occupancy expense increased \$1.5 million, or 3.3%, mainly due to lower external rent income. Equipment expense decreased \$750 thousand, or 4.0%, mainly due to lower depreciation and equipment service expense, while supplies and communication expense decreased \$301 thousand, or 1.7%. Data processing and software expense increased \$6.5 million, or 6.8%, primarily due to higher costs for service providers, bank card processing fees and software expense, while marketing expense increased \$2.1 million, or 10.8%. Other non-interest expense increased \$16.2 million, or 28.2%, over the prior year mainly due to \$8.2 million in non-recurring litigation settlement costs recorded in the third quarter of 2021. In addition, deferred origination costs declined \$3.5 million and deposit insurance expense increased \$1.3 million. These increases were partly offset by a reduction in impairment expense of \$3.6 million on the Company's mortgage servicing rights.

In 2020, non-interest expense was \$768.4 million in 2020, an increase of \$980 thousand, or .1%, over 2019. Salaries and benefits expense increased \$20.1 million, or 4.1%, mainly due to higher costs for full-time salaries and incentive compensation. Full-time salaries expense increased due to growth in commercial, information technology, wealth management and other support unit salaries expense, while incentive compensation saw increases in mortgage, capital markets, and in association with the origination of PPP loans. Full-time equivalent employees totaled 4,766 at December 31, 2020, reflecting a 1.9% decrease from 2019. Occupancy expense decreased \$512 thousand, or 1.1%, mainly due to lower utilities and outside services expense, partly offset by higher building depreciation expense. Equipment expense decreased \$222 thousand, or 1.2%, while supplies and communication expense decreased \$3.0 million, or 14.6%, as a result of lower supplies, postage and bank card issuance fees. Data processing and software expense increased \$2.4 million, or 2.6%, primarily due to higher costs for service providers and software expense, partly offset by lower bank card processing fees, while marketing expense decreased \$2.2 million, or 9.9%. Other non-interest expense decreased \$15.6 million, or 21.4%, from 2019 mainly due to higher deferred origination costs (up \$3.7 million) and lower travel and entertainment (down \$8.7 million) and education expense (down \$1.2 million). These decreases were partly offset by higher deposit insurance expense (up \$1.2 million), as well as higher impairment expense (up \$1.8 million) and amortization (up \$2.4 million) on the Company's mortgage servicing rights.

Income Taxes

Income tax expense was \$145.7 million in 2021, compared to \$87.3 million in 2020 and \$109.1 million in 2019. The effective tax rate, including the effect of non-controlling interest, was 21.5% in 2021 compared to 19.8% in 2020 and 20.6% in 2019. The increase in effective tax rate in 2021 compared to 2020 was primarily driven by higher net income before taxes. Additional information about income tax expense is provided in Note 9 to the consolidated financial statements.

Financial Condition

Loan Portfolio Analysis

Classifications of consolidated loans by major category at December 31, 2021 and 2020 are shown in the table below. This portfolio consists of loans which were acquired or originated with the intent of holding to their maturity. Loans held for sale are separately discussed in a following section. A schedule of average balances invested in each loan category below is disclosed within the Average Balance Sheets section of Management's Discussion and Analysis of Financial Condition and Results of Operations below.

<i>(In thousands)</i>	Balance at December 31	
	2021	2020
Commercial:		
Business	\$ 5,303,535	\$ 6,546,087
Real estate — construction and land	1,118,266	1,021,595
Real estate — business	3,058,837	3,026,117
Personal banking:		
Real estate — personal	2,805,401	2,820,030
Consumer	2,032,225	1,950,502
Revolving home equity	275,945	307,083
Consumer credit card	575,410	655,078
Overdrafts	6,740	3,149
Total loans	\$ 15,176,359	\$ 16,329,641

The contractual maturities of the loan portfolio at December 31, 2021, and a breakdown of those loans between fixed rate and floating rate loans are as follows.

<i>(In thousands)</i>	Principal Payments Due				Total
	In One Year or Less	After One Year Through Five Years	After Five Years Through Fifteen Years	After Fifteen Years	
Commercial:					
Business	\$ 2,247,212	\$ 2,663,830	\$ 392,279	\$ 214	\$ 5,303,535
Real estate — construction and land	350,745	719,563	46,390	1,568	1,118,266
Real estate — business	587,310	2,006,034	461,987	3,506	3,058,837
Personal banking:					
Real estate — personal	173,492	570,119	1,068,954	992,836	2,805,401
Consumer	823,145	1,015,556	193,356	168	2,032,225
Revolving home equity	18,390	94,567	162,988	—	275,945
Consumer credit card	65,375	195,195	314,840	—	575,410
Overdrafts	6,740	—	—	—	6,740
Total loans	\$ 4,272,409	\$ 7,264,864	\$ 2,640,794	\$ 998,292	\$ 15,176,359
Loans with fixed rates	\$ 1,260,151	\$ 3,697,387	\$ 1,611,340	\$ 642,568	\$ 7,211,446
Loans with floating rates	3,012,258	3,567,477	1,029,454	355,724	7,964,913
Total loans	\$ 4,272,409	\$ 7,264,864	\$ 2,640,794	\$ 998,292	\$ 15,176,359

The following table shows loan balances at December 31, 2021, segregated between those with fixed interest rates and those with variable rates that fluctuate with an index.

<i>(In thousands)</i>	Fixed Rate Loans	Variable Rate Loans	Total	% Variable Rate Loans
Business	\$ 2,224,077	\$ 3,079,458	\$ 5,303,535	58.1%
Real estate — construction and land	48,877	1,069,389	1,118,266	95.6
Real estate — business	1,343,996	1,714,841	3,058,837	56.1
Real estate — personal	2,059,999	745,402	2,805,401	26.6
Consumer	1,496,644	535,581	2,032,225	26.4
Revolving home equity	1,492	274,453	275,945	99.5
Consumer credit card	29,621	545,789	575,410	94.9
Overdrafts	6,740	—	6,740	—
Total loans	\$ 7,211,446	\$ 7,964,913	\$ 15,176,359	52.5%

Total loans at December 31, 2021 were \$15.2 billion, a decrease of \$1.2 billion, or 7.1%, over balances at December 31, 2020. The decline in loans during 2021 occurred in the business, consumer credit card, revolving home equity and personal real estate loan categories, while construction, consumer, business real estate and overdraft loan categories increased from the prior year. Business loans decreased \$1.2 billion, or 19.0%, mainly due to a \$1.2 billion decline in PPP loan balances. As of December 31, 2021, 93% of PPP loan balances have been forgiven. Excluding PPP loans, business loans increased \$204.5 million, or 4.1%, over balances at December 31, 2020. Lease lending and tax-advantaged lending, included within Business loans, declined during 2021, but these declines were partly offset by growth in commercial card lending. Construction loans increased \$96.7 million, or 9.5% mainly due to growth in commercial construction lending. Business real estate loans increased \$32.7 million, or 1.1%, due mainly to increases in multi-family, owner-occupied, and industrial lending, while hotel and senior living lending declined. Personal real estate loans declined \$14.6 million, or .5%. The Company sells certain long-term fixed rate mortgage loans to the secondary market, and loan sales in 2021 totaled \$547.1 million, compared to \$275.1 million in 2020. Consumer loans increased \$81.7 million, or 4.2%, mainly due to growth in private banking lending. Other vehicle and equipment lending (mostly comprised of motorcycle loans) also increased, offset by declines in auto lending, fixed rate home equity loans and continued run off of marine and recreational vehicle loan balances. Consumer credit card loans decreased \$79.7 million, or 12.2%, and revolving home equity loan balances declined \$31.1 million, or 10.1%, compared to balances at year end 2020.

The Company currently holds approximately 31% of its loan portfolio in the Kansas City market, 26% in the St. Louis market, and 43% in other regional markets. The portfolio is diversified from a business and retail standpoint, with 62% in loans to businesses and 38% in loans to consumers. The Company believes a diversified approach to loan portfolio management, strong underwriting criteria and an aversion toward credit concentrations from an industry, geographic and product perspective, have contributed to low levels of problem loans and credit losses on loans experienced over the last several years.

The Company participates in credits of large, publicly traded companies which are defined by regulation as shared national credits, or SNCs. Regulations define SNCs as loans exceeding \$100 million that are shared by three or more financial institutions. The Company typically participates in these loans when business operations are maintained in the local communities or regional markets and opportunities to provide other banking services are present. At December 31, 2021, the balance of SNC loans totaled approximately \$1.2 billion, with an additional \$1.9 billion in unfunded commitments, compared to a balance of \$1.0 billion, with an additional \$1.7 billion in unfunded commitments, at year end 2020.

Commercial Loans

Business

Total business loans amounted to \$5.3 billion at December 31, 2021 and include loans used mainly to fund customer accounts receivable, inventories, and capital expenditures. The business loan portfolio includes tax-advantaged loans and leases which carry tax-free interest rates. These loans totaled \$729.9 million at December 31, 2021, a decrease of \$131.1 million, or 15.2%, from December 31, 2020 balances. In addition to tax-advantaged leases, the business loan portfolio also includes other direct financing and sales type leases totaling \$536.9 million at December 31, 2021, a decrease of \$47.4 million, or 8.1%, from December 31, 2020. These loans are used by commercial customers to finance capital purchases ranging from computer equipment to office and transportation equipment. Additionally, the Company has outstanding oil and gas energy-related loans totaling \$260.6 million at December 31, 2021, which are further discussed within the Oil and Gas Energy Lending section of

the Risk Elements of Loan Portfolio section located within Management's Discussion and Analysis of Financial Condition and Results of Operations. Also included in the business portfolio are corporate card loans, which totaled \$346.9 million at December 31, 2021 and are made in conjunction with the Company's corporate card business for corporate trade purchases. Corporate card loans are made to corporate, non-profit and government customers nationwide, but have very short-term maturities, which limits credit risk.

Business loans, excluding corporate card loans, are made primarily to customers in the regional trade area of the Company, generally the central Midwest, encompassing the states of Missouri, Kansas, Illinois, and nearby Midwestern markets, including Iowa, Oklahoma, Colorado, Texas, Tennessee, Michigan, Indiana, and Ohio. This portfolio is diversified from an industry standpoint and includes businesses engaged in manufacturing, wholesaling, retailing, agribusiness, insurance, financial services, public utilities, health care, and other service businesses. Emphasis is upon middle-market and community businesses with known local management and financial stability. Consistent with management's strategy and emphasis upon relationship banking, most borrowing customers also maintain deposit accounts and utilize other banking services. Net loan recoveries in this category totaled \$4.8 million in 2021 compared to net loan charge-offs of \$3.7 million in 2020. Non-accrual business loans were \$7.3 million (.1% of business loans) at December 31, 2021 compared to \$22.5 million at December 31, 2020.

Real Estate-Construction and Land

The portfolio of loans in this category amounted to \$1.1 billion at December 31, 2021, an increase of \$96.7 million, or 9.5%, from the prior year and comprised 7.4% of the Company's total loan portfolio. Commercial construction and land development loans totaled \$971.1 million, or 86.8% of total construction loans at December 31, 2021. These loans increased \$103.6 million from 2020 year end balances, driving the growth in the total construction portfolio. Commercial construction loans are made during the construction phase for small and medium-sized office and medical buildings, manufacturing and warehouse facilities, apartment complexes, shopping centers, hotels and motels, and other commercial properties. Commercial land development loans relate to land owned or developed for use in conjunction with business properties. Residential construction and land development loans at December 31, 2021 totaled \$147.1 million, or 13.2% of total construction loans. A stable construction market has contributed to low loss rates on these loans, with net loan charge-offs of nearly zero in both 2021 and 2020.

Real Estate-Business

Total business real estate loans were \$3.1 billion at December 31, 2021 and comprised 20.2% of the Company's total loan portfolio. This category includes mortgage loans for small and medium-sized office and medical buildings, manufacturing and warehouse facilities, distribution facilities, multi-family housing, farms, shopping centers, hotels and motels, churches, and other commercial properties. The business real estate borrowers and/or properties are generally located in local and regional markets where Commerce does business, and emphasis is placed on owner-occupied lending (38.9% of this portfolio), which presents lower risk levels. Additional information about business real estate loans by borrower is disclosed within the Real Estate - Business Loans section of the Risk Elements of Loan Portfolio section located within Management's Discussion and Analysis of Financial Condition and Results of Operations. At December 31, 2021, balances of non-accrual loans amounted to \$214 thousand, less than .1% of business real estate loans, down from \$2.2 million at year end 2020. The Company experienced net loan recoveries of \$64 thousand in 2021, compared to net loan recoveries of \$47 thousand in 2020.

Personal Banking Loans

Real Estate-Personal

At December 31, 2021, there were \$2.8 billion in outstanding personal real estate loans, which comprised 18.5% of the Company's total loan portfolio. The mortgage loans in this category are mainly for owner-occupied residential properties. The Company originates both adjustable and fixed rate mortgage loans, and at December 31, 2021, 27% of the portfolio was comprised of adjustable rate loans, while 73% was comprised of fixed rate loans. The Company does not purchase any loans from outside parties or brokers and has never maintained no-document products.

The Company originates certain mortgage loans with the intent to sell to the secondary market, generally FNMA or FHLMC conforming fixed rate loans. The remaining loans are originated with the intent to hold to maturity. Of the \$1.3 billion of mortgage loans originated in 2021, \$547.1 million were sold to the secondary market. This compares to \$1.5 billion of mortgage loans originated and \$275.1 million of loans sold to the secondary market in 2020. The increase in loan sales during 2021 compared to 2020 was partly due to the Company temporarily pausing loan sales for the second quarter of 2020.

The Company has experienced lower credit losses on loans in this category than many others in the industry and believes this is partly because of its conservative underwriting culture and the fact that it does not purchase loans from brokers. Net loan

recoveries in 2021 totaled \$98 thousand, and net loan recoveries were \$291 thousand in 2020. Balances of non-accrual loans in this category were \$1.6 million at December 31, 2021, compared to \$1.8 million at year end 2020.

Consumer

Consumer loans consist of private banking, automobile, motorcycle, marine, tractor/trailer, recreational vehicle (RV), fixed rate home equity, patient health care financing and other types of consumer loans. These loans totaled \$2.0 billion at December 31, 2021. Approximately 42% of the consumer portfolio consists of automobile loans, 29% in private banking loans, 11% in fixed rate home equity loans, and 9% in healthcare financing loans. Total consumer loans increased \$81.7 million at year end 2021 compared to year end 2020. Growth of \$109.6 million in private banking loans was supplemented by increases in other executive lines of credit and motorcycle loans. These increases in consumer loan balances were partially offset by declines of \$24.5 million in automobile loans, \$19.3 million in fixed rate home equity loans, \$7.3 million in marine and RV loans, and \$1.5 million in patient healthcare financing. Net charge-offs on total consumer loans were \$2.6 million in 2021, compared to \$4.4 million in 2020, averaging .13% and .23% of consumer loans in 2021 and 2020, respectively.

Revolving Home Equity

Revolving home equity loans, of which more than 99% are adjustable rate loans, totaled \$275.9 million at year end 2021. An additional \$784.3 million was available in unused lines of credit, which can be drawn at the discretion of the borrower. Home equity loans are secured mainly by second mortgages (and less frequently, first mortgages) on residential property of the borrower. The underwriting terms for the home equity line product permit borrowing availability, in the aggregate, generally up to 80% or 90% of the appraised value of the collateral property at the time of origination. Net loan charge-offs were nearly zero in 2021, compared to net loan recoveries of \$166 thousand in 2020.

Consumer Credit Card

Total consumer credit card loans amounted to \$575.4 million at December 31, 2021 and comprised 3.8% of the Company's total loan portfolio. The credit card portfolio is concentrated within regional markets served by the Company. The Company offers a variety of credit card products, including affinity cards, rewards cards, and standard and premium credit cards, and emphasizes its credit card relationship product, Special Connections. Approximately 39% of the households that own a Commerce credit card product also maintain a deposit relationship with the subsidiary bank. Approximately 95% of the outstanding credit card loan balances had a floating interest rate at year end 2021, unchanged from year end 2020. Net charge-offs amounted to \$20.0 million in 2021, a decrease of \$6.0 million from \$26.0 million in 2020.

Loans Held for Sale

At December 31, 2021, loans held for sale were comprised of certain long-term fixed rate personal real estate loans and loans extended to students while attending colleges and universities. The personal real estate loans are carried at fair value and totaled \$5.6 million at December 31, 2021. The student loans, carried at the lower of cost or fair value, totaled \$3.0 million at December 31, 2021. Both of these portfolios are further discussed in Note 2 to the consolidated financial statements.

Allowance for Credit Losses on Loans and Liability for Unfunded Lending Commitments

To determine the amount of the allowance for credit losses on loans and the liability for unfunded lending commitments, the Company has established a process which assesses the risks and losses expected in its portfolios. This process provides an allowance based on estimates of allowances for pools of loans and unfunded lending commitments, as well as a second, smaller component based on certain individually evaluated loans and unfunded lending commitments. The Company's policies and processes for determining the allowance for credit losses on loans and the liability for unfunded lending commitments are discussed in Note 1 to the consolidated financial statements and in the "*Allowance for Credit Losses*" discussion within *Critical Accounting Policies* above.

Loans subject to individual evaluation generally consist of business, construction, business real estate and personal real estate loans on non-accrual status. These non-accrual loans are evaluated individually for impairment based on factors such as payment history, borrower financial condition and collateral. For collateral dependent loans, appraisals of collateral (including exit costs) are normally obtained annually but discounted based on date last received and market conditions. From these evaluations of expected cash flows and collateral values, specific allowances are determined.

Loans which are not individually evaluated are segregated by loan type and sub-type and are collectively evaluated. These loans consist of commercial loans (business, construction and business real estate) which have been graded pass, special mention, or substandard, and also include all personal banking loans except personal real estate loans on non-accrual status. Collectively-evaluated loans include certain troubled debt restructurings with similar risk characteristics.

The allowance for credit losses on loans and the liability for unfunded lending commitments are estimates that require significant judgment including projections of the macro-economic environment. The Company utilizes a third-party macro-economic forecast that continuously changes due to economic conditions and events. These changes in the forecast cause fluctuations in the allowance for credit losses on loans and the liability for unfunded lending commitments. The Company uses its best judgment to assess the macro-economic forecast and internal loss data in estimating the allowance for credit losses on loans and the liability for unfunded lending commitments. These estimates are subject to periodic refinement based on changes in the underlying external and internal data.

The Company has internal credit administration and loan review staff that continuously review loan quality and report the results of their reviews and examinations to the Company's senior management and Board of Directors. Such reviews also assist management in establishing the level of the allowance. The Company's subsidiary bank continues to be subject to examination by several regulatory agencies, and examinations are conducted throughout the year, targeting various segments of the loan portfolio for review. Refer to Note 1 to the consolidated financial statements for additional discussion on the allowance and charge-off policies.

At December 31, 2021, the allowance for credit losses on loans was \$150.0 million, compared to \$220.8 million at December 31, 2020. The allowance for credit losses related to commercial loans decreased \$23.8 million during 2021, due to decreases in the allowance for business and construction loans of \$19.7 million and \$4.7 million, respectively. Compared to December 31, 2020, the allowance for credit losses on consumer credit card, personal real estate, and consumer loans decreased \$38.5 million, \$3.0 million, and \$5.2 million, respectively. These large decreases resulted from an improved forecast utilized in the Company's estimate of future credit losses at December 31, 2021, coupled with lower than projected net loan charge-offs during the year. The allowance for credit losses at December 31, 2020 included an uncertain economic projection defined by high unemployment and other business and personal disruptions caused by COVID-19. Through various governmental stimulus programs and improvements in the public health crisis due to the development and increasing availability of a COVID-19 vaccine, the projected net charge-offs were not realized and the economic forecast improved, thus allowing the release of the allowance for credit losses during 2021. As a result, the provision for credit losses, which includes the provision for loans and unfunded lending commitments, was a benefit of \$66.3 million for the year, compared to a provision of \$137.2 million in 2020. See Note 2 to the consolidated financial statements for the various model assumptions utilized in the Company's CECL estimate at December 31, 2021.

The percentage of allowance to loans decreased to .99% at December 31, 2021, compared to 1.35% at December 30, 2020. The percentage of allowance to commercial portfolio loans decreased to 1.03% at December 31, 2021, compared to 1.15% at December 30, 2020, and the percentage of allowance to personal banking loans decreased to .92% at December 31, 2021 from 1.73% at December 31, 2020. The allowance fell as a percentage of loans at December 31, 2021 because the economic forecast utilized in the Company's CECL model improved over the forecast utilized at December 31, 2020, and the net charge-offs projected at December 31, 2020 did not come to fruition. Additionally, included within business loans at December 31, 2020 are approximately \$1.4 billion PPP loans that are fully guaranteed by the government, and therefore, no allowance for credit losses was estimated for these loans. At December 31, 2021, PPP loans outstanding were approximately \$129.2 million.

Excluding the PPP loans, the allowance for credit losses on loans was 1.00% of loans at December 31, 2021 and 1.48% at December 31, 2020. Most of the PPP loans originated by the Company during 2020 and 2021 have been forgiven, and the Company expects nearly all of the remaining outstanding PPP loans to be forgiven during 2022.

Total loans delinquent 90 days or more and still accruing were \$11.7 million at December 31, 2021, a decrease of \$10.5 million compared to year end 2020. The decrease was mainly driven by decreases of \$7.0 million in consumer credit card, \$3.0 million in business, and \$1.1 million in consumer loans delinquent 90 days or more, partly offset by an increase of \$411 thousand in revolving home equity loan delinquencies. Non-accrual loans at December 31, 2021 were \$9.2 million, a decrease of \$17.4 million over the prior year, mainly due to a decrease in business and business real-estate non-accrual loans of \$15.2 million and \$2.0 million, respectively. The allowance for credit losses as a percentage of non-accrual loans was 1,638.6% at December 31, 2021, compared to 832.1% at December 31, 2020. The increase in the ratio of the allowance to non-accrual loans was driven by the decrease in non-accrual loans outstanding. The 2021 year-end balance of non-accrual loans was comprised of \$7.3 million of business loans, \$1.6 million of personal real estate loans, and \$214 thousand of business real estate loans.

Net loan charge-offs totaled \$18.6 million in 2021, representing a \$16.3 million decrease compared to net charge-offs of \$34.9 million in 2020. The decrease was largely due net recoveries of \$4.8 million on business loans during 2021, compared to net charge-offs of \$3.7 million in the prior year, and lower net charge-offs in consumer credit card and consumer loans of \$6.0 million and \$1.9 million, respectively. Consumer credit card net charge-offs were 3.47% of average consumer credit card loans in 2021, compared to 3.88% in 2020. Consumer credit card loan net charge-offs as a percentage of total net charge-offs increased to 107.8% in 2021, compared to 74.5% in 2020. Consumer loan net charge-offs were .13% of average consumer loans in 2021, compared to .23% in 2020, and represented 13.8% of total net loan charge-offs in 2021. The ratio of net charge-offs to total average loans outstanding in 2021 was .12%, compared to .22% in 2020 and .35% in 2019.

At December 31, 2021, the liability for unfunded lending commitments was \$24.2 million, a decrease of \$14.1 million compared to December 31, 2020. The decrease in the liability for unfunded lending commitments during 2021 was driven by the improved economic forecast. The Company's unfunded lending commitments primarily relate to construction loans, and the Company's estimate for credit losses in its unfunded lending commitments utilizes the same model and forecast as its estimate for credit losses on loans. See Note 2 for further discussion of the model inputs utilized in the Company's estimate of credit losses.

The Company considers the allowance for credit losses on loans and the liability for unfunded lending commitments adequate to cover losses expected in the loan portfolio, including unfunded commitments, at December 31, 2021.

The schedules which follow summarize the relationship between loan balances and activity in the allowance for credit losses on loans:

<i>(Dollars in thousands)</i>	Years Ended December 31		
	2021	2020	2019
Loans outstanding at end of year^(A)	\$ 15,176,359	\$ 16,329,641	\$ 14,737,817
Average loans outstanding^(A)	\$ 15,664,388	\$ 15,896,848	\$ 14,224,637
Allowance for credit losses:			
Balance at end of prior year	\$ 220,834	\$ 160,682	\$ 159,932
Adoption of ASU 2016-13	—	(21,039)	—
Balance at beginning of year	220,834	139,643	159,932
Provision for credit losses on loans	(52,223)	116,049	50,438
Loans charged off:			
Business	810	7,862	4,622
Real estate — construction and land	3	—	7
Real estate — business	155	—	82
Real estate — personal	134	42	294
Consumer	5,370	7,769	12,048
Revolving home equity	188	79	487
Consumer credit card	27,461	32,541	42,254
Overdrafts	1,506	1,754	2,086
Total loans charged off	35,627	50,047	61,880
Recoveries of loans previously charged off:			
Business	5,568	4,197	520
Real estate — construction and land	2	3	124
Real estate — business	219	47	142
Real estate — personal	232	333	238
Consumer	2,814	3,325	3,494
Revolving home equity	185	245	278
Consumer credit card	7,453	6,562	6,833
Overdrafts	587	477	563
Total recoveries	17,060	15,189	12,192
Net loans charged off	18,567	34,858	49,688
Balance at end of year	\$ 150,044	\$ 220,834	\$ 160,682
Ratio of allowance to loans at end of year	.99%	1.35%	1.09%
Ratio of provision to average loans outstanding	-.33%	.73%	.35%
Non-accrual loans	\$ 9,157	\$ 26,540	\$ 10,220
Ratio of non-accrual loans to total loans outstanding	.06%	.16%	.07%
Ratio of allowance for credit losses on loans to non-accrual loans	1,638.57	832.08	1,572.23

(A) Net of unearned income, before deducting allowance for credit losses on loans, excluding loans held for sale.

	Years Ended December 31		
	2021	2020	2019
Ratio of net charge-offs (recoveries) to average loans outstanding, by loan category:			
Business	(.08%)	.06%	.08%
Real estate — construction and land	—	—	(.01)
Real estate — business	—	—	—
Real estate — personal	—	(.01)	—
Consumer	.13	.23	.44
Revolving home equity	—	(.05)	.06
Consumer credit card	3.47	3.88	4.63
Overdrafts	21.20	38.11	16.55
Ratio of total net charge-offs to total average loans outstanding	.12%	.22%	.35%

Average loans outstanding by loan class are listed on the Company's average balance sheet on page 62.

The following schedule provides a breakdown of the allowance for credit losses on loans (ACL) by loan category and the percentage of each loan category to total loans outstanding at year end.

<i>(Dollars in thousands)</i>	2021			2020		
	Credit Loss Allowance Allocation	% of Loans to Total Loans	% of ACL to Loan Category	Credit Loss Allowance Allocation	% of Loans to Total Loans	% of ACL to Loan Category
Business	\$ 43,943	34.9%	.83 %	\$ 63,660	40.1%	.97%
RE — construction and land	23,171	7.4	2.07	27,836	6.3	2.72
RE — business	30,662	20.2	1.00	30,053	18.5	.99
RE — personal	5,331	18.5	.19	8,304	17.3	.29
Consumer	10,073	13.4	.50	15,244	11.9	.78
Revolving home equity	1,217	1.8	.44	1,475	1.9	.48
Consumer credit card	35,467	3.8	6.16	74,001	4.0	11.30
Overdrafts	180	—	2.67	261	—	8.29
Total	\$ 150,044	100.0%	.99 %	\$ 220,834	100.0%	1.35%

Risk Elements of the Loan Portfolio

Management reviews the loan portfolio continuously for evidence of problem loans. During the ordinary course of business, management becomes aware of borrowers that may not be able to meet the contractual requirements of loan agreements. Such loans are placed under close supervision with consideration given to placing the loan on non-accrual status, the need for an additional allowance for credit loss, and (if appropriate) partial or full loan charge-off. Loans are placed on non-accrual status when management does not expect to collect payments consistent with acceptable and agreed upon terms of repayment. After a loan is placed on non-accrual status, any interest previously accrued but not yet collected is reversed against current income. Interest is included in income only as received and only after all previous loan charge-offs have been recovered, so long as management is satisfied there is no impairment of collateral values. The loan is returned to accrual status only when the borrower has brought all past due principal and interest payments current, and, in the opinion of management, the borrower has demonstrated the ability to make future payments of principal and interest as scheduled. Loans that are 90 days past due as to principal and/or interest payments are generally placed on non-accrual, unless they are both well-secured and in the process of collection, or they are comprised of those personal banking loans that are exempt under regulatory rules from being classified as non-accrual. Consumer installment loans and related accrued interest are normally charged down to the fair value of related collateral (or are charged off in full if no collateral) once the loans are more than 120 days delinquent. Credit card loans and the related accrued interest are charged off when the receivable is more than 180 days past due.

The following schedule shows non-performing assets and loans past due 90 days and still accruing interest.

(Dollars in thousands)	December 31				
	2021	2020	2019	2018	2017
Total non-accrual loans	\$ 9,157	\$ 26,540	\$ 10,220	\$ 12,536	\$ 11,983
Real estate acquired in foreclosure	115	93	365	1,413	681
Total non-performing assets	\$ 9,272	\$ 26,633	\$ 10,585	\$ 13,949	\$ 12,664
Non-performing assets as a percentage of total loans	.06 %	.16 %	.07 %	.10 %	.09 %
Non-performing assets as a percentage of total assets	.03 %	.08 %	.04 %	.05 %	.05 %
Loans past due 90 days and still accruing interest	\$ 11,726	\$ 22,190	\$ 19,859	\$ 16,658	\$ 18,127

Non-accrual loans totaled \$9.2 million at year end 2021, a decrease of \$17.4 million from the balance at year end 2020. The decrease from December 31, 2020 occurred mainly in business loans, which decreased \$15.2 million, and business real estate loans, which decreased \$2.0 million. At December 31, 2021, non-accrual loans were comprised of business (79.9%), personal real estate (17.8%), and business real estate (2.3%) loans. Foreclosed real estate totaled \$115 thousand at December 31, 2021, an increase of \$22 thousand when compared to December 31, 2020. Total non-performing assets remain low compared to the overall banking industry in 2021, with the non-performing assets to total loans ratio at .06% at December 31, 2021. Total loans past due 90 days or more and still accruing interest were \$11.7 million as of December 31, 2021, a decrease of \$10.5 million when compared to December 31, 2020. Balances by class for non-accrual loans and loans past due 90 days and still accruing interest are shown in the "Delinquent and non-accrual loans" section of Note 2 to the consolidated financial statements.

In addition to the non-performing and past due loans mentioned above, the Company also has identified loans for which management has concerns about the ability of the borrowers to meet existing repayment terms. They are classified as substandard under the Company's internal rating system. The loans are generally secured by either real estate or other borrower assets, reducing the potential for loss should they become non-performing. Although these loans are generally identified as potential problem loans, they may never become non-performing. Such loans totaled \$278.7 million at December 31, 2021, compared with \$361.8 million at December 31, 2020, resulting in a decrease of \$83.1 million or 23.0%. The decrease in potential problem loans was largely driven by a \$95.9 million decrease in business loans, partly offset by a \$10.9 million and \$2.1 million increase in construction loans and business real estate loans, respectively.

(In thousands)	December 31	
	2021	2020
Potential problem loans:		
Business	\$ 37,143	\$ 133,039
Real estate – construction and land	40,259	29,378
Real estate – business	200,766	198,666
Real estate – personal	526	670
Total potential problem loans	\$ 278,694	\$ 361,753

Loans with Special Risk Characteristics

Management relies primarily on an internal risk rating system, in addition to delinquency status, to assess risk in the loan portfolio, and these statistics are presented in Note 2 to the consolidated financial statements. However, certain types of loans are considered at a higher risk of loss due to their terms, location, or special conditions. Construction and land loans and business real estate loans are subject to higher risk because of the impact that volatile interest rates and a changing economy can have on real estate value, and because of the potential volatility of the real estate industry. Certain home equity loans have contractual features that could increase credit exposure in a market of declining real estate prices, when interest rates are steadily increasing, or when a geographic area experiences an economic downturn. For these home equity loans, higher risks could exist when 1) loan terms require a minimum monthly payment that covers only interest, or 2) loan-to-collateral value (LTV) ratios at origination are above 80%, with no private mortgage insurance. Information presented below for home equity loans is based on LTV ratios which were calculated with valuations at loan origination date. The Company does not obtain updated appraisals or valuations unless the loans become significantly delinquent or are in the process of being foreclosed upon. For credit monitoring purposes, the Company analyzes delinquency information, current FICO scores, and line utilization. This has remained an effective means of evaluating credit trends and identifying problem loans, partly because the Company offers standard, conservative lending products.

Real Estate - Construction and Land Loans

The Company's portfolio of construction and land loans, as shown in the table below, amounted to 7.4% of total loans outstanding at December 31, 2021. The largest component of construction and land loans was commercial construction, which increased \$95.1 million during the year ended December 31, 2021. At December 31, 2021, multi-family residential construction loans totaled approximately \$155.9 million, or 16.9%, of the commercial construction loan portfolio.

<i>(Dollars in thousands)</i>	December 31, 2021	% of Total	% of Total Loans	December 31, 2020	% of Total	% of Total Loans
Commercial construction	\$ 922,654	82.5 %	6.1 %	\$ 827,546	81.0%	5.1 %
Residential construction	96,618	8.6	.7	94,729	9.3	.6
Residential land and land development	50,513	4.6	.3	59,299	5.8	.4
Commercial land and land development	48,481	4.3	.3	40,021	3.9	.2
Total real estate – construction and land loans	\$ 1,118,266	100.0 %	7.4 %	\$ 1,021,595	100.0%	6.3 %

Real Estate – Business Loans

Total business real estate loans were \$3.1 billion at December 31, 2021 and comprised 20.2% of the Company's total loan portfolio. These loans include properties such as manufacturing and warehouse buildings, distribution facilities, small office and medical buildings, churches, hotels and motels, shopping centers, and other commercial properties. Approximately 38.9% of these loans were for owner-occupied real estate properties, which present lower risk profiles.

<i>(Dollars in thousands)</i>	December 31, 2021	% of Total	% of Total Loans	December 31, 2020	% of Total	% of Total Loans
Owner-occupied	\$ 1,188,469	38.9%	7.8%	\$ 1,145,862	37.9%	7.0%
Office	380,101	12.4	2.5	385,392	12.7	2.4
Multi-family	354,282	11.6	2.3	301,161	10.0	1.8
Retail	339,874	11.1	2.2	349,461	11.5	2.1
Hotels	234,673	7.7	1.5	271,189	9.0	1.7
Farm	178,780	5.8	1.2	169,692	5.6	1.0
Senior living	174,871	5.7	1.2	195,800	6.5	1.2
Industrial	99,800	3.3	.7	78,341	2.6	.5
Other	107,987	3.5	.8	129,219	4.2	.8
Total real estate - business loans	\$ 3,058,837	100.0%	20.2%	\$ 3,026,117	100.0%	18.5%

Revolving Home Equity Loans

The Company has revolving home equity loans that are generally collateralized by residential real estate. Most of these loans (92.6%) are written with terms requiring interest-only monthly payments. These loans are offered in three main product lines: LTV up to 80%, 80% to 90%, and 90% to 100%. As shown in the following tables, the percentage of loans with LTV ratios greater than 80% has remained a small segment of this portfolio, and delinquencies have been low and stable. The weighted average FICO score for the total portfolio balance at December 31, 2021 was 792. At maturity, the accounts are re-underwritten and if they qualify under the Company's credit, collateral and capacity policies, the borrower is given the option to renew the line of credit or to convert the outstanding balance to an amortizing loan. If criteria are not met, amortization is required, or the borrower may pay off the loan. Over the next three years, approximately 18.7% of the Company's current outstanding balances are expected to mature. Of these balances, 85.9% have a FICO score above 700. The Company does not expect a significant increase in losses as these loans mature, due to their high FICO scores, low LTVs, and low historical loss levels.

<i>(Dollars in thousands)</i>	Principal Outstanding at December 31, 2021	*	New Lines Originated During 2021	*	Unused Portion of Available Lines at December 31, 2021	*	Balances Over 30 Days Past Due	*
Loans with interest-only payments	\$ 255,636	92.6%	\$145,968	52.9%	\$760,706	275.7%	\$1,344	.5 %
Loans with LTV:								
Between 80% and 90%	28,682	10.4	17,887	6.5	47,283	17.1	222	.1
Over 90%	2,262	0.8	—	—	2,666	1.0	—	—
Over 80% LTV	30,944	11.2	17,887	6.5	49,949	18.1	222	.1
Total loan portfolio from which above loans were identified	275,945		154,000		784,262			

* Percentage of total principal outstanding of \$275.9 million at December 31, 2021.

<i>(Dollars in thousands)</i>	Principal Outstanding at December 31, 2020	*	New Lines Originated During 2020	*	Unused Portion of Available Lines at December 31, 2020	*	Balances Over 30 Days Past Due	*
Loans with interest-only payments	\$ 286,126	93.2%	\$154,032	50.2%	\$752,180	244.9%	\$1,046	.3 %
Loans with LTV:								
Between 80% and 90%	29,318	9.5	20,707	6.7	47,588	15.5	403	.1
Over 90%	2,784	1.0	1,834	.6	2,895	0.9	—	—
Over 80% LTV	32,102	10.5	22,541	7.3	50,483	16.4	403	.1
Total loan portfolio from which above loans were identified	307,083		161,260		773,462			

* Percentage of total principal outstanding of \$307.1 million at December 31, 2020.

Consumer Loans

The Company's consumer loans totaled \$2.0 billion and comprised 13.4% of total loans outstanding at December 31, 2021. Within the consumer loan portfolio are several direct and indirect product lines comprised mainly of loans secured by automobiles, motorcycles, marine, and RVs. Auto loans comprised 42% of the consumer loan portfolio at December 31, 2021, and outstanding balances in the auto loan portfolio were \$855.4 million and \$879.9 million at December 31, 2021 and 2020, respectively. The balances over 30 days past due amounted to \$9.0 million at December 31, 2021, compared to \$9.2 million at the end of 2020, and comprised 1.1% of the outstanding balances of these loans at December 31, 2021 compared to 1.0% at December 31, 2020. For the year ended December 31, 2021, \$400.8 million of new auto loans were originated, compared to \$399.3 million during 2020. At December 31, 2021, the automobile loan portfolio had a weighted average FICO score of 757, and net charge-offs on auto loans were .13% of average auto loans at December 31, 2021.

The Company's consumer loan portfolio also includes fixed rate home equity loans, typically for home repair or remodeling, and these loans comprised 11% of the consumer loan portfolio at December 31, 2021. Losses on these loans have historically been low, and the Company saw a net charge-off of \$47 thousand in 2021. Private banking loans comprised 29% of the consumer loan portfolio at December 31, 2021. The Company's private banking loans are generally well-collateralized and at December 31, 2021 were secured primarily by assets held by the Company's trust department. The remaining portion of the Company's consumer loan portfolio is comprised of health services financing, motorcycles, marine and RV loans. Net charge-offs on private banking, health services financing, motorcycle and marine and RV loans totaled \$1.4 million in 2021 and were .16% of the average balances of these loans at December 31, 2021.

Consumer Credit Card Loans

The Company offers low introductory rates on selected consumer credit card products. Out of a portfolio at December 31, 2021 of \$575.4 million in consumer credit card loans outstanding, approximately \$87.9 million, or 15.3%, carried a low promotional rate. Within the next six months, \$34.9 million of these loans are scheduled to convert to the ongoing higher contractual rate. To mitigate some of the risk involved with this credit card promotional feature, the Company performs credit checks and detailed analysis of the customer borrowing profile before approving the loan application. Management believes that the risks in the consumer loan portfolio are reasonable and the anticipated loss ratios are within acceptable parameters.

Oil and Gas Energy Lending

The Company's energy lending portfolio was comprised of lending to the petroleum and natural gas sectors and totaled \$260.6 million at December 31, 2021, an increase of \$81.9 million from year end 2020, as shown in the table below.

<i>(In thousands)</i>	December 31, 2021	December 31, 2020	Unfunded commitments at December 31, 2021
Extraction	\$ 184,840	\$ 133,866	\$ 134,844
Mid-stream shipping and storage	36,850	15,634	69,634
Downstream distribution and refining	24,915	18,365	23,521
Support activities	14,039	10,864	18,034
Total energy lending portfolio	\$ 260,644	\$ 178,729	\$ 246,033

Information about the credit quality of the Company's energy lending portfolio as of December 31, 2021 and December 31, 2020 is provided in the table below.

<i>(Dollars in thousands)</i>	December 31, 2021	% of Energy Lending	December 31, 2020	% of Energy Lending
Pass	\$ 256,186	98.3 %	\$ 126,380	70.7 %
Special mention	1,999	.8	17,978	10.1
Substandard	—	—	31,676	17.7
Non-accrual	2,459	.9	2,695	1.5
Total	\$ 260,644	100.0 %	\$ 178,729	100.0 %

Energy lending balances classified as non-accrual represented .9% of total energy lending loan balances at December 31, 2021. There were no balances classified as substandard at December 31, 2021. The Company recorded \$10 thousand of recoveries on energy loans for the year ended December 31, 2021, compared to \$15 thousand of net loan charge-offs on energy loans for the year ended December 31, 2020.

Small Business Lending

During April 2020, in response to the COVID-19 crisis, the federal government created the Paycheck Protection Program, sponsored by the Small Business Administration ("SBA"), under the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act"). As a participating lender under the program, the Company funded \$1.9 billion in loans for customers. From the start of the PPP through December 31, 2021, the Company has recognized in income \$57.2 million out of \$60.4 million total fees that it expects to earn from the program.

The Company understands that the loans are fully guaranteed by the SBA. Therefore, there was no increase in the allowance for credit losses on loans related to these loans, as there is no expectation of credit loss. The maximum term of the originated loans is five years, however, as of December 31, 2021, 93% of the PPP loans have been forgiven by the SBA. Almost all of the remaining loans are expected to be forgiven during 2022.

Investment Securities Analysis

Investment securities are comprised of securities that are classified as available for sale, equity, trading or other. The largest component, available for sale debt securities, increased 19.2% during 2021 to \$14.4 billion (excluding unrealized gains/losses in fair value) at year end 2021. During 2021, debt securities of \$5.9 billion were purchased, which included \$1.5 billion in agency mortgage-backed securities, \$2.4 billion in asset-backed securities, \$286.7 million in state and municipal securities, and \$1.3 billion in non-agency mortgage-based securities. Total sales, maturities and pay downs of available for sale debt securities were \$3.5 billion during 2021. During 2022, maturities and pay downs of approximately \$3.0 billion are expected to occur. The Company's tax-exempt investment portfolio is primarily comprised of tax-exempt municipal bonds and certain equity securities in its private equity investment portfolio. There were no significant changes to the Company's tax-exempt investment portfolio during 2021. The average tax equivalent yield earned on total investment securities was 1.81% in 2021 and 2.19% in 2020.

At December 31, 2021, the fair value of available for sale securities was \$14.5 billion, which included a net unrealized gain in fair value of \$30.9 million, compared to a net unrealized gain of \$351.7 million at December 31, 2020. The overall unrealized gain in fair value at December 31, 2021 included net gains of \$45.2 million in U.S. government and federal agency obligations and net gains of \$24.6 million in state and municipal securities. These unrealized gains were partly offset by net losses of \$38.5 million in mortgage and asset-backed securities. As described in Note 1, the Company adopted ASU 2016-13, Measurement of Credit Losses on Financial Instruments, on January 1, 2020, and the current expected credit loss model (CECL) implemented by the Company requires that lifetime expected credit losses on securities be recorded in current earnings. For the year ended December 31, 2021, the Company did not recognize a credit loss expense on any available for sale debt securities.

Available for sale investment securities at year end for the past two years are shown below:

<i>(In thousands)</i>	December 31	
	2021	2020
Amortized Cost		
U.S. government and federal agency obligations	\$ 1,035,477	\$ 775,592
Government-sponsored enterprise obligations	50,773	50,803
State and municipal obligations	2,072,210	1,968,006
Agency mortgage-backed securities	5,698,088	6,557,098
Non-agency mortgage-backed securities	1,383,037	358,074
Asset-backed securities	3,546,024	1,853,791
Other debt securities	633,524	534,169
Total available for sale debt securities	\$ 14,419,133	\$ 12,097,533
Fair Value		
U.S. government and federal agency obligations	\$ 1,080,720	\$ 838,059
Government-sponsored enterprise obligations	51,755	54,485
State and municipal obligations	2,096,827	2,045,099
Agency mortgage-backed securities	5,683,000	6,712,085
Non-agency mortgage-backed securities	1,366,477	361,074
Asset-backed securities	3,539,219	1,882,243
Other debt securities	632,029	556,219
Total available for sale debt securities	\$ 14,450,027	\$ 12,449,264

At December 31, 2021, the available for sale portfolio included \$5.7 billion of agency mortgage-backed securities, which are collateralized bonds issued by agencies including FNMA, GNMA, FHLMC, FHLB, Federal Farm Credit Banks and FDIC. Non-agency mortgage-backed securities totaled \$1.4 billion and included \$329.3 million collateralized by commercial mortgages and \$1.0 billion collateralized by residential mortgages at December 31, 2021.

At December 31, 2021, U.S. government obligations included TIPS of \$390.9 million, at fair value. Other debt securities include corporate bonds, notes and commercial paper.

The types of securities held in the available for sale security portfolio at year end 2021 are presented in the table below. Additional detail by maturity category is provided in Note 3 to the consolidated financial statements.

	December 31, 2021		
	Percent of Total Debt Securities	Weighted Average Yield	Estimated Average Maturity*
Available for sale debt securities:			
U.S. government and federal agency obligations	7.5%	1.34%	2.6 years
Government-sponsored enterprise obligations	0.4	2.32	15.0
State and municipal obligations	14.4	1.97	6.6
Agency mortgage-backed securities	39.3	1.94	5.2
Non-agency mortgage-backed securities	9.5	1.84	3.7
Asset-backed securities	24.5	1.05	2.5
Other debt securities	4.4	1.97	5.6

*Based on call provisions and estimated prepayment speeds.

Equity securities include common and preferred stock with readily determinable fair values that totaled \$7.2 million at December 31, 2021, compared to \$3.0 million at December 31, 2020.

Other securities totaled \$194.0 million at December 31, 2021 and \$156.7 million at December 31, 2020. These include Federal Reserve Bank stock and Federal Home Loan Bank (Des Moines) stock held by the bank subsidiary in accordance with debt and regulatory requirements. These are restricted securities and are carried at cost. The Company's equity method investments are carried at cost, adjusted to reflect the Company's portion of income, loss, or dividends of the investee. Also included in other securities are private equity investments which are held by a subsidiary qualified as a Small Business Investment Company. These investments are carried at estimated fair value, but are not readily marketable. While the nature of these investments carries a higher degree of risk than the normal lending portfolio, this risk is mitigated by the overall size of the investments and oversight provided by management, and management believes the potential for long-term gains in these investments outweighs the potential risks.

Other securities at year end for the past two years are shown below:

<i>(In thousands)</i>	December 31	
	2021	2020
Federal Reserve Bank stock	\$ 34,379	\$ 34,070
Federal Home Loan Bank stock	10,428	10,307
Equity method investments	1,834	18,000
Private equity investments in debt securities	63,416	43,609
Private equity investments in equity securities	83,990	50,759
Total other securities	\$ 194,047	\$ 156,745

In addition to its holdings in the investment securities portfolio, the Company invests in securities purchased under agreements to resell, which totaled \$1.6 billion at December 31, 2021 and \$850.0 million at December 31, 2020. These investments mature in 2022 through 2023 and have fixed rates or variable rates that fluctuate with published indices. The counterparties to these agreements are other financial institutions from whom the Company has accepted collateral of \$1.7 billion in marketable investment securities at December 31, 2021. The average rate earned on these agreements during 2021 was 2.9%, compared to 4.7% in 2020.

The Company also holds offsetting repurchase and resale agreements totaling \$400.0 million at December 31, 2021 and \$200.0 million at December 31, 2020, which are further discussed in Note 20 to the consolidated financial statements. These agreements involve the exchange of collateral under simultaneous repurchase and resale agreements with the same financial institution counterparty. These repurchase and resale agreements have been offset against each other in the balance sheet, as permitted under current accounting guidance. The agreements mature in 2022 and earned an average of 30 basis points during 2021, compared to 41 basis points in 2020.

Deposits and Borrowings

Deposits, including both individual and corporate customers, are the primary funding source for the Bank and are acquired from a broad base of local markets. Total period-end deposits were \$29.8 billion at December 31, 2021, compared to \$26.9 billion last year, reflecting an increase of \$2.9 billion, or 10.6%.

Average deposits increased \$4.3 billion, or 18.2%, in 2021 compared to 2020, resulting from increases in average demand deposits, which increased \$2.4 billion, primarily driven by higher balances in business demand deposits. Additionally, average money market deposit account balances increased \$1.8 billion in 2021, and savings account balances increased \$327.1 million. Partially offsetting these increases in deposit balances were declines in average certificates of deposit balances, which decreased \$221.0 million in 2021.

The following table shows year end deposit balances by type, as a percentage of total deposits.

	December 31	
	2021	2020
Non-interest bearing	39.4%	38.9%
Savings, interest checking and money market	55.7	54.2
Certificates of deposit of less than \$100,000	1.5	2.0
Certificates of deposit of \$100,000 and over	3.4	4.9
Total deposits	100.0%	100.0%

Core deposits, which include non-interest bearing, interest checking, savings, and money market deposits, supported 79% and 77% of average earning assets in 2021 and 2020, respectively. Average balances by major deposit category for the last six years are disclosed in the Average Balance Sheets section of Management's Discussion and Analysis of Financial Condition and Results of Operations below. A maturity schedule of all certificates of deposits outstanding at December 31, 2021 is included in Note 7 on Deposits in the consolidated financial statements.

Total uninsured deposits were calculated using the same methodology that the Company uses to determine uninsured deposits for regulatory reporting and amounted to \$14.6 billion and \$12.7 billion at December 31, 2021 and December 31, 2020. The following table shows a detailed breakdown of the maturities of uninsured certificates of deposit at December 31, 2021. The Company calculated the uninsured deposits in the following table by aggregating all deposit balances by customer and assuming federal deposit insurance would first apply to demand deposits, followed by savings deposits, and lastly to time deposits (beginning with the earliest maturity deposits).

<i>(In thousands)</i>	Uninsured Certificates of Deposit at December 31, 2021	
Due in 3 months or less	\$	411,628
Due in over 3 through 6 months		150,443
Due in over 6 through 12 months		186,730
Due in over 12 months		170,521
Total	\$	919,322

The Company's primary sources of overnight borrowings are federal funds purchased and securities sold under agreements to repurchase (repurchase agreements). Balances in these accounts can fluctuate significantly on a day-to-day basis and generally have one day maturities. Total balances of federal funds purchased and repurchase agreements outstanding at December 31, 2021 were \$3.0 billion, comprised of federal funds purchased of \$43.4 million and repurchase agreements of \$3.0 billion. These balances increased \$1.1 million and \$923.5 million from the federal funds purchased and repurchase agreements outstanding at December 31, 2020. On an average basis, these borrowings increased \$368.4 million, or 18.7%, during 2021, due to an increase of \$470.9 million in repurchase agreements, partially offset by a decrease of \$102.6 million in federal funds purchased. The average rate paid on both federal funds purchased and repurchase agreements was .07% during 2021, compared to rates of .63% paid on federal funds purchased and .29% paid on repurchase agreements during 2020.

Historically, the majority of the Company's long-term debt has been comprised of fixed rate advances from the FHLB. There were no FHLB borrowings during 2021. In March 2020, the Company borrowed \$750.0 million of short-term funds from the FHLB, and all of those borrowings were repaid by the Company during the second quarter of 2020. The average rate paid on FHLB advances was .82% during 2020.

Liquidity and Capital Resources

Liquidity Management

Liquidity is managed within the Company in order to satisfy cash flow requirements of deposit and borrowing customers while at the same time meeting its own cash flow needs. The Company has taken numerous steps to address liquidity risk and has developed a variety of liquidity sources which it believes will provide the necessary funds for future growth. The Company manages its liquidity position through a variety of sources including:

- A portfolio of liquid assets including marketable investment securities and overnight investments,
- A large customer deposit base and limited exposure to large, volatile certificates of deposit,
- Lower long-term borrowings that might place demands on Company cash flow,
- Relatively low loan to deposit ratio promoting strong liquidity,
- Excellent debt ratings from both Standard & Poor's and Moody's national rating services, and
- Available borrowing capacity from outside sources.

The Company's most liquid assets include available for sale debt securities, federal funds sold, balances at the Federal Reserve Bank, and securities purchased under agreements to resell. At December 31, 2021 and 2020, such assets were as follows:

<i>(In thousands)</i>	2021	2020
Available for sale debt securities	\$ 14,450,027	\$ 12,449,264
Federal funds sold	2,800	—
Securities purchased under agreements to resell	1,625,000	850,000
Balances at the Federal Reserve Bank	3,971,217	1,747,363
Total	\$ 20,049,044	\$ 15,046,627

There were \$2.8 million federal funds sold at December 31, 2021, which are funds lent to the Company's correspondent bank customers with overnight maturities. Resale agreements, maturing through 2023, totaled \$1.6 billion at December 31, 2021. Under these agreements, the Company lends funds to upstream financial institutions and holds marketable securities, safe-kept by a third-party custodian, as collateral. This collateral totaled \$1.7 billion in fair value at December 31, 2021. Interest earning balances at the Federal Reserve Bank, which have overnight maturities and are used for general liquidity purposes, totaled \$4.0 billion at December 31, 2021. The fair value of the available for sale debt portfolio was \$14.5 billion at December 31, 2021 and included an unrealized net gain of \$30.9 million. The total net unrealized gain included net gains of \$45.2 million on U.S. government and federal agency obligations and \$24.6 million on state and municipal obligations. These net gains were partially offset by net unrealized losses of \$38.5 million on mortgage-backed and asset-backed securities.

Approximately \$3.0 billion of the available for sale debt portfolio is expected to mature or pay down during 2022, and these funds offer substantial resources to meet either new loan demand or help offset potential reductions in the Company's deposit funding base. The Company pledges portions of its investment securities portfolio to secure public fund deposits, securities sold under agreements to repurchase, trust funds, letters of credit issued by the FHLB, and borrowing capacity at the Federal Reserve Bank. At December 31, 2021 and 2020, total investment securities pledged for these purposes were as follows:

<i>(In thousands)</i>	2021	2020
Investment securities pledged for the purpose of securing:		
Federal Reserve Bank borrowings	\$ 17,465	\$ 40,792
FHLB borrowings and letters of credit	3,218	5,376
Repurchase agreements *	3,475,589	2,322,941
Other deposits	2,897,576	2,438,628
Total pledged securities	6,393,848	4,807,737
Unpledged and available for pledging	6,913,721	6,310,907
Ineligible for pledging	1,142,458	1,330,620
Total available for sale debt securities, at fair value	\$ 14,450,027	\$ 12,449,264

* Includes securities pledged for collateral swaps, as discussed in Note 20 to the consolidated financial statements

The average loans to deposits ratio is a measure of a bank's liquidity, and the Company's average loans to deposits ratio was 56.5% for the year ended December 31, 2021. Core customer deposits, defined as non-interest bearing, interest checking, savings, and money market deposit accounts, totaled \$28.4 billion and represented 95.2% of the Company's total deposits at December 31, 2021. These core deposits are normally less volatile, often with customer relationships tied to other products offered by the Company promoting long lasting relationships and stable funding sources. Core deposits increased \$3.3 billion at year end 2021 compared to year end 2020, primarily due to increases in commercial and consumer deposits of \$2.0 billion and \$1.4 billion, respectively. While the Company considers core consumer and wealth management deposits less volatile, corporate deposits could decline if interest rates increase significantly, encouraging corporate customers to increase investing activities, or if the economy declines and companies experience lower cash inflows, reducing deposit balances. If these corporate deposits decline, the Company's funding needs can be met by liquidity supplied by investment security maturities and pay downs expected to total \$3.0 billion over the next year, as noted above. In addition, as shown in the table of collateral available for future advances below, the Company has borrowing capacity of \$2.6 billion through advances from the FHLB and the Federal Reserve.

<i>(In thousands)</i>	2021	2020
Core deposit base:		
Non-interest bearing	\$ 11,772,374	\$ 10,497,598
Interest checking	3,227,822	2,402,272
Savings and money market	13,370,263	12,202,184
Total	\$ 28,370,459	\$ 25,102,054

Certificates of deposit of \$100,000 or greater totaled \$1.0 billion at December 31, 2021. These deposits are normally considered more volatile and higher costing, and comprised 3.4% of total deposits at December 31, 2021.

Other important components of liquidity are the level of borrowings from third party sources and the availability of future credit. The Company's outside borrowings are mainly comprised of federal funds purchased and repurchase agreements, as follows:

<i>(In thousands)</i>	2021	2020
Borrowings:		
Federal funds purchased	\$ 43,385	\$ 42,270
Securities sold under agreements to repurchase	2,979,582	2,056,113
Other debt	12,560	802
Total	\$ 3,035,527	\$ 2,099,185

Federal funds purchased, which totaled \$43.4 million at December 31, 2021, are unsecured overnight borrowings obtained mainly from upstream correspondent banks with which the Company maintains approved lines of credit. Retail repurchase agreements are offered to customers wishing to earn interest in highly liquid balances and are used by the Company as a funding source considered to be stable, but short-term in nature. Repurchase agreements are collateralized by securities in the Company's investment portfolio. Total repurchase agreements at December 31, 2021 were comprised of non-insured customer funds totaling \$3.0 billion, and securities pledged for these retail agreements totaled \$3.1 billion.

The Company pledges certain assets, including loans and investment securities to both the Federal Reserve Bank and the FHLB as security to establish lines of credit and borrow from these entities. Based on the amount and type of collateral pledged, the FHLB establishes a collateral value from which the Company may draw advances against the collateral. Additionally, this collateral is used to enable the FHLB to issue letters of credit in favor of public fund depositors of the Company. The Federal Reserve Bank also establishes a collateral value of assets pledged and permits borrowings from the discount window. The following table reflects the collateral value of assets pledged, borrowings, and letters of credit outstanding, in addition to the estimated future funding capacity available to the Company at December 31, 2021.

<i>(In thousands)</i>	December 31, 2021		
	FHLB	Federal Reserve	Total
Total collateral value pledged	\$ 2,000,941	\$ 1,033,648	\$ 3,034,589
Letters of credit issued	(427,705)	—	(427,705)
Available for future advances	\$ 1,573,236	\$ 1,033,648	\$ 2,606,884

The Company receives outside ratings from both Standard & Poor's and Moody's on both the consolidated company and its subsidiary bank, Commerce Bank. These ratings are as follows:

	Standard & Poor's	Moody's
Commerce Bancshares, Inc.		
Issuer rating	A-	
Rating outlook	Stable	
Commerce Bank		
Issuer rating	A	A2
Baseline credit assessment		a1
Short-term rating	A-1	P-1
Rating outlook	Stable	Stable

The Company considers these ratings to be indications of a sound capital base and strong liquidity and believes that these ratings would help ensure the ready marketability of its commercial paper, should the need arise. No commercial paper has been outstanding during the past ten years. The Company has no subordinated or hybrid debt instruments which would affect future borrowing capacity. Because of its lack of significant long-term debt, the Company believes that, through its Capital Markets Group or in other public debt markets, it could generate additional liquidity from sources such as jumbo certificates of deposit, privately-placed corporate notes or other forms of debt.

The cash flows from the operating, investing and financing activities of the Company resulted in a net increase in cash, cash equivalents and restricted cash of \$2.1 billion in 2021, as reported in the consolidated statements of cash flows. Operating activities, consisting mainly of net income adjusted for certain non-cash items, provided cash flow of \$597.7 million and has historically been a stable source of funds. Investing activities used cash of \$2.1 billion. Purchases (net of sales and maturities proceeds) of investment securities used cash of \$2.4 billion, securities purchased under agreements to resell used cash of \$900.0 million, and a net decrease in the loan portfolio provided cash of \$1.1 billion. Investing activities are somewhat unique to financial institutions in that, while large sums of cash flow are normally used to fund growth in investment securities, loans, or other bank assets, they are normally dependent on the financing activities described below.

During 2021, financing activities provided cash of \$3.6 billion. This increase in cash was largely driven by growth in deposits, which provided cash of \$2.9 billion. Federal funds purchases and short-term securities sold under agreements to repurchase provided cash in the amount of \$924.6 million. The Company paid cash dividends of \$122.7 million on common stock, and treasury stock purchases used cash of \$129.4 million during 2021. Future short-term liquidity needs for daily operations are not expected to vary significantly, and the Company believes it maintains adequate liquidity to meet these cash flows.

Cash outflows resulting from the Company's transactions in its common and preferred stock were as follows:

<i>(In millions)</i>	2021	2020	2019
Purchases of treasury stock	\$ 129.4	\$ 54.2	\$ 134.9
Accelerated share repurchase agreements	—	—	150.0
Common cash dividends paid	122.7	120.8	113.5
Preferred stock redemption*	—	150.0	—
Preferred cash dividends paid	—	6.8	9.0
Cash used	\$ 252.1	\$ 331.8	\$ 407.4

*The period ended December 31, 2020 includes \$5.2 million of excess redemption costs over the book value of the preferred stock. This excess payment considered a dividend.

The Parent faces unique liquidity constraints due to legal limitations on its ability to borrow funds from its bank subsidiary. The Parent obtains funding to meet its obligations from two main sources: dividends received from bank and non-bank subsidiaries (within regulatory limitations) and management fees charged to subsidiaries as reimbursement for services provided by the Parent, as presented below:

<i>(In millions)</i>	2021	2020	2019
Dividends received from subsidiaries	\$ 340.0	\$ 210.0	\$ 500.0
Management fees	36.3	33.5	36.8
Total	\$ 376.3	\$ 243.5	\$ 536.8

These sources of funds are used mainly to pay cash dividends on outstanding stock, pay general operating expenses, and purchase treasury stock. At December 31, 2021, the Parent's investment securities totaled \$12.8 million at fair value, consisting mainly of corporate bonds and preferred stock. To support its various funding commitments, the Parent maintains a \$20.0 million line of credit with its subsidiary bank. There were no borrowings outstanding under the line during 2021 or 2020.

Company senior management is responsible for measuring and monitoring the liquidity profile of the organization with oversight by the Company's Asset/Liability Committee. This is done through a series of controls, including a written Contingency Funding Policy and risk monitoring procedures, which include daily, weekly and monthly reporting. In addition, the Company prepares forecasts to project changes in the balance sheet affecting liquidity and to allow the Company to better plan for forecasted changes.

Material Cash Requirements, Contractual Obligations, Commitments, and Off-Balance Sheet Arrangements

The Company's material cash requirements include commitments for contractual obligations (both short-term and long-term), commitments to extend credit, and off-balance sheet arrangements. The Company's material cash requirements for the next 12 months are primarily to fund loan growth. Additionally, the Company will utilize cash to fund deposit maturities and withdrawals that may occur in the next 12 months. Other contractual obligations, purchase commitments, lease obligations, and unfunded commitments may require cash payments by the Company within the next 12 months, and these, along with longer-term obligations, are discussed below.

A table summarizing contractual cash obligations of the Company at December 31, 2021, and the expected timing of these payments follows:

<i>(In thousands)</i>	Payments Due by Period					Total
	In One Year or Less	After One Year Through Three Years	After Three Years Through Five Years	After Five Years		
Operating lease obligations	\$ 6,009	\$ 9,317	\$ 4,275	\$ 13,727	\$	33,328
Purchase obligations	319,168	321,625	90,368	74,101		805,262
Certificates of Deposit*	1,138,020	236,411	68,176	7		1,442,614
Total	\$ 1,463,197	\$ 567,353	\$ 162,819	\$ 87,835	\$	2,281,204

*Includes principal payments only.

In the normal course of business, various commitments and contingent liabilities arise that are not required to be recorded on the balance sheet. The most significant of these are loan commitments totaling \$13.3 billion (including approximately \$5.0

billion in unused, approved credit card lines) and the contractual amount of standby letters of credit totaling \$418.3 million at December 31, 2021. As many commitments expire unused or only partially used, these totals do not necessarily reflect future cash requirements. Management does not anticipate any material losses arising from commitments or contingent liabilities and believes there are no material commitments to extend credit that represent risks of an unusual nature.

The Company funds a defined benefit pension plan for a portion of its employees. Under the funding policy for the plan, contributions are made as necessary to provide for current service and for any unfunded accrued actuarial liabilities over a reasonable period. No contributions to the defined benefit plan were made in 2021, 2020 or 2019, and the Company is not required nor does it expect to make a contribution in 2022.

The Company has investments in low-income housing partnerships generally within the areas it serves. These partnerships supply funds for the construction and operation of apartment complexes that provide affordable housing to that segment of the population with lower family income. If these developments successfully attract a specified percentage of residents falling in that lower income range, federal (and sometimes state) income tax credits are made available to the partners. The tax credits are normally recognized over ten years, and they play an important part in the anticipated yield from these investments. In order to continue receiving the tax credits each year over the life of the partnership, the low-income residency targets must be maintained. Under the terms of the partnership agreements, the Company has a commitment to fund a specified amount that will be due in installments over the life of the agreements, which ranges from 3 to 17 years. At December 31, 2021, the investments totaled \$60.0 million and are recorded as other assets in the Company's consolidated balance sheet. Unfunded commitments, which are recorded as liabilities, amounted to \$40.6 million at December 31, 2021.

During the third quarter of 2020, the Company signed a \$106.7 million agreement with U.S. Capital Development to develop a 280,000 square foot commercial office building in a two building complex in Clayton, Missouri. As of December 31, 2021, the Company has made payments totaling \$55.2 million. While the Company intends to occupy a portion of the office building for executive offices, a 15 year lease has been signed by an anchor tenant to lease approximately 50% of the office building.

The Company regularly purchases various state tax credits arising from third-party property redevelopment. These credits are either resold to third parties for a profit or retained for use by the Company. During 2021, purchases and sales of tax credits amounted to \$113.5 million and \$108.1 million, respectively. Income from the sales of tax credits were \$4.5 million, \$4.2 million and \$3.5 million in 2021, 2020 and 2019, respectively. At December 31, 2021, the Company had outstanding purchase commitments totaling \$186.0 million that it expects to fund in 2022. These commitments, along with the commitments for the next five years, are included in the table above.

The Company's sound equity base, along with its long-term low debt level, common and preferred stock availability, and excellent debt ratings, provide several alternatives for future financing. Future acquisitions may utilize partial funding through one or more of these options. Through the various sources of liquidity described above, the Corporation maintains a liquidity position that it believes will adequately satisfy its financial obligations. The Company is not aware of any trends, events, or commitments that are reasonably likely to increase or decrease its liquidity in a material way.

Capital Management

Under Basel III capital guidelines, at December 31, 2021 and 2020, the Company met all capital adequacy requirements and had regulatory capital ratios in excess of the levels established for well-capitalized institutions, as shown in the following table.

<i>(Dollars in thousands)</i>	2021	2020	Minimum Ratios under Capital Adequacy Guidelines	Minimum Ratios for Well- Capitalized Banks*
Risk-adjusted assets	\$ 22,483,748	\$ 21,516,461		
Tier I common risk-based capital	3,225,044	2,950,926		
Tier I risk-based capital	3,225,044	2,950,926		
Total risk-based capital	3,399,880	3,189,432		
Tier I common risk-based capital ratio	14.34 %	13.71 %	7.00 %	6.50 %
Tier I risk-based capital ratio	14.34	13.71	8.50	8.00
Total risk-based capital ratio	15.12	14.82	10.50	10.00
Tier I leverage ratio	9.13	9.45	4.00	5.00
Tangible common equity to tangible assets	9.01	9.92		
Dividend payout ratio	23.12	35.32		

* Under Prompt Corrective Action requirements

The Company is subject to a 2.5% capital conservation buffer, which is an amount above the minimum ratios under capital adequacy guidelines, and is required under Basel III. The capital conservation buffer is intended to absorb losses during periods of economic stress. Failure to maintain the buffer will result in constraints on dividends, share repurchases, and executive compensation.

In the first quarter of 2020, the interim final rule of the Federal Reserve Bank and other U.S. banking agencies became effective, providing banks that adopted CECL (ASU 2016-13) during the 2020 calendar year the option to delay recognizing the estimated impact on regulatory capital until after a two year deferral period, followed by a three year transition period. In connection with the adoption of CECL on January 1, 2020, the Company has elected to utilize this option. As a result, the two year deferral period for the Company extends through December 31, 2021. Beginning on January 1, 2022, the Company will be required to phase in 25% of the previously deferred estimated capital impact of CECL, with an additional 25% to be phased in at the beginning of each subsequent year until fully phased in by the first quarter of 2025.

The Company maintains a treasury stock buyback program under authorizations by its Board of Directors and periodically purchases stock in the open market. During 2020, the Company purchased 886 thousand shares, and during 2021 the Company purchased 1.8 million shares. There were no shares purchased under an accelerated share repurchase (ASR) agreement in 2021 or 2020. The ASR agreement is further discussed in Note 14 to the consolidated financial statements. At December 31, 2021, 1.7 million shares remained available for purchase under the current Board authorization.

The Company's common stock dividend policy reflects its earnings outlook, desired payout ratios, the need to maintain adequate capital levels and alternative investment options. Per share cash dividends paid by the Company increased 2.0% in 2021 compared with 2020, and the Company increased its first quarter 2022 cash dividend 6.0%, making 2022 the Company's 54th consecutive year of regular cash dividend increases. The Company also distributed its 28th consecutive annual 5% stock dividend in December 2021.

On September 1, 2020, the Company redeemed all 6,000 outstanding shares of its 6.00% Series B Non-Cumulative Perpetual Preferred Stock and the corresponding depositary shares representing fractional interests in the Series B Preferred Stock at a redemption price of \$25 per depositary share (equivalent to \$1,000 per share of preferred stock). Regular dividends on the outstanding shares of the Series B Preferred Stock were paid separately on September 1, 2020 to holders of record as of the close of business on August 14, 2020, in the customary manner. On and after September 1, 2020, all dividends on the shares of Series B Preferred Stock ceased to accrue.

Interest Rate Sensitivity

The Company's Asset/Liability Management Committee (ALCO) measures and manages the Company's interest rate risk on a monthly basis to identify trends and establish strategies to maintain stability in net interest income throughout various rate environments. Analytical modeling techniques provide management insight into the Company's exposure to changing rates. These techniques include net interest income simulations and market value analysis. Management has set guidelines specifying acceptable limits within which net interest income and market value may change under various rate change scenarios. These measurement tools indicate that the Company is currently within acceptable risk guidelines as set by management.

The Company's main interest rate measurement tool, income simulation, projects net interest income under various rate change scenarios in order to quantify the magnitude and timing of potential rate-related changes. Income simulations are able to capture option risks within the balance sheet where expected cash flows may be altered under various rate environments. Modeled rate movements include "shocks, ramps and twists." Shocks are intended to capture interest rate risk under extreme conditions by immediately shifting rates up and down, while ramps measure the impact of gradual changes and twists measure yield curve risk. The size of the balance sheet is assumed to remain constant so that results are not influenced by growth predictions.

The Company also employs a sophisticated simulation technique known as a stochastic income simulation. This technique allows management to see a range of results from hundreds of income simulations. The stochastic simulation creates a vector of potential rate paths around the market's best guess (forward rates) concerning the future path of interest rates and allows rates to randomly follow paths throughout the vector. This allows for the modeling of non-biased rate forecasts around the market consensus. Results give management insight into a likely range of rate-related risk as well as worst and best-case rate scenarios.

Additionally, the Company uses market value analyses to help identify longer-term risks that may reside on the balance sheet. This is considered a secondary risk measurement tool by management. The Company measures the market value of equity as the net present value of all asset and liability cash flows discounted along the current swap curve plus appropriate market risk spreads. It is the change in the market value of equity under different rate environments, or effective duration, that gives insight into the magnitude of risk to future earnings due to rate changes. Market value analyses also help management understand the price sensitivity of non-marketable bank products under different rate environments.

The tables below show the effects of gradual shifts in interest rates over a twelve month period on the Company's net interest income versus the Company's net interest income in a flat rate scenario. Simulation A presents three rising rate scenarios and in each scenario, rates are assumed to change evenly over 12 months. In these scenarios, the balance sheet remains flat.

The sensitivity of deposit balances to changes in rates is particularly difficult to estimate in exceptionally low rate environments. Since the future effects of changes in rates on deposit balances cannot be known with certainty, the Company conservatively models alternate scenarios with greater deposit attrition as rates rise. Simulation B illustrates results from these higher attrition scenarios to provide added perspective on potential effects of higher rates.

The Company utilizes these simulations both for monitoring interest rate risk and for liquidity planning purposes. While the future effects of rising rates on deposit balances cannot be known, the Company maintains a practice of running multiple rate scenarios to better understand interest rate risk and its effect on the Company's performance.

Simulation A	December 31, 2021			September 30, 2021		
	\$ Change in Net Interest Income	% Change in Net Interest Income	Assumed Deposit Attrition	\$ Change in Net Interest Income	% Change in Net Interest Income	Assumed Deposit Attrition
<i>(Dollars in millions)</i>						
300 basis points rising	\$ 105.2	14.44 %	\$ —	\$ 101.1	13.87 %	\$ —
200 basis points rising	76.0	10.44	—	73.1	10.02	—
100 basis points rising	39.5	5.42	—	37.7	5.17	—

Under Simulation A, in the three rising rate scenarios, interest rate risk is slightly more asset sensitive than the previous quarter, which resulted mainly from an increase in interest earning deposits with the Federal Reserve. Deposit attrition was removed from the simulation in both the current and previous quarters. The Company did not model a 100 basis point falling scenario due to the already low interest rate environment.

Simulation B	December 31, 2021			September 30, 2021		
	\$ Change in Net Interest Income	% Change in Net Interest Income	Assumed Deposit Attrition	\$ Change in Net Interest Income	% Change in Net Interest Income	Assumed Deposit Attrition
<i>(Dollars in millions)</i>						
300 basis points rising	\$ 60.8	8.35 %	\$ (1,611.1)	\$ 67.6	9.27 %	\$ (1,430.9)
200 basis points rising	51.8	7.11	(950.7)	54.8	7.51	(849.1)
100 basis points rising	33.5	4.59	(263.6)	33.2	4.55	(237.5)

In Simulation B, the assumed higher levels of deposit attrition were modeled to capture the results of a shrinking balance sheet. Under this Simulation, in the three rising rate scenarios, interest rate risk is slightly less asset sensitive than the previous quarter, which primarily resulted from an increase in surge deposits.

Projecting deposit activity in a historically low interest rate environment is difficult, and the Company cannot predict how deposits will react to shifting rates. The comparison provided above provides insight into potential effects of changes in rates and deposit levels on net interest income. The Company believes that its approach to interest rate risk has appropriately considered its susceptibility to both rising and falling rates and has adopted strategies which minimize the impact of interest rate risk.

Derivative Financial Instruments

The Company maintains an overall interest rate risk management strategy that permits the use of derivative instruments to modify exposure to interest rate risk. Such instruments include interest rate swaps, interest rate floors, interest rate caps, credit risk participation agreements, mortgage loan commitments, forward sale contracts, and forward to-be-announced (TBA) contracts. The Company's interest rate risk management strategy includes the ability to modify the re-pricing characteristics of certain assets and liabilities so that changes in interest rates do not adversely affect the net interest margin and cash flows.

In addition to using derivatives to manage interest rate risk, the Company enters into foreign exchange derivative instruments as an accommodation to customers and offsets the related foreign exchange risk by entering into offsetting third-party forward contracts with approved, reputable counterparties. This trading activity is managed within a policy of specific controls and limits.

In all of these contracts, the Company is exposed to credit risk in the event of nonperformance by counterparties, who may be bank customers or other financial institutions. The Company controls the credit risk of its financial contracts through credit approvals, limits and monitoring procedures. Because the Company generally only enters into transactions with high quality counterparties, there have been no losses associated with counterparty nonperformance on derivative financial instruments.

The following table summarizes the notional amounts and estimated fair values of the Company's derivative instruments at December 31, 2021 and 2020. Notional amount, along with the other terms of the derivative, is used to determine the amounts to be exchanged between the counterparties. Because the notional amount does not represent amounts exchanged by the parties, it is not a measure of loss exposure related to the use of derivatives nor of exposure to liquidity risk. All of these derivative instruments utilized by the Company are further discussed in Note 19 on Derivative Instruments.

<i>(In thousands)</i>	2021			2020		
	Notional Amount	Positive Fair Value	Negative Fair Value	Notional Amount	Positive Fair Value	Negative Fair Value
Interest rate swaps	\$ 2,229,419	\$ 40,752	\$ (11,606)	\$ 2,367,017	\$ 86,389	\$ (17,199)
Interest rate caps	152,058	147	(147)	103,028	1	(1)
Credit risk participation agreements	485,633	84	(277)	381,170	216	(701)
Foreign exchange contracts	5,119	77	(45)	7,431	57	(103)
Mortgage loan commitments	21,787	764	—	67,543	3,226	—
Mortgage loan forward sale contracts	1,165	5	(1)	—	—	—
Forward TBA contracts	21,000	13	(25)	89,000	—	(671)
Total at December 31	\$ 2,916,181	\$ 41,842	\$ (12,101)	\$ 3,015,189	\$ 89,889	\$ (18,675)

Operating Segments

The Company segregates financial information for use in assessing its performance and allocating resources among three operating segments. The results are determined based on the Company's management accounting process, which assigns balance sheet and income statement items to each responsible segment. These segments are defined by customer base and product type. The management process measures the performance of the operating segments based on the management structure of the Company and is not necessarily comparable with similar information for any other financial institution. Each segment is managed by executives who, in conjunction with the Chief Executive Officer, make strategic business decisions regarding that segment. The three reportable operating segments are Consumer, Commercial, and Wealth. Additional information is presented in Note 13 on Segments in the consolidated financial statements.

The Company uses a funds transfer pricing method to value funds used (e.g., loans, fixed assets, cash, etc.) and funds provided (deposits, borrowings, and equity) by the business segments and their components. This process assigns a specific value to each new source or use of funds with a maturity, based on current swap rates, thus determining an interest spread at the time of the transaction. Non-maturity assets and liabilities are valued using weighted average pools. The funds transfer pricing process attempts to remove interest rate risk from valuation, allowing management to compare profitability under various rate environments. The Company also assigns loan charge-offs and recoveries (labeled in the table below as "provision for credit losses") directly to each operating segment instead of allocating an estimated credit loss provision. The operating segments also include a number of allocations of income and expense from various support and overhead centers within the Company.

The table below is a summary of segment pre-tax income results for the past three years.

<i>(Dollars in thousands)</i>	Consumer	Commercial	Wealth	Segment Totals	Other/ Elimination	Consolidated Totals
Year ended December 31, 2021:						
Net interest income	\$ 319,439	\$ 453,692	\$ 71,522	\$ 844,653	\$ (9,229)	\$ 835,424
Provision for credit losses	(23,249)	4,845	(52)	(18,456)	84,782	66,326
Non-interest income	147,273	211,048	213,617	571,938	(11,545)	560,393
Investment securities gains, net	—	—	—	—	30,059	30,059
Non-interest expense	(293,504)	(329,313)	(136,356)	(759,173)	(46,728)	(805,901)
Income before income taxes	\$ 149,959	\$ 340,272	\$ 148,731	\$ 638,962	\$ 47,339	\$ 686,301
Year ended December 31, 2020:						
Net interest income	\$ 321,036	\$ 414,724	\$ 57,925	\$ 793,685	\$ 36,162	\$ 829,847
Provision for loan losses	(31,220)	(3,724)	12	(34,932)	(102,258)	(137,190)
Non-interest income	148,586	194,505	188,942	532,033	(26,166)	505,867
Investment securities gains, net	—	—	—	—	11,032	11,032
Non-interest expense	(297,790)	(316,004)	(124,964)	(738,758)	(29,620)	(768,378)
Income before income taxes	\$ 140,612	\$ 289,501	\$ 121,915	\$ 552,028	\$ (110,850)	\$ 441,178
2021 vs 2020						
Increase in income before income taxes:						
Amount	\$ 9,347	\$ 50,771	\$ 26,816	\$ 86,934	\$ 158,189	\$ 245,123
Percent	6.6%	17.5%	22.0%	15.7%	142.7%	55.6%
Year ended December 31, 2019:						
Net interest income	\$ 315,778	\$ 343,233	\$ 47,863	\$ 706,874	\$ 114,419	\$ 821,293
Provision for loan losses	(44,987)	(4,204)	(174)	(49,365)	(1,073)	(50,438)
Non-interest income	135,257	203,952	180,836	520,045	4,658	524,703
Investment securities gains, net	—	—	—	—	3,626	3,626
Non-interest expense	(297,530)	(309,163)	(122,784)	(729,477)	(37,921)	(767,398)
Income before income taxes	\$ 108,518	\$ 233,818	\$ 105,741	\$ 448,077	\$ 83,709	\$ 531,786
2020 vs 2019						
Increase (decrease) in income before income taxes:						
Amount	\$ 32,094	\$ 55,683	\$ 16,174	\$ 103,951	\$ (194,559)	\$ (90,608)
Percent	29.6%	23.8%	15.3%	23.2%	(232.4%)	(17.0%)

Consumer

The Consumer segment includes consumer deposits, consumer finance, and consumer debit and credit cards. During 2021, income before income taxes for the Consumer segment increased \$9.3 million, or 6.6%, compared to 2020. This increase was due to a decrease in non-interest expense of \$4.3 million, or 1.4%, and a decrease in the provision for credit losses of \$8.0 million. These increases to income were partly offset by a \$1.6 million, or .5%, decrease in net interest income and a \$1.3 million, or .9%, decrease to non-interest income. Net interest income decreased due to a \$21.9 million decline in loan interest income, partly offset by a \$9.1 million increase in net allocated funding credits assigned to the Consumer segment's loan and deposit portfolios, and lower deposit interest expense of \$11.2 million. Non-interest income decreased mainly due to a decline in mortgage banking revenue, partly offset by growth in net credit and debit card fees (mainly higher interchange fees, partly offset by higher credit card rewards expense) and check sales and wire fees. Non-interest expense decreased from the prior year mainly due to lower salaries and benefits expense, occupancy expense, allocated servicing costs for mortgage operations and a reduction in impairment expense on mortgage servicing rights. These decreases were partly offset by higher marketing expense and higher allocated costs for information technology. The provision for credit losses totaled \$23.2 million, an \$8.0 million decrease from the prior year, which resulted mainly from lower net charge-offs on consumer credit card and consumer loans. Total average loans in this segment decreased \$178.3 million, or 8.5%, in 2021 compared to 2020 mainly due to declines in consumer credit card, auto and fixed and revolving home equity loans. Average deposits increased \$1.6 billion, or 13.8%, over the prior year, resulting from growth in personal demand, savings and interest checking and money market deposit accounts.

During 2020, income before income taxes for the Consumer segment increased \$32.1 million, or 29.6%, compared to 2019. This increase was due to growth of \$5.3 million, or 1.7% in net interest income, non interest income of \$13.3 million, or 9.9%, and a decrease to the provision for credit losses of \$13.8 million. Net interest income increased due to an \$18.0 million increase in net allocated funding credits and lower deposit interest expense of \$7.3 million, partly offset by a decrease in interest income on loans of \$20.1 million. Non-interest income increased mainly due to growth in mortgage banking revenue, partly offset by declines in deposit fees (mainly overdraft and return item fees) and net credit and debit card fees (mainly lower interchange fees, partly offset by lower rewards expense). These increases to income were partly offset by growth of \$260 thousand, or .1%, in non-interest expense. Non-interest expense increased over 2019 due to higher incentive compensation expense, allocated teller servicing costs, intangible asset amortization and an impairment on mortgage servicing rights. These increases were partly offset by lower supplies and communication expense, marketing expense, and bank card processing fees. The provision for credit losses totaled \$31.2 million, a \$13.8 million decrease from 2019, which resulted mainly from lower net charge-offs on consumer credit card and consumer loans. Total average loans in this segment decreased \$139.3 million, or 6.2%, in 2020 compared to 2019 mainly due to declines in consumer credit card and fixed and revolving home equity loans. Average deposits increased \$1.0 billion over 2019, resulting from growth in personal demand, savings, interest checking and money market deposit accounts.

Commercial

The Commercial segment provides lending (including the Small Business Banking product line within the branch network), leasing, international services, and business, government deposit, and related commercial cash management services, as well as merchant and commercial bank card products. The segment includes the Capital Markets Group, which sells fixed-income securities to correspondent banks, corporations, public institutions, municipalities, and individuals and also provides securities safekeeping and bond accounting services. Pre-tax income for 2021 increased \$50.8 million, or 17.5%, compared to 2020, mainly due to increases in net interest income and non-interest income and a decline in the provision for credit losses, partly offset by an increase in non-interest expense. Net interest income increased \$39.0 million, or 9.4%, due to higher net allocated funding credits of \$56.9 million and lower interest expense of \$12.9 million on deposits and customer repurchase agreements, partly offset by a decrease of \$30.9 million in loan interest income. The provision for credit losses decreased \$8.6 million due to recoveries recorded on business loans in the current year compared to net charge-offs recorded in the prior year. Non-interest income increased \$16.5 million, or 8.5%, over 2020 due to higher net bank card fees (mainly corporate card and merchant fees), deposit account fees (mainly corporate cash management fees), and higher interest rate swap fees. These increases were partly offset by lower cash sweep commissions. Non-interest expense increased \$13.3 million, or 4.2%, during 2021, mainly due to higher salaries and benefits expense (mainly incentive compensation), data processing and software expense, allocated support costs for information technology and commercial banking, and lower deferred origination costs. These increases were partly offset by lower allocated service costs (mainly lockbox). Average segment loans decreased \$327.8 million, or 3.1%, compared to 2020, with the decline occurring in business loans (mainly PPP loans), partly offset by an increase in construction loans. Average deposits increased \$2.1 billion, or 20.7%, mainly due to growth in business demand deposits.

Pre-tax income for 2020 increased \$55.7 million, or 23.8%, compared to 2019, mainly due to an increase in net interest income, partly offset by a decrease in non-interest income and an increase in non-interest expense. Net interest income increased \$71.5 million, or 20.8%, due to growth of \$75.7 million in net allocated funding credits and lower interest expense of \$46.2 million on deposits and customer repurchase agreements, partly offset by a decrease of \$50.4 million in loan interest income. The provision for credit losses decreased \$480 thousand from 2019 due to lower lease loan net charge-offs, partly offset by higher business loan net charge-offs. Non-interest income decreased \$9.4 million, or 4.6%, from 2019 due to lower net corporate card fees (driven by lower transaction volume), lower swap fees and lower gains on sales of leased assets. These decreases were partly offset by higher deposit account fees (mainly corporate cash management) and capital market fees. Non-interest expense increased \$6.8 million, or 2.2%, during 2020, mainly due to higher salaries and incentive compensation expense and allocated service and support costs (mainly information technology and commercial loan servicing). These increases were partly offset by decreases in travel and entertainment expense and allocated teller services costs, as well as higher deferred origination costs. Average segment loans increased \$1.3 billion, or 14.2%, compared to 2019, with growth occurring in business (mainly PPP loans) and business real estate loans. Average deposits increased \$2.1 billion, or 26.6%, mainly due to growth in business demand accounts.

Wealth

The Wealth segment provides traditional trust and estate planning, advisory and discretionary investment management services, brokerage services, and includes Private Banking accounts. At December 31, 2021, the Trust group managed investments with a market value of \$42.9 billion and administered an additional \$26.4 billion in non-managed assets. It also provides investment management services to The Commerce Funds, a series of mutual funds with \$3.2 billion in total assets at December 31, 2021. In 2021, pre-tax income for the Wealth segment was \$148.7 million, compared to \$121.9 million in 2020,

an increase of \$26.8 million, or 22.0%. Net interest income increased \$13.6 million, or 23.5%, due to an \$11.0 million increase in net allocated funding credits and lower deposit interest expense of \$4.0 million, slightly offset by a decline in loan interest income of \$1.3 million. Non-interest income increased \$24.7 million, or 13.1%, over the prior year largely due to higher private client and institutional trust fees and brokerage fees, partly offset by lower cash sweep commissions. Non-interest expense increased \$11.4 million, or 9.1%, resulting from higher salaries expense (mainly incentive compensation) and higher allocated support costs for information technology. The provision for credit losses increased \$64 thousand, mainly due to higher net charge-offs on revolving home equity loans. Average assets increased \$178.3 million, or 12.7%, during 2021 mainly due to higher personal real estate and consumer loan balances. Average deposits increased \$694.7 million, or 30.6%, due to growth in business demand and interest checking and money market account deposit balances.

In 2020, pre-tax income for the Wealth segment was \$121.9 million, compared to \$105.7 million in 2019, an increase of \$16.2 million, or 15.3%. Net interest income increased \$10.1 million, or 21.0%, due to a \$14.4 million increase in net allocated funding credits and lower deposit interest expense of \$2.8 million, partly offset by a decline in loan interest income of \$7.2 million. Non-interest income increased \$8.1 million, or 4.5%, over the prior year largely due to higher private client and institutional trust fees and mortgage banking revenue. Non-interest expense increased \$2.2 million, or 1.8%, resulting from higher salaries expense and higher allocated service and support costs (mainly mortgage loan processing and information technology), partly offset by lower costs for travel and entertainment. The provision for credit losses decreased \$186 thousand, mainly due to net recoveries on revolving home equity loans. Average assets increased \$118.0 million, or 9.2%, during 2020 mainly due to growth in personal real estate and consumer loan balances. Average deposits increased \$438.7 million, or 23.9%, due to growth in interest checking and money market account balances.

The segment activity, as shown above, includes both direct and allocated items. Amounts in the “Other/Elimination” column include activity not related to the segments, such as certain administrative functions, the investment securities portfolio, and the effect of certain expense allocations to the segments. In accordance with the Company's transfer pricing procedures, the difference between the total provision and total net charge-offs/recoveries is not allocated to a business segment and is included in this category. In 2021, the pre-tax net income in this category was \$47.3 million, compared to a net loss of \$110.9 million in 2020. This increase was due to higher non-interest income of \$14.6 million, partly offset by a decrease in net interest income of \$45.4 million, and an increase in non-interest expense of \$17.1 million. Unallocated securities gains were \$30.1 million in 2021, compared to securities gains of \$11.0 million in 2020. Also, the unallocated provision for credit losses decreased \$187.0 million, primarily driven by a decrease in the allowance for credit losses on loans and the liability for unfunded lending commitments, which are not allocated to segments for management reporting purposes. Net charge-off are allocated to segments when incurred for management reporting purposes. For the year ended December 31, 2021, the Company's provision for credit losses on unfunded lending commitments, which is not allocated to the segments for management reporting, was a benefit of \$14.1 million. Additionally, the provision for credit losses on loans was \$70.8 million lower than net charge-offs, as the provision was a benefit in 2021, while the provision was \$81.2 million in excess of net charge-offs in 2020.

Impact of Recently Issued Accounting Standards

Financial Instruments ASU 2016-13, "Measurement of Credit Losses on Financial Instruments", known as the CECL model, was issued in June 2016, and has been followed by additional clarifying guidance on specified implementation issues. This new standard is effective for fiscal years beginning after December 15, 2019 and was adopted by the Company on January 1, 2020 using the modified retrospective method.

CECL requires the calculation of expected lifetime credit losses and is applied to financial assets measured at amortized cost, including loans and held-to-maturity securities as well as certain unfunded lending commitments such as loan commitments. The standard also changes the impairment model of available for sale debt securities.

The allowance for loan losses under the previously required incurred loss model is different under the requirements of the CECL model. At adoption, a cumulative-effect adjustment for the change in the allowance for credit losses increased retained earnings by \$3.8 million. The cumulative-effect adjustment to retained earnings, net of taxes, was comprised of the impact to the allowance for credit losses on outstanding loans and the impact to the liability for unfunded lending commitments. There was no implementation impact on held-to-maturity debt securities as the Company does not hold any held-to-maturity debt securities.

CECL does not require the use of a specific loss estimation method for purposes of determining the allowance for credit losses. The Company selected a methodology that uses historical net charge-off rates, adjusted by the impacts of a reasonable and supportable forecast and the impacts of other qualitative factors to determine the expected credit losses. Key assumptions include the application of historical loss rates, prepayment speeds, forecast results of a reasonable and supportable period, the period to revert to historical loss rates, and qualitative factors. The forecast is determined using projections of certain macroeconomic variables, such as, unemployment rate, prime rate, BBB corporate yield, and house price index. The model design and methodology requires management judgment.

Upon adoption of CECL, the allowance for credit losses on the commercial portfolio decreased due to the relatively short contractual lives of the commercial loan portfolios coupled with an economic forecast predicting stable macroeconomic factors. The allowance for credit losses on the personal banking portfolio increased upon adoption of CECL, due to the relatively longer contractual lives of certain portfolios, primarily those collateralized with personal real estate. Because the commercial loan portfolio represented 63% of total loans at December 31, 2019, the change in its allowance for credit losses had a more significant impact on the total allowance for credit losses, and resulted in a net reduction in the allowance for credit losses. As a result, the Company's allowance for loan losses to total loans ratio declined from 1.09% at December 31, 2019, to .95% at the time of the Company's adoption of CECL. Offsetting the overall reduction in the allowance for credit losses for outstanding loans was an increase in the liability for unfunded lending commitments, as the loss estimation was required to be expanded over the contractual commitment period. Further discussion of the accounting impact of the Company's adoption is included in Note 1 to the consolidated financial statements.

Additionally, the Company elected to phase the estimated impact of CECL into regulatory capital in accordance with the interim final rule of the Federal Reserve Bank and other U.S. banking agencies. Further discussion of the impact of this election is discussed above in *Capital Management* within *Liquidity and Capital Resources*.

Intangible Assets The FASB issued ASU 2017-04, "Simplifying the Test for Goodwill Impairment", in January 2017. Under current guidance, a goodwill impairment loss is measured by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill by following procedures that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. Under the new amendments, the goodwill impairment test compares the fair value of a reporting unit with its carrying amount and an impairment charge is measured as the amount by which the carrying amount exceeds the reporting unit's fair value. The amendments were effective for impairment tests beginning January 1, 2020, and the Company adopted them on that date. The adoption did not have a significant effect on the Company's consolidated financial statements.

Financial Instruments The FASB issued ASU 2018-13, "Changes to the Disclosure Requirements of Fair Value Measurement", in August 2018. The amendments in the ASU eliminate or modify certain disclosure requirements for fair value measurements in Topic 820, *Fair Value Measurement*. In addition, the amendments in the ASU also require the addition of new disclosure requirements on fair value measurement, including the disclosure of changes in unrealized gains and losses for the period included in AOCI for recurring Level 3 fair value measurements and the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. The guidance was effective January 1, 2020, and the Company adopted the new guidance on that date. The adoption did not have a significant effect on the Company's consolidated financial statements.

Retirement Benefits The FASB issued ASU 2018-14, "Compensation - Retirement Benefits-Defined Benefit Plans-General (Subtopic 715-20)", in August 2018. The amendments in the ASU eliminate disclosures that are no longer considered cost beneficial and clarify specific requirements of disclosures. In addition, the amendments in the ASU also add new disclosures, including the explanation of the reasons for significant gains and losses related to changes in the benefit obligation for the period. The amendments were effective January 1, 2020, and the Company adopted them on that date. The adoption did not have a significant effect on the Company's consolidated financial statements.

Intangible Assets The FASB issued ASU 2018-15, "Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract", in August 2018. Under current guidance, the accounting for implementation costs of a hosting arrangement that is a service contract is not specifically addressed. Under the new amendments, the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract are aligned with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software or hosting arrangements that include an internal-use software license. The guidance was effective January 1, 2020, and the Company adopted it on that date. The adoption did not have a significant effect on the Company's consolidated financial statements.

Income Taxes The FASB issued ASU 2019-12, "Simplifying the Accounting for Income Taxes", in December 2019. The amendments in the ASU eliminate certain exceptions under current guidance for investments, intraperiod allocations, and the methodology for calculating interim income tax. In addition, the amendments also add new guidance to simplify accounting for income taxes. The amendments were effective January 1, 2021, and the Company adopted them on that date. The adoption did not have a significant effect on the Company's consolidated financial statements.

Investment Securities The FASB issued ASU 2020-08, "Codification Improvements to Subtopic 310-20, Receivables - Nonrefundable Fees and Other Costs", in October 2020. The amendments in the ASU clarify that for each reporting period an entity should evaluate whether a callable debt security that has multiple call dates may consider estimates of future principal prepayments when applying the interest method. The guidance was effective January 1, 2021, and the Company adopted it on that date. The adoption did not have a significant effect on the Company's consolidated financial statements.

Reference Rate Reform The FASB issued ASU 2020-04, "Reference Rate Reform (Topic 848) - Facilitation of the Effects of Reference Rate Reform on Financial Reporting", in March 2020, and has been followed by additional clarifying guidance related to derivatives that are modified as a result of reference rate reform. The new guidance provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships, and other transactions affected by reference rate reform if they reference LIBOR or another reference rate expected to be discontinued because of reference rate reform. Further, the guidance applies to derivative instruments that use an interest rate for margining, discounting, or contract price alignment that is modified as a result of reference rate reform. The expedients and exceptions provided by the new guidance do not apply to contract modifications made and hedging relationships entered into or evaluated for effectiveness after December 31, 2022, except for certain hedging relationships existing as of December 31, 2022. In December 2021, the FASB voted to propose extending the sunset date under Topic 848 from December 31, 2022 to December 31, 2024. The change is to align the temporary accounting relief guidance with the expected cessation date of LIBOR, which was postponed by administrators earlier this year to June 2023, a year after the current sunset date of ASU 2020-04.

In order to assess the impact of transition and ensure a successful transition process, the Company established a LIBOR Transition Program led by the LIBOR Transition Steering Committee (the Committee), which is an internal, cross-functional team with representatives from all relevant business lines, support functions and legal counsel. A LIBOR impact and risk assessment has been performed, and the Committee has developed and prioritized action items. All financial contracts that reference LIBOR have been identified and are being monitored on an ongoing basis. The process of remediating these contracts has started, and LIBOR fallback language has been included in key loan provisions of new and renewed loans in preparation for transition from LIBOR. Additionally, changes to the Company's systems have been identified, and the process of installing and testing code was started in the third quarter of 2021. The installation and testing process is expected to be completed in 2022.

Corporate Governance

The Company has adopted a number of corporate governance measures. These include corporate governance guidelines, a code of ethics that applies to its senior financial officers and the charters for its audit and risk committee, its committee on compensation and human resources, and its committee on governance/directors. This information is available on the Company's website www.commercebank.com under "Social Responsibility".

SUMMARY OF QUARTERLY STATEMENTS OF INCOME

Year ended December 31, 2021 <i>(In thousands, except per share data)</i>	For the Quarter Ended			
	12/31/2021	9/30/2021	6/30/2021	3/31/2021
Interest income	\$ 210,479	\$ 216,981	\$ 211,133	\$ 209,697
Interest expense	(2,822)	(2,944)	(3,151)	(3,949)
Net interest income	207,657	214,037	207,982	205,748
Non-interest income	147,699	137,506	139,143	136,045
Investment securities gains (losses), net	(9,706)	13,108	16,804	9,853
Salaries and employee benefits	(132,640)	(132,824)	(130,751)	(129,033)
Other expense	(70,942)	(78,796)	(67,375)	(63,540)
Provision for credit losses	7,054	7,385	45,655	6,232
Income before income taxes	149,122	160,416	211,458	165,305
Income taxes	(33,764)	(34,662)	(45,209)	(32,076)
Non-controlling interest	(452)	(3,193)	(3,923)	(2,257)
Net income attributable to Commerce Bancshares, Inc.	\$ 114,906	\$ 122,561	\$ 162,326	\$ 130,972
Net income per common share — basic*	\$.94	\$ 1.00	\$ 1.32	\$ 1.06
Net income per common share — diluted*	\$.94	\$.99	\$ 1.32	\$ 1.06
Weighted average shares — basic*	120,964	121,628	121,971	122,073
Weighted average shares — diluted*	121,221	121,881	122,273	122,402
Year ended December 31, 2020 <i>(In thousands, except per share data)</i>	For the Quarter Ended			
	12/31/2020	9/30/2020	6/30/2020	3/31/2020
Interest income	\$ 214,726	\$ 223,114	\$ 213,323	\$ 221,485
Interest expense	(4,963)	(7,152)	(10,266)	(20,420)
Net interest income	209,763	215,962	203,057	201,065
Non-interest income	135,117	129,572	117,515	123,663
Investment securities gains (losses), net	12,307	16,155	(4,129)	(13,301)
Salaries and employee benefits	(129,983)	(127,308)	(126,759)	(128,937)
Other expense	(66,327)	(63,550)	(60,753)	(64,761)
Provision for credit losses	4,403	(3,101)	(80,539)	(57,953)
Income before income taxes	165,280	167,730	48,392	59,776
Income taxes	(33,084)	(34,375)	(9,661)	(10,173)
Non-controlling interest	(2,307)	(907)	1,132	2,254
Net income attributable to Commerce Bancshares, Inc.	\$ 129,889	\$ 132,448	\$ 39,863	\$ 51,857
Net income per common share — basic*	\$ 1.05	\$ 1.01	\$.31	\$.40
Net income per common share — diluted*	\$ 1.05	\$ 1.01	\$.31	\$.40
Weighted average shares — basic*	122,081	122,069	122,054	122,508
Weighted average shares — diluted*	122,333	122,266	122,264	122,792
Year ended December 31, 2019 <i>(In thousands, except per share data)</i>	For the Quarter Ended			
	12/31/2019	9/30/2019	6/30/2019	3/31/2019
Interest income	\$ 226,665	\$ 231,743	\$ 238,412	\$ 227,865
Interest expense	(24,006)	(28,231)	(26,778)	(24,377)
Net interest income	202,659	203,512	211,634	203,488
Non-interest income	143,461	132,743	127,259	121,240
Investment securities gains (losses), net	(248)	4,909	(110)	(925)
Salaries and employee benefits	(126,901)	(123,836)	(120,062)	(122,128)
Other expense	(68,273)	(67,184)	(69,717)	(69,297)
Provision for credit losses	(15,206)	(10,963)	(11,806)	(12,463)
Income before income taxes	135,492	139,181	137,198	119,915
Income taxes	(28,214)	(29,101)	(28,899)	(22,860)
Non-controlling interest	(398)	(838)	(328)	83
Net income attributable to Commerce Bancshares, Inc.	\$ 106,880	\$ 109,242	\$ 107,971	\$ 97,138
Net income per common share — basic*	\$.84	\$.85	\$.82	\$.74
Net income per common share — diluted*	\$.84	\$.85	\$.82	\$.74
Weighted average shares — basic*	123,183	124,563	126,744	127,351
Weighted average shares — diluted*	123,492	124,857	127,052	127,687

* Restated for the 5% stock dividend distributed in 2021.

AVERAGE BALANCE SHEETS — AVERAGE RATES AND YIELDS

(Dollars in thousands)	Years Ended December 31								
	2021			2020			2019		
	Average Balance	Interest Income/ Expense	Average Rates Earned/Paid	Average Balance	Interest Income/ Expense	Average Rates Earned/Paid	Average Balance	Interest Income/ Expense	Average Rates Earned/Paid
ASSETS									
Loans: ^(A)									
Business ^(B)	\$ 5,838,682	\$ 186,968	3.20%	\$ 6,387,410	\$ 196,249	3.07%	\$ 5,214,158	\$ 202,308	3.88%
Real estate – construction and land	1,144,741	40,702	3.56	956,999	38,619	4.04	909,367	49,702	5.47
Real estate – business	3,005,943	104,329	3.47	2,959,068	110,080	3.72	2,859,008	127,635	4.46
Real estate – personal	2,797,635	92,267	3.30	2,619,211	94,835	3.62	2,178,716	85,604	3.93
Consumer	2,009,577	76,361	3.80	1,967,133	86,096	4.38	1,930,883	92,414	4.79
Revolving home equity	286,064	9,823	3.43	334,866	12,405	3.70	358,474	18,204	5.08
Consumer credit card	577,411	64,274	11.13	668,810	78,704	11.77	764,828	93,754	12.26
Overdrafts	4,335	—	—	3,351	—	—	9,203	—	—
Total loans	15,664,388	574,724	3.67	15,896,848	616,988	3.88	14,224,637	669,621	4.71
Loans held for sale	21,524	880	4.09	18,685	860	4.60	18,577	1,209	6.51
Investment securities:									
U.S. government & federal agency obligations	796,043	32,888	4.13	780,903	17,369	2.22	851,124	20,968	2.46
Government-sponsored enterprise obligations	50,789	1,180	2.32	105,069	3,346	3.18	191,406	4,557	2.38
State & municipal obligations ^(B)	2,015,635	47,721	2.37	1,562,415	42,260	2.70	1,220,958	38,362	3.14
Mortgage-backed securities	6,985,897	95,175	1.36	5,733,398	109,834	1.92	4,594,576	123,806	2.69
Asset-backed securities	2,824,993	32,705	1.16	1,467,496	29,759	2.03	1,372,574	37,478	2.73
Other debt securities	603,720	12,556	2.08	444,489	10,846	2.44	333,105	9,017	2.71
Trading debt securities ^(B)	36,534	452	1.24	30,321	659	2.17	29,450	886	3.01
Equity securities ^(B)	6,809	2,223	32.65	4,206	2,030	48.26	4,547	1,792	39.41
Other securities ^(B)	171,322	18,924	11.05	133,391	8,732	6.55	134,255	8,466	6.31
Total investment securities	13,491,742	243,824	1.81	10,261,688	224,835	2.19	8,731,995	245,332	2.81
Federal funds sold	677	4	.59	278	3	1.08	2,034	55	2.70
Securities purchased under agreements to resell	1,275,837	37,377	2.93	849,998	40,647	4.78	741,089	15,898	2.15
Interest earning deposits with banks	2,420,533	3,202	.13	1,115,551	2,273	.20	316,299	6,698	2.12
Total interest earning assets	32,874,701	860,011	2.62	28,143,048	885,606	3.15	24,034,631	938,813	3.91
Allowance for credit losses on loans	(188,758)			(196,942)			(160,212)		
Unrealized gain (loss) on debt securities	198,722			292,898			74,605		
Cash and due from banks	339,431			343,516			370,709		
Premises and equipment - net	408,537			399,228			380,350		
Other assets	531,102			634,949			513,442		
Total assets	\$ 34,163,735			\$ 29,616,697			\$ 25,213,525		
LIABILITIES AND EQUITY									
Interest bearing deposits:									
Savings	\$ 1,450,495	1,129	.08	\$ 1,123,413	1,053	.09	\$ 918,896	1,021	.11
Interest checking and money market	13,370,226	6,380	.05	11,539,717	16,798	.15	10,607,224	38,691	.36
Certificates of deposit of less than \$100,000	478,371	1,158	.24	585,695	4,897	.84	610,807	6,368	1.04
Certificates of deposit of \$100,000 and over	1,244,757	2,577	.21	1,358,389	12,948	.95	1,396,760	26,945	1.93
Total interest bearing deposits	16,543,849	11,244	.07	14,607,214	35,696	.24	13,533,687	73,025	.54
Borrowings:									
Federal funds purchased	23,623	17	.07	126,203	794	.63	247,126	5,332	2.16
Securities sold under agreements to repurchase	2,311,214	1,629	.07	1,840,276	5,297	.29	1,574,972	24,083	1.53
Other borrowings ^(C)	808	5	.62	126,585	1,029	.81	43,919	952	2.17
Total borrowings	2,335,645	1,651	.07	2,093,064	7,120	.34	1,866,017	30,367	1.63
Total interest bearing liabilities	18,879,494	12,895	.07%	16,700,278	42,816	.26%	15,399,704	103,392	.67%
Non-interest bearing deposits	11,240,267			8,890,263			6,376,204		
Other liabilities	591,459			715,033			360,587		
Equity	3,452,515			3,311,123			3,077,030		
Total liabilities and equity	\$ 34,163,735			\$ 29,616,697			\$ 25,213,525		
Net interest margin (T/E)		\$ 847,116			\$ 842,790			\$ 835,421	
Net yield on interest earning assets			2.58%			2.99%			3.48%
Percentage increase (decrease) in net interest margin (T/E) compared to the prior year			.51%			.88%			(.55%)

(A) Loans on non-accrual status are included in the computation of average balances. Included in interest income above are loan fees and late charges, net of amortization of deferred loan origination fees and costs, which are immaterial. Credit card income from merchant discounts and net interchange fees are not included in loan income.

Years Ended December 31

2018			2017			2016			Average Balance Five Year Compound Growth Rate
Average Balance	Interest Income/Expense	Average Rates Earned/Paid	Average Balance	Interest Income/Expense	Average Rates Earned/Paid	Average Balance	Interest Income/Expense	Average Rates Earned/Paid	
\$ 4,963,029	\$ 184,837	3.72%	\$ 4,832,045	\$ 154,681	3.20%	\$ 4,652,526	\$ 134,438	2.89%	4.65%
967,320	49,440	5.11	881,879	37,315	4.23	778,822	27,452	3.52	8.01
2,737,820	117,516	4.29	2,694,620	102,009	3.79	2,440,955	89,305	3.66	4.25
2,093,802	80,365	3.84	2,019,674	75,267	3.73	1,936,420	72,417	3.74	7.64
2,010,826	89,074	4.43	2,036,393	81,065	3.98	1,947,240	75,076	3.86	.63
379,715	17,513	4.61	398,611	15,516	3.89	417,514	14,797	3.54	(7.28)
768,789	92,269	12.00	743,885	88,329	11.87	749,589	86,008	11.47	(5.09)
4,778	—	—	4,592	—	—	4,712	—	—	(1.65)
13,926,079	631,014	4.53	13,611,699	554,182	4.07	12,927,778	499,493	3.86	3.91
19,493	1,298	6.66	17,452	1,000	5.73	25,710	1,317	5.12	(3.49)
921,759	21,720	2.36	914,961	19,697	2.15	735,081	15,628	2.13	1.61
308,520	6,098	1.98	452,422	7,321	1.62	591,785	13,173	2.23	(38.80)
1,410,700	42,867	3.04	1,720,723	62,073	3.61	1,753,727	63,261	3.61	2.82
4,203,625	111,686	2.66	3,784,602	89,623	2.37	3,460,821	82,888	2.40	15.08
1,455,690	34,223	2.35	2,083,611	36,757	1.76	2,418,118	35,346	1.46	3.16
340,458	8,912	2.62	330,365	8,410	2.55	331,289	8,382	2.53	12.75
24,731	759	3.07	21,929	583	2.66	19,722	489	2.48	13.12
26,459	11,816	44.66	60,772	2,283	3.76	47,763	2,208	4.62	(32.27)
114,438	12,412	10.85	98,564	10,507	10.66	112,888	7,656	6.78	8.70
8,806,380	250,493	2.84	9,467,949	237,254	2.51	9,471,194	229,031	2.42	7.33
27,026	519	1.92	18,518	230	1.24	12,660	78	.62	(44.33)
696,438	15,881	2.28	688,147	15,440	2.24	791,392	13,544	1.71	10.02
319,948	6,233	1.95	207,269	2,223	1.07	188,581	973	.52	66.60
23,795,364	905,438	3.81	24,011,034	810,329	3.37	23,417,315	744,436	3.18	7.02
(158,791)			(156,572)			(152,628)			4.34
(113,068)			45,760			143,842			6.68
360,732			361,414			381,822			(2.33)
343,636			345,639			350,443			3.12
438,362			424,333			415,677			5.02
\$ 24,666,235			\$ 25,031,608			\$ 24,556,471			6.83
\$ 867,150	973	.11	\$ 819,558	981	.12	\$ 775,121	923	.12	13.35
10,817,169	26,830	.25	10,517,741	16,328	.16	10,285,288	13,443	.13	5.39
603,137	3,215	.53	676,272	2,645	.39	749,261	2,809	.37	(8.58)
1,114,825	14,658	1.31	1,404,960	10,859	.77	1,471,610	8,545	.58	(3.29)
13,402,281	45,676	.34	13,418,531	30,813	.23	13,281,280	25,720	.19	4.49
82,179	1,582	1.93	164,156	1,600	.97	169,711	639	.38	(32.59)
1,431,965	18,073	1.26	1,298,231	8,229	.63	1,096,382	2,676	.24	16.08
1,747	45	2.58	87,696	3,086	3.52	171,255	3,968	2.32	(65.74)
1,515,891	19,700	1.30	1,550,083	12,915	.83	1,437,348	7,283	.51	10.20
14,918,172	65,376	.44%	14,968,614	43,728	.29%	14,718,628	33,003	.22%	5.11
6,728,971			7,176,255			7,049,633			9.78
247,520			250,510			292,145			15.15
2,771,572			2,636,229			2,496,065			6.70
\$ 24,666,235			\$ 25,031,608			\$ 24,556,471			6.83%
\$ 840,062			\$ 766,601			\$ 711,433			
		3.53%			3.19%			3.04%	
		9.58%			7.75%			7.14%	

(B) Interest income and yields are presented on a fully-taxable equivalent basis using a federal income tax rate of 21% in 2021, 2020, 2019 and 2018, and 35% in prior periods. Loan interest income includes tax free loan income (categorized as business loan income) which includes tax equivalent adjustments of \$4,176,000 in 2021, \$4,916,000 in 2020, \$6,282,000 in 2019, \$5,931,000 in 2018, \$10,357,000 in 2017 and \$9,537,000 in 2016. Investment securities interest income includes tax equivalent adjustments of \$7,546,000 in 2021, \$8,042,000 in 2020, \$7,845,000 in 2019, \$10,306,000 in 2018, \$22,565,000 in 2017 and \$21,847,000 in 2016. These adjustments relate to state and municipal obligations, trading securities, equity securities, and other securities.

(C) Interest expense of \$29,000 and \$14,000, which was capitalized on construction projects in 2021 and 2020, respectively, is not deducted from the interest expense shown above.

QUARTERLY AVERAGE BALANCE SHEETS — AVERAGE RATES AND YIELDS

(Dollars in millions)	Year ended December 31, 2021							
	Fourth Quarter		Third Quarter		Second Quarter		First Quarter	
	Average Balance	Average Rates Earned/Paid	Average Balance	Average Rates Earned/Paid	Average Balance	Average Rates Earned/Paid	Average Balance	Average Rates Earned/Paid
ASSETS								
Loans:								
Business ^(A)	\$ 5,193	3.16%	\$ 5,437	3.43%	\$ 6,212	3.15%	\$ 6,533	3.09%
Real estate – construction and land	1,228	3.61	1,169	3.51	1,088	3.56	1,092	3.54
Real estate – business	3,003	3.41	2,983	3.46	3,015	3.49	3,023	3.52
Real estate – personal	2,785	3.21	2,776	3.27	2,804	3.31	2,826	3.40
Consumer	2,044	3.65	2,041	3.71	2,005	3.84	1,947	4.02
Revolving home equity	276	3.47	282	3.46	287	3.43	299	3.38
Consumer credit card	559	11.06	566	11.29	576	11.22	609	10.97
Overdrafts	5	—	5	—	4	—	4	—
Total loans	15,093	3.62	15,259	3.74	15,991	3.65	16,333	3.66
Loans held for sale	11	5.10	16	4.63	23	4.20	36	3.44
Investment securities:								
U.S. government & federal agency obligations	1,009	3.11	728	5.74	720	5.52	725	2.54
Government-sponsored enterprise obligations	51	2.30	51	2.30	51	2.33	51	2.36
State & municipal obligations ^(A)	2,096	2.26	2,040	2.35	1,967	2.41	1,959	2.46
Mortgage-backed securities	7,141	1.40	7,115	1.53	6,685	1.11	6,999	1.39
Asset-backed securities	3,515	1.03	3,028	1.08	2,654	1.25	2,086	1.39
Other debt securities	630	2.07	609	2.04	606	2.06	570	2.15
Trading debt securities ^(A)	46	1.54	32	1.01	35	1.19	32	1.08
Equity securities ^(A)	9	27.64	9	23.92	5	43.10	4	49.56
Other securities ^(A)	190	18.39	183	7.46	157	11.90	154	5.26
Total investment securities	14,687	1.82	13,795	1.89	12,880	1.78	12,580	1.72
Federal funds sold	1	.70	1	.50	1	.60	—	—
Securities purchased under agreements to resell	1,670	1.62	1,633	2.19	937	4.46	850	5.31
Interest earning deposits with banks	2,857	.15	2,603	.15	2,725	.11	1,480	.10
Total interest earning assets	34,319	2.47	33,307	2.62	32,557	2.64	31,279	2.76
Allowance for credit losses on loans	(162)		(172)		(201)		(221)	
Unrealized gain on debt securities	86		230		197		284	
Cash and due from banks	345		329		329		355	
Premises and equipment – net	420		409		404		401	
Other assets	522		523		526		552	
Total assets	\$ 35,530		\$ 34,626		\$ 33,812		\$ 32,650	
LIABILITIES AND EQUITY								
Interest bearing deposits:								
Savings	\$ 1,507	.08	\$ 1,485	.08	\$ 1,474	.08	\$ 1,333	.08
Interest checking and money market	13,875	.04	13,343	.05	13,284	.05	12,971	.06
Certificates of deposit under \$100,000	442	.14	464	.18	491	.27	517	.37
Certificates of deposit \$100,000 & over	1,105	.14	1,290	.14	1,355	.20	1,230	.35
Total interest bearing deposits	16,929	.05	16,582	.06	16,604	.07	16,051	.09
Borrowings:								
Federal funds purchased	21	.11	14	.10	23	.05	37	.05
Securities sold under agreements to repurchase	2,620	.08	2,347	.08	2,143	.06	2,129	.06
Other borrowings	1	—	—	1.14	1	.82	1	.98
Total borrowings	2,642	.08	2,361	.08	2,167	.06	2,167	.06
Total interest bearing liabilities	19,571	.06%	18,943	.06%	18,771	.07%	18,218	.09%
Non-interest bearing deposits	11,919		11,475		11,109		10,439	
Other liabilities	562		668		527		608	
Equity	3,478		3,540		3,405		3,385	
Total liabilities and equity	\$ 35,530		\$ 34,626		\$ 33,812		\$ 32,650	
Net interest margin (T/E)	\$ 210		\$ 217		\$ 211		\$ 209	
Net yield on interest earning assets		2.43%		2.58%		2.60%		2.71%

(A) Includes tax equivalent calculations.

	Year ended December 31, 2020							
	Fourth Quarter		Third Quarter		Second Quarter		First Quarter	
	Average Balance	Average Rates Earned/Paid	Average Balance	Average Rates Earned/Paid	Average Balance	Average Rates Earned/Paid	Average Balance	Average Rates Earned/Paid
<i>(Dollars in millions)</i>								
ASSETS								
Loans:								
Business ^(A)	\$ 6,580	3.01%	\$ 6,710	2.95%	\$ 6,761	2.91%	\$ 5,493	3.50%
Real estate – construction and land	1,033	3.72	974	3.74	896	3.95	924	4.78
Real estate – business	3,030	3.51	2,990	3.53	2,962	3.71	2,854	4.16
Real estate – personal	2,778	3.44	2,722	3.56	2,582	3.69	2,391	3.83
Consumer	1,981	4.07	1,992	4.19	1,944	4.48	1,950	4.78
Revolving home equity	317	3.37	329	3.29	343	3.50	350	4.61
Consumer credit card	638	11.60	646	11.40	664	11.76	728	12.26
Overdrafts	4	—	3	—	3	—	4	—
Total loans	16,361	3.69	16,366	3.69	16,155	3.80	14,694	4.39
Loans held for sale	31	3.54	25	4.25	6	8.03	13	6.15
Investment securities:								
U.S. government & federal agency obligations	775	2.63	770	3.71	776	.46	803	2.09
Government-sponsored enterprise obligations	69	2.23	103	2.17	115	3.51	134	4.19
State & municipal obligations ^(A)	1,967	2.44	1,768	2.53	1,285	2.97	1,223	3.11
Mortgage-backed securities	6,646	1.37	6,260	1.95	5,326	2.17	4,686	2.37
Asset-backed securities	1,820	1.59	1,521	1.90	1,343	2.25	1,183	2.63
Other debt securities	534	2.19	514	2.35	407	2.49	322	2.94
Trading debt securities ^(A)	28	1.40	27	1.66	32	2.93	34	2.52
Equity securities ^(A)	4	50.71	4	47.15	4	48.42	4	46.78
Other securities ^(A)	130	10.03	120	6.74	139	4.36	144	5.31
Total investment securities	11,973	1.81	11,087	2.24	9,427	2.24	8,533	2.61
Federal funds sold	—	1.12	—	—	—	—	—	2.47
Securities purchased under agreements to resell	850	5.24	850	5.26	850	5.08	850	3.53
Interest earning deposits with banks	1,083	.10	1,025	.10	1,755	.10	601	.86
Total interest earning assets	30,298	2.86	29,353	3.07	28,193	3.09	24,691	3.66
Allowance for credit losses on loans	(235)		(240)		(172)		(139)	
Unrealized gain (loss) on debt securities	329		368		281		191	
Cash and due from banks	320		326		358		370	
Premises and equipment – net	406		404		395		392	
Other assets	566		660		710		606	
Total assets	\$ 31,684		\$ 30,871		\$ 29,765		\$ 26,111	
LIABILITIES AND EQUITY								
Interest bearing deposits:								
Savings	\$ 1,234	.09	\$ 1,193	.09	\$ 1,111	.09	\$ 953	.11
Interest checking and money market	12,200	.07	11,732	.10	11,442	.13	10,777	.30
Certificates of deposit under \$100,000	542	.51	573	.71	605	.93	623	1.15
Certificates of deposit \$100,000 & over	1,339	.47	1,448	.69	1,346	1.08	1,299	1.62
Total interest bearing deposits	15,315	.12	14,946	.18	14,504	.25	13,652	.45
Borrowings:								
Federal funds purchased	48	.07	26	.01	223	.04	209	1.46
Securities sold under agreements to repurchase	1,980	.06	1,830	.09	1,769	.13	1,781	.91
Other borrowings	1	—	1	—	345	.82	162	.82
Total borrowings	2,029	.06	1,857	.09	2,337	.22	2,152	.95
Total interest bearing liabilities	17,344	.11%	16,803	.17%	16,841	.25%	15,804	.52%
Non-interest bearing deposits	10,276		9,802		8,843		6,615	
Other liabilities	728		900		765		467	
Equity	3,336		3,366		3,316		3,225	
Total liabilities and equity	\$ 31,684		\$ 30,871		\$ 29,765		\$ 26,111	
Net interest margin (T/E)	\$ 213		\$ 219		\$ 206		\$ 204	
Net yield on interest earning assets		2.80%		2.97%		2.94%		3.33%

(A) Includes tax equivalent calculations.

Item 7a. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The information required by this item is disclosed within the Interest Rate Sensitivity section of Management's Discussion and Analysis of Financial Condition and Results of Operations.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Commerce Bancshares, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Commerce Bancshares, Inc. and subsidiaries (the Company) as of December 31, 2021 and 2020, 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, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2021, 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, 2021, 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, 2022 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company has changed its method of accounting for the recognition and measurement of credit losses as of January 1, 2020 due to the adoption of ASU 2016-13 Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, and its related amendments.

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 loan losses related to loans collectively evaluated for impairment

As discussed in Notes 1 and 2 to the consolidated financial statements, the allowance for credit losses related to loans evaluated on a collective basis (the December 31, 2021 collective ACL) was \$149.9 million of a total allowance for credit losses of \$150.0 million as December 31, 2021. The allowance for credit losses on loans and leases is measured on a collective (pool) basis whereas loans are aggregated into pools based on similar risk characteristics. The Company estimates the collective ACL utilizing average historical loss rates, calculated using historical net charge-offs and outstanding loan balances during a lookback period for each pool. In certain loan pools, if the Company's own historical loss rate is not reflective of the loss expectations, the historical loss rate is augmented by industry and peer data. The calculated average net charge-off rate is then adjusted for current conditions and reasonable and supportable forecasts (forecast adjusted loss rate). These adjustments increase or decrease the average historical loss rate to reflect expectations of future losses given a single path economic forecast of key macroeconomic variables. The adjustments are based on results from various regression models projecting the impact of the macroeconomic variables to loss rates. The forecast is used for a reasonable and supportable period before reverting back to historical averages using a straight-line method. The forecast adjusted loss rate is applied to the amortized cost of loans over the remaining contractual lives, adjusted for expected prepayments. The allowance is further adjusted for certain qualitative factors not included in historical loss rates or the macroeconomic forecast, which include changes in portfolio composition and characteristics, underwriting practices, watchlist trends, or significant unique events or conditions.

We identified the assessment of the December 31, 2021 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 due to significant measurement uncertainty. Specifically, this assessment encompassed the evaluation of the conceptual soundness of the average historical loss model used to estimate the collective ACL, including the following key factors and assumptions (1) historical losses, (2) the reasonable and supportable forecast period, and (3) the development and evaluation of qualitative adjustments. In addition, auditor judgment was required to evaluate the sufficiency of audit evidence obtained.

The following are the primary procedures we performed to address the 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 (1) development and approval of the collective ACL methodology, (2) validation of the collective ACL methodology and model, (3) identification and determination of the key factors and assumptions used to estimate the collective ACL, (4) development of qualitative adjustments, and (5) analysis of the collective ACL results, trends, and ratios. We evaluated the Company's process to develop the collective ACL estimates by testing certain sources of data, factors, and assumptions, and considered the relevance and reliability of such data, factors, and assumptions. We evaluated whether the historical losses in the Company's portfolio are representative of the credit characteristics of the current portfolio. 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,
- evaluating the collective ACL methodology and model for conceptual soundness by inspecting the methodology and model documentation to determine whether the methodology and model are suitable for intended use
- testing the historical losses period and the reasonable and supportable forecast period by comparing them to the Company's business environment and relevant industry practices
- evaluating the methodology used to develop the qualitative factors and the effect of those factors on the collective ACL compared with changes in the nature and volume of the entity's financial assets and identified limitations of the underlying quantitative model.

We assessed the sufficiency of the audit evidence obtained related to the Company's December 31, 2021 collective ACL by evaluating the cumulative results of the audit procedures, qualitative aspects of the Company's accounting practices and potential bias in the accounting estimates.

KPMG LLP

We have served as the Company's auditor since 1971.

Kansas City, Missouri
February 23, 2022

Commerce Bancshares, Inc. and Subsidiaries

CONSOLIDATED BALANCE SHEETS

	December 31	
	2021	2020
	<i>(In thousands)</i>	
ASSETS		
Loans	\$ 15,176,359	\$ 16,329,641
Allowance for credit losses on loans	(150,044)	(220,834)
Net loans	15,026,315	16,108,807
Loans held for sale (including \$5,570,000 and \$39,396,000 of residential mortgage loans carried at fair value at December 31, 2021 and 2020, respectively)	8,615	45,089
Investment securities:		
Available for sale debt, at fair value (amortized cost of \$14,419,133,000 and \$12,097,533,000 at December 31, 2021 and 2020, respectively, and allowance for credit losses of \$— at both December 31, 2021 and 2020)	14,450,027	12,449,264
Trading debt	46,235	35,321
Equity	9,202	4,363
Other	194,047	156,745
Total investment securities	14,699,511	12,645,693
Federal funds sold	2,800	—
Securities purchased under agreements to resell	1,625,000	850,000
Interest earning deposits with banks	3,971,217	1,747,363
Cash and due from banks	305,539	437,563
Premises and equipment – net	388,738	371,083
Goodwill	138,921	138,921
Other intangible assets – net	15,570	11,207
Other assets	506,862	567,248
Total assets	\$ 36,689,088	\$ 32,922,974
LIABILITIES AND STOCKHOLDERS' EQUITY		
Deposits:		
Non-interest bearing	\$ 11,772,374	\$ 10,497,598
Savings, interest checking and money market	16,598,085	14,604,456
Certificates of deposit of less than \$100,000	435,960	529,802
Certificates of deposit of \$100,000 and over	1,006,654	1,314,889
Total deposits	29,813,073	26,946,745
Federal funds purchased and securities sold under agreements to repurchase	3,022,967	2,098,383
Other borrowings	12,560	802
Other liabilities	392,164	477,072
Total liabilities	33,240,764	29,523,002
Commerce Bancshares, Inc. stockholders' equity:		
Common stock, \$5 par value		
Authorized 140,000,000; issued 122,160,705 shares at December 31, 2021 and 117,870,372 shares at December 31, 2020	610,804	589,352
Capital surplus	2,689,894	2,436,288
Retained earnings	92,493	73,000
Treasury stock of 476,392 shares at December 31, 2021 and 497,413 shares at December 31, 2020, at cost	(32,973)	(32,970)
Accumulated other comprehensive income	77,080	331,377
Total Commerce Bancshares, Inc. stockholders' equity	3,437,298	3,397,047
Non-controlling interest	11,026	2,925
Total equity	3,448,324	3,399,972
Total liabilities and equity	\$ 36,689,088	\$ 32,922,974

See accompanying notes to consolidated financial statements.

Commerce Bancshares, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF INCOME

<i>(In thousands, except per share data)</i>	For the Years Ended December 31		
	2021	2020	2019
INTEREST INCOME			
Interest and fees on loans	\$ 570,549	\$ 612,072	\$ 663,338
Interest on loans held for sale	880	860	1,209
Interest on investment securities	236,278	216,793	237,487
Interest on federal funds sold	4	3	55
Interest on securities purchased under agreements to resell	37,377	40,647	15,898
Interest on deposits with banks	3,202	2,273	6,698
Total interest income	848,290	872,648	924,685
INTEREST EXPENSE			
Interest on deposits:			
Savings, interest checking and money market	7,509	17,851	39,712
Certificates of deposit of less than \$100,000	1,158	4,897	6,368
Certificates of deposit of \$100,000 and over	2,577	12,948	26,945
Interest on federal funds purchased and securities sold under agreements to repurchase	1,646	6,091	29,415
Interest on other borrowings	(24)	1,014	952
Total interest expense	12,866	42,801	103,392
Net interest income	835,424	829,847	821,293
Provision for credit losses	(66,326)	137,190	50,438
Net interest income after credit losses	901,750	692,657	770,855
NON-INTEREST INCOME			
Bank card transaction fees	167,891	151,797	167,879
Trust fees	188,227	160,637	155,628
Deposit account charges and other fees	97,217	93,227	95,983
Capital market fees	15,943	14,582	8,146
Consumer brokerage services	18,362	15,095	15,804
Loan fees and sales	29,720	26,684	15,767
Other	43,033	43,845	65,496
Total non-interest income	560,393	505,867	524,703
INVESTMENT SECURITIES GAINS, NET	30,059	11,032	3,626
NON-INTEREST EXPENSE			
Salaries and employee benefits	525,248	512,987	492,927
Net occupancy	48,185	46,645	47,157
Equipment	18,089	18,839	19,061
Supplies and communication	17,118	17,419	20,394
Data processing and software	101,792	95,325	92,899
Marketing	21,856	19,734	21,914
Other	73,613	57,429	73,046
Total non-interest expense	805,901	768,378	767,398
Income before income taxes	686,301	441,178	531,786
Less income taxes	145,711	87,293	109,074
Net income	540,590	353,885	422,712
Less non-controlling interest expense (income)	9,825	(172)	1,481
Net income attributable to Commerce Bancshares, Inc.	530,765	354,057	421,231
Less preferred stock dividends	—	11,966	9,000
Net income available to common shareholders	\$ 530,765	\$ 342,091	\$ 412,231
Net income per common share - basic	\$ 4.32	\$ 2.77	\$ 3.25
Net income per common share - diluted	\$ 4.31	\$ 2.77	\$ 3.25

See accompanying notes to consolidated financial statements.

Commerce Bancshares, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

<i>(In thousands)</i>	For the Years Ended December 31		
	2021	2020	2019
Net income	\$ 540,590	\$ 353,885	\$ 422,712
Other comprehensive income (loss):			
Net unrealized losses on securities for which a portion of an other-than-temporary impairment has been recorded in earnings	—	—	(632)
Net unrealized gains (losses) on other securities	(240,627)	161,728	151,122
Change in pension loss	4,450	(3,178)	1,167
Unrealized gains (losses) on cash flow hedge derivatives	(18,120)	62,383	23,456
Other comprehensive income (loss)	(254,297)	220,933	175,113
Comprehensive income	286,293	574,818	597,825
Less non-controlling interest (income) loss	9,825	(172)	1,481
Comprehensive income attributable to Commerce Bancshares, Inc.	\$ 276,468	\$ 574,990	\$ 596,344

See accompanying notes to consolidated financial statements.

Commerce Bancshares, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	Commerce Bancshares, Inc. Shareholders					Accumulated Other Comprehensive Income (Loss)	Non- Controlling Interest	Total
	Preferred Stock	Common Stock	Capital Surplus	Retained Earnings	Treasury Stock			
<i>(In thousands, except per share data)</i>								
Balance at December 31, 2018	\$ 144,784	\$ 559,432	\$ 2,084,824	\$ 241,163	\$ (34,236)	\$ (64,669)	\$ 5,851	\$ 2,937,149
Net income				421,231			1,481	422,712
Other comprehensive loss						175,113		175,113
Distributions to non-controlling interest							(3,544)	(3,544)
Purchases of treasury stock					(134,904)			(134,904)
Accelerated share repurchase agreements					(150,000)			(150,000)
Cash dividends paid on common stock (\$0.898 per share)				(113,466)				(113,466)
Cash dividends paid on preferred stock (\$1.500 per depositary share)				(9,000)				(9,000)
Stock-based compensation			13,854					13,854
Issuance under stock purchase and equity compensation plans			(19,293)		20,644			1,351
5% stock dividend, net		4,546	72,079	(338,366)	260,948			(793)
Balance at December 31, 2019	144,784	563,978	2,151,464	201,562	(37,548)	110,444	3,788	3,138,472
Adoption of ASU 2016-13				3,766				3,766
Adjusted Balance December 31, 2019	144,784	563,978	2,151,464	205,328	(37,548)	110,444	3,788	3,142,238
Net income				354,057			(172)	353,885
Other comprehensive income						220,933		220,933
Distributions to non-controlling interest							(691)	(691)
Redemption of preferred stock	(144,784)			(5,216)				(150,000)
Purchases of treasury stock					(54,163)			(54,163)
Cash dividends paid on common stock (\$0.980 per share)				(120,818)				(120,818)
Cash dividends paid on preferred stock (\$1.125 per depositary share)				(6,750)				(6,750)
Stock-based compensation			14,915					14,915
Issuance under stock purchase and equity compensation plans			(24,271)		25,580			1,309
5% stock dividend, net		25,374	294,180	(353,601)	33,161			(886)
Balance at December 31, 2020	—	589,352	2,436,288	73,000	(32,970)	331,377	2,925	3,399,972
Net income				530,765			9,825	540,590
Other comprehensive income						(254,297)		(254,297)
Distributions to non-controlling interest							(1,065)	(1,065)
Purchases of treasury stock					(129,361)			(129,361)
Sale of non-controlling interest of subsidiary			659				(659)	—
Cash dividends paid on common stock (\$1.000 per share)				(122,693)				(122,693)
Stock-based compensation			15,415					15,415
Issuance under stock purchase and equity compensation plans			(21,799)		22,710			911
5% stock dividend, net		21,452	259,331	(388,579)	106,648			(1,148)
Balance at December 31, 2021	\$ —	\$ 610,804	\$ 2,689,894	\$ 92,493	\$ (32,973)	\$ 77,080	\$ 11,026	\$ 3,448,324

See accompanying notes to consolidated financial statements.

Commerce Bancshares, Inc. and Subsidiaries

CONSOLIDATED STATEMENTS OF CASH FLOWS

<i>(In thousands)</i>	For the Years Ended December 31		
	2021	2020	2019
OPERATING ACTIVITIES			
Net income	\$ 540,590	\$ 353,885	\$ 422,712
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for credit losses	(66,326)	137,190	50,438
Provision for depreciation and amortization	44,866	43,769	41,145
Amortization of investment security premiums, net	66,934	59,863	27,631
Deferred income tax (benefit) expense	25,613	(19,540)	14,195
Investment securities gains, net (A)	(30,059)	(11,032)	(3,626)
Net gains on sales of loans held for sale	(22,641)	(16,406)	(10,127)
Proceeds from sales of loans held for sale	576,864	297,267	259,153
Originations of loans held for sale	(524,597)	(313,329)	(244,976)
Net (increase) decrease in trading securities, excluding unsettled transactions	(29,885)	(770)	3,863
Stock-based compensation	15,415	14,915	13,854
(Increase) decrease in interest receivable	19,788	(13,399)	3,316
Increase (decrease) in interest payable	(3,179)	(9,444)	5,586
Increase (decrease) in income taxes payable	(5,175)	12,345	14,465
Gain on sale of Corporate Trust business	—	—	(11,472)
Proceeds from terminated interest rate floors	—	156,740	—
Other changes, net	(10,486)	(68,062)	(73,363)
Net cash provided by operating activities	597,722	623,992	512,794
INVESTING ACTIVITIES			
Distributions received from equity-method investment	13,540	—	—
Proceeds from sales of investment securities (A)	80,811	602,477	413,203
Proceeds from maturities/pay downs of investment securities (A)	3,459,106	2,673,510	1,558,244
Purchases of investment securities (A)	(5,947,891)	(6,991,460)	(1,863,180)
Net (increase) decrease in loans	1,134,533	(1,643,775)	(647,890)
Securities purchased under agreements to resell	(900,000)	—	(150,000)
Repayments of securities purchased under agreements to resell	125,000	—	—
Purchases of premises and equipment	(56,716)	(33,134)	(42,575)
Sales of premises and equipment	8,859	1,878	2,033
Net cash used in investing activities	(2,082,758)	(5,390,504)	(730,165)
FINANCING ACTIVITIES			
Net increase in non-interest bearing, savings, interest checking and money market deposits	3,291,466	6,316,100	85,438
Net increase (decrease) in certificates of deposit	(402,077)	(163,321)	349,890
Net increase (decrease) in federal funds purchased and short-term securities sold under agreements to repurchase	924,584	247,611	(105,617)
Net increase (decrease) in other borrowings	11,758	(1,616)	(6,394)
Preferred stock redemption	—	(150,000)	—
Purchases of treasury stock	(129,361)	(54,163)	(134,904)
Accelerated share repurchase agreement	—	—	(150,000)
Issuance of stock under equity compensation plans	(15)	(11)	(8)
Cash dividends paid on common stock	(122,693)	(120,818)	(113,466)
Cash dividends paid on preferred stock	—	(6,750)	(9,000)
Net cash provided by (used in) financing activities	3,573,662	6,067,032	(84,061)
Increase (decrease) in cash, cash equivalents and restricted cash	2,088,626	1,300,520	(301,432)
Cash, cash equivalents and restricted cash at beginning of year	2,208,328	907,808	1,209,240
Cash, cash equivalents and restricted cash at end of year	\$ 4,296,954	\$ 2,208,328	\$ 907,808
Income tax payments, net	\$ 119,665	\$ 90,066	\$ 76,168
Interest paid on deposits and borrowings	16,045	52,245	97,806
Loans transferred to foreclosed real estate	182	93	581

(A) Available for sale debt securities, equity securities, and other securities.
See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

Nature of Operations

Commerce Bancshares, Inc. and its subsidiaries (the Company) conducts its principal activities from approximately 287 branch and ATM locations throughout Missouri, Kansas, Illinois, Oklahoma and Colorado. Principal activities include retail and commercial banking, investment management, securities brokerage, mortgage banking, trust, and private banking services. The Company also maintains commercial banking offices in Dallas, Houston, Cincinnati, Nashville, Des Moines, Indianapolis, and Grand Rapids and operates a commercial payments business with sales representatives covering the continental U.S.

Basis of Presentation, Use of Estimates, and Subsequent Events

The consolidated financial statements include the accounts of the Company and its majority-owned subsidiaries. All material inter-company transactions have been eliminated through consolidation. Certain prior year amounts have been reclassified to conform to the current year presentation. Such reclassifications had no effect on net income or total assets.

The Company follows accounting principles generally accepted in the United States of America (GAAP) and reporting practices applicable to the banking industry. The preparation of financial statements under GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and notes. These estimates are based on information available to management at the time the estimates are made. While the consolidated financial statements reflect management's best estimates and judgments, actual results could differ from those estimates.

Management has evaluated subsequent events for potential recognition or disclosure through the date these consolidated financial statements were issued.

The Company, in the normal course of business, engages in a variety of activities that involve variable interest entities (VIEs). A VIE is a legal entity that lacks equity investors or whose equity investors do not have a controlling financial interest in the entity through their equity investments. However, an enterprise is deemed to have a controlling financial interest and is the primary beneficiary of a VIE if it has both the power to direct the activities of the VIE that most significantly impact the VIE's economic performance and an obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE. An enterprise that is the primary beneficiary must consolidate the VIE. The Company's interests in VIEs are evaluated to determine if the Company is the primary beneficiary both at inception and when there is a change in circumstances that requires a reconsideration.

The Company is considered to be the primary beneficiary in a rabbi trust related to a deferred compensation plan offered to certain employees. The assets and liabilities of this trust, which are included in the accompanying consolidated balance sheets, are not significant. The Company also has variable interests in certain entities in which it is not the primary beneficiary. These entities are not consolidated. These interests include certain investments in entities accounted for using the equity method of accounting, as well as affordable housing limited partnership interests, holdings in its investment portfolio of various asset and mortgage-backed bonds that are issued by securitization trusts, and managed discretionary trust assets that are not included in the accompanying consolidated balance sheets.

Adoption of ASU 2016-13

The Company adopted ASU 2016-13 Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, and its related amendments on January 1, 2020. Further discussion of the impact of adoption is included below, as well as in Note 2, Loans and Allowance for Credit Losses, and Note 3, Investment Securities. Known as the current expected credit loss (CECL), the standard replaced the incurred loss methodology. The new measurement approach requires the calculation of expected lifetime credit losses and is applied to financial assets measured at amortized cost, including loans and held-to-maturity securities, as well as certain off-balance sheet credit exposures such as unfunded lending commitments. The standard also changed the impairment model of available for sale debt securities. Also see "Allowance for Credit Losses on Loans", "Liability for Unfunded Lending Commitments" and "Allowance for Credit Losses on Available for Sale Debt Securities" within Note 1 below.

The Company adopted CECL using the modified retrospective method for all financial assets measured at amortized cost and for unfunded lending commitments. Results for reporting periods beginning on or after January 1, 2020 are presented under CECL, while prior period amounts continue to be reported in accordance with previously applicable GAAP. The

Company recorded a net increase to retained earnings of \$3.8 million as of January 1, 2020 for the cumulative effect of adopting CECL. The transition adjustment included a decrease to the allowance for credit losses of \$29.7 million related to the commercial loan portfolio, an increase to the allowance for credit losses of \$8.7 million related to the personal banking loan portfolio, an increase to the liability for unfunded commitments of \$16.1 million, and a tax impact of \$1.2 million.

The table below illustrates the adoption impact of ASU 2016-13 on the Company's allowance for credit losses.

(In thousands)	December 31, 2019		January 1, 2020	
	Allowance for loan losses ending balance	CECL Adjustment	Allowance for credit losses beginning balance	
Commercial:				
Business	\$ 44,268	\$ (6,328)	\$ 37,940	
Real estate - construction and land	21,589	(12,385)	9,204	
Real estate - business	25,903	(10,998)	14,905	
Total Commercial:	91,760	(29,711)	62,049	
Personal Banking:				
Real estate - personal	3,125	1,730	4,855	
Consumer	15,932	(1,414)	14,518	
Revolving home equity	638	986	1,624	
Consumer credit card	47,997	8,498	56,495	
Overdrafts	1,230	(1,128)	102	
Total Personal Banking:	68,922	8,672	77,594	
Allowance for credit losses on loans	160,682	(21,039)	139,643	
Liability for unfunded lending commitments	1,075	16,090	17,165	
Total allowance for credit losses	\$ 161,757	\$ (4,949)	\$ 156,808	

Cash, Cash Equivalents and Restricted Cash

In the accompanying consolidated statements of cash flows, cash and cash equivalents include “Cash and due from banks”, “Federal funds sold and short-term securities purchased under agreements to resell”, and “Interest earning deposits with banks” as segregated in the accompanying consolidated balance sheets. Restricted cash is comprised of cash collateral on deposit with another financial institution to secure interest rate swap transactions. Restricted cash is included in other assets in the consolidated balance sheets and totaled \$17.4 million and \$23.4 million at December 31, 2021 and 2020, respectively.

During 2020, the Federal Reserve System, which historically required the Bank to maintain cash balances at the Federal Reserve Bank, reduced the reserve requirement ratios to zero percent effective March 26, 2020. Other interest earning cash balances held at the Federal Reserve Bank totaled \$4.0 billion at December 31, 2021.

Loans and Related Earnings

The Company's portfolio of held-for-investment loans includes a net investment in direct financing and sales type leases to commercial and industrial and tax-exempt entities, and collectively, the Company's portfolio of loans and leases is referred to as its "loan portfolio" or "loans". Loans that management has the intent and ability to hold for the foreseeable future or until maturity or pay-off are reported at amortized cost, excluding accrued interest receivable. Amortized cost is the outstanding principal balance, net of any deferred fees and costs on originated loans. Origination fee income received on loans and amounts representing the estimated direct costs of origination are deferred and amortized to interest income over the life of the loan using the interest method.

Interest on loans is accrued based upon the principal amount outstanding. The Company has elected the practical expedient to exclude all accrued interest receivable from all required disclosures of amortized cost. Additionally, an election was made not to measure an allowance for credit losses for accrued interest receivables. The Company has also made the election that all interest accrued but ultimately not received is reversed against interest income.

Loan and commitment fees, net of costs, are deferred and recognized in interest income over the term of the loan or commitment as an adjustment of yield. Annual fees charged on credit card loans are capitalized to principal and amortized over

12 months to loan fees and sales. Other credit card fees, such as cash advance fees and late payment fees, are recognized in income as an adjustment of yield when charged to the cardholder's account.

Past Due Loans

Management reports loans as past due on the day following the contractual repayment date if payment was not received by end of the business day. Loans, or portions of loans, are charged off to the extent deemed uncollectible. Loan charge-offs reduce the allowance for credit losses on loans, and recoveries of loans previously charged off are added back to the allowance. Business, business real estate, construction and land real estate, and personal real estate loans are generally charged down to estimated collectible balances when they are placed on non-accrual status. Consumer loans and related accrued interest are normally charged down to the fair value of related collateral (or are charged off in full if not collateralized) once the loans are more than 120 to 180 days delinquent, depending on the type of loan. Revolving home equity loans are charged down to the fair value of the related collateral once the loans are more than 180 days past due. Credit card loans are charged off against the allowance for credit losses when the receivable is more than 180 days past due.

Non-Accrual Loans

Loans are placed on non-accrual status when management does not expect to collect payments consistent with acceptable and agreed upon terms of repayment. Business, construction real estate, business real estate, and personal real estate loans that are contractually 90 days past due as to principal and/or interest payments are generally placed on non-accrual status, unless they are both well-secured and in the process of collection. Consumer, revolving home equity and credit card loans are exempt under regulatory rules from being classified as non-accrual. When a loan is placed on non-accrual status, any interest previously accrued but not collected is reversed against current interest income, and the loan is charged off to the extent uncollectible. Principal and interest payments received on non-accrual loans are generally applied to principal. Interest is included in income only after all previous loan charge-offs have been recovered and is recorded only as received. The loan is returned to accrual status only when the borrower has brought all past due principal and interest payments current, and, in the opinion of management, the borrower has demonstrated the ability to make future payments of principal and interest as scheduled. A six month history of sustained payment performance is generally required before reinstatement of accrual status.

Troubled Debt Restructurings

A loan is accounted for as a troubled debt restructuring if the Company, for economic or legal reasons related to the borrower's financial difficulties, grants a concession to the borrower that it would not otherwise consider. A troubled debt restructuring typically involves (1) modification of terms such as a reduction of the stated interest rate, loan principal, or accrued interest, (2) a loan renewal at a stated interest rate lower than the current market rate for a new loan with similar risk, or (3) debt that was not reaffirmed in bankruptcy. Business, business real estate, construction and land real estate and personal real estate troubled debt restructurings with impairment charges are placed on non-accrual status. The Company measures the impairment loss of a troubled debt restructuring at the time of modification based on the present value of expected future cash flows. Subsequent to modification, troubled debt restructurings are subject to the Company's allowance for credit loss model, which is discussed below and in Note 2, Loans and Allowance for Credit Losses. Troubled debt restructurings that are performing under their contractual terms continue to accrue interest, which is recognized in current earnings.

Section 4013 of the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act"), which was signed into law on March 27, 2020, provided financial institutions an option to suspend the requirement to categorize certain loan modifications related to the global Coronavirus Disease 2019 (COVID-19) pandemic as troubled debt restructurings. The 2021 Consolidated Appropriations Act signed on December 27, 2020 extends this temporary suspension through January 1, 2022. The Company elected such option from March 27, 2020 through December 31, 2021. Refer to Note 2 for additional information.

Loans Held For Sale

Loans held for sale include student loans and certain fixed rate residential mortgage loans. These loans are typically classified as held for sale upon origination based upon management's intent to sell the production of these loans. The student loans are carried at the lower of aggregate cost or fair value, and their fair value is determined based on sale contract prices. The mortgage loans are carried at fair value under the elected fair value option. Their fair value is based on secondary market prices for loans with similar characteristics, including an adjustment for embedded servicing value. Changes in fair value and gains and losses on sales are included in loan fees and sales. Deferred fees and costs related to these loans are not amortized but are recognized as part of the cost basis of the loan at the time it is sold. Interest income related to loans held for sale is accrued based on the principal amount outstanding and the loan's contractual interest rate.

Occasionally, other types of loans may be classified as held for sale in order to manage credit concentration. These loans are carried at the lower of cost or fair value with gains and losses on sales recognized in loan fees and sales.

Allowance for Credit Losses on Loans

The allowance for credit losses on loans is a valuation amount that is deducted from the amortized cost basis of loans not held at fair value to present the net amount expected to be collected over the contractual term of the loans. The allowance for credit losses on loans is measured using relevant information about past events, including historical credit loss experience on loans with similar risk characteristics, current conditions, and reasonable and supportable forecasts that affect the collectability of the remaining cash flows over the contractual term of the loans. An allowance will be created upon origination or acquisition of a loan and is updated at subsequent reporting dates. The methodology is applied consistently for each reporting period and reflects management's current expectations of credit losses. Changes to the allowance for credit losses on loans resulting from periodic evaluations are recorded through increases or decreases to the credit loss expense for loans, which is recorded in provision for credit losses on the consolidated statements of income. Loans that are deemed to be uncollectible are charged off against the related allowance for credit losses on loans.

The allowance for credit losses on loans is measured on a collective (pool) basis. Loans are aggregated into pools based on similar risk characteristics including borrower type, collateral type and expected credit loss patterns. The allowance for credit losses on a troubled debt restructuring which continues to accrue interest is also measured on a collective basis. Loans that do not share similar risk characteristics, primarily large loans on non-accrual status, are evaluated on an individual basis. The allowance related to these large non-accrual loans is measured using the fair value of the collateral (less selling cost, if applicable) as most of these loans are collateral dependent and the borrower is facing financial difficulty.

As noted above, the allowance for credit losses on loans does not include an allowance for accrued interest.

Liability for Unfunded Lending Commitments

The Company's unfunded lending commitments are primarily unfunded loan commitments and letters of credit. Expected credit losses for these unfunded lending commitments are calculated over the contractual period during which the Company is exposed to the credit risk. The methodology used to measure credit losses for unfunded lending commitments is the same as the methodology used for loans, however, the estimate of credit risk for unfunded lending commitments takes into consideration the likelihood that funding will occur. The liability for unfunded lending commitments excludes any exposures that are unconditionally cancellable by the Company. The loss estimate is recorded within other liabilities on the consolidated balance sheet. Changes to the liability for unfunded lending commitments are recorded through increases or decreases to the provision for credit losses on the consolidated statements of income.

Direct Financing and Sales Type Leases

The net investment in direct financing and sales type leases is included in loans on the Company's consolidated balance sheets and consists of the present values of the sum of the future minimum lease payments and estimated residual value of the leased asset. Revenue consists of interest earned on the net investment and is recognized over the lease term as a constant percentage return thereon.

Investments in Debt and Equity Securities

The majority of the Company's investment portfolio is comprised of debt securities that are classified as available for sale. From time to time, the Company sells securities and utilizes the proceeds to reduce borrowings, fund loan growth, or modify its interest rate profile. Securities classified as available for sale are carried at fair value. Changes in fair value are reported in other comprehensive income (loss), a component of stockholders' equity. Securities are periodically evaluated for credit losses in accordance with the guidance provided in Accounting Standards Codification (ASC) 326. Further discussion of this evaluation is provided in "*Allowance for Credit Losses on Available for Sale Debt Securities*" below. Gains and losses realized upon sales of securities are calculated using the specific identification method and are included in investment securities gains (losses), net, in the consolidated statements of income. Purchase premiums and discounts are amortized to interest income using a level yield method over the estimated lives of the securities. For certain callable debt securities purchased at a premium, the amortization is recorded to the earliest call date. For mortgage and asset-backed securities, prepayment experience is evaluated quarterly to determine if a change in a bond's estimated remaining life is necessary. A corresponding adjustment is then made in the related amortization of premium or discount accretion.

Accrued interest receivable on available for sale debt securities is reported in other assets on the consolidated balance sheet. The Company has elected the practical expedient to exclude the accrued interest from all required disclosures of amortized cost of debt securities. Additionally, an election was made not to measure an allowance for credit losses for accrued interest receivables. Interest accrued but not received is reversed against interest income.

Equity securities include common and preferred stock and are carried at fair value. Certain equity securities do not have readily determinable fair values. The Company has elected under ASU 2016-01 to measure these equity securities without a readily determinable fair value 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. The Company has not recorded any impairment or other adjustments to the carrying amount of these equity securities without readily determinable fair values.

Other securities include the Company's investments in Federal Reserve Bank stock and Federal Home Loan Bank stock, equity method investments, and private equity investments. Federal Reserve Bank stock and Federal Home Loan Bank stock are held for debt and regulatory purposes, are carried at cost and are periodically evaluated for impairment. The Company's equity method investments are carried at cost, adjusted to reflect the Company's portion of income, loss, or dividends of the investee. The Company's private equity investments in portfolio concerns, consisting of both debt and equity instruments, are held by the Company's private equity subsidiary, which is a small business investment company licensed by the Small Business Administration. The Company's private equity investments are carried at fair value in accordance with investment company accounting guidance (ASC 946-10-15), with changes in fair value reported in current income. In the absence of readily ascertainable market values, fair value is estimated using internally developed methods. Changes in fair value which are recognized in current income and gains and losses from sales are included in investment securities gains (losses), net, in the consolidated statements of income.

Trading account securities, which are debt securities bought and held principally for the purpose of resale in the near term, are carried at fair value. Gains and losses, both realized and unrealized, are recorded in non-interest income.

Purchases and sales of securities are recognized on a trade date basis. A receivable or payable is recognized for transaction pending settlements.

Allowance for Credit Losses on Available for Sale Debt Securities

For available for sale debt securities in an unrealized loss position, the entire loss in fair value is required to be recognized in current earnings if the Company intends to sell the securities or believes it more likely than not that it will be required to sell the security before the anticipated recovery. If neither condition is met, and the Company does not expect to recover the amortized cost basis, the Company determines whether the decline in fair value resulted from credit losses or other factors. If the assessment indicates that a credit loss exists, the present value of cash flows expected to be collected is compared to the amortized cost basis of the security. If the present value of cash flows expected to be collected is less than the amortized cost basis, a credit loss has occurred, and an allowance for credit losses is recorded. The allowance for credit losses is limited by the amount that the fair value is less than the amortized cost basis. Any impairment not recorded through the provision for credit losses is recognized in other comprehensive income.

Changes in the allowance for credit losses are recorded as a provision for (or reversal of) credit losses on the consolidated statements of income. Losses are charged against the allowance for credit losses on securities when management believes the uncollectibility of an available for sale security is confirmed or when either of the conditions regarding intent or requirement to sell is met.

Accrued interest receivable on available for sale debt securities is excluded from the estimate of credit losses.

Securities Purchased under Agreements to Resell and Securities Sold under Agreements to Repurchase

Securities purchased under agreements to resell and securities sold under agreements to repurchase are treated as collateralized financing transactions, not as purchases and sales of the underlying securities. The agreements are recorded at the amount of cash advanced or received.

The Company periodically enters into securities purchased under agreements to resell with large financial institutions. Securities pledged by the counterparties to secure these agreements are delivered to a third party custodian.

Securities sold under agreements to repurchase are a source of funding to the Company and are offered to cash management customers as an automated, collateralized investment account. From time to time, securities sold may also be used by the Bank to obtain additional borrowed funds at favorable rates. These borrowings are secured by a portion of the Company's investment security portfolio and delivered either to the dealer custody account at the Federal Reserve Bank or to the applicable counterparty.

The fair value of collateral either received from or provided to a counterparty is monitored daily, and additional collateral is obtained, returned, or provided by the Company in order to maintain full collateralization for these transactions.

As permitted by current accounting guidance, the Company offsets certain securities purchased under agreements to resell against securities sold under agreements to repurchase in its balance sheet presentation. These agreements are further discussed in Note 20, Resale and Repurchase Agreements.

Premises and Equipment

Land is stated at cost, and buildings and equipment are stated at cost, including capitalized interest when appropriate, less accumulated depreciation. Depreciation is computed using a straight-line method, utilizing estimated useful lives; generally 30 years for buildings, 10 years for building improvements, and 3 to 10 years for equipment. Leasehold improvements are amortized over the shorter of 10 years or the remaining lease term. Maintenance and repairs are charged to non-interest expense as incurred.

Premises and equipment also includes the Company's right-of-use leased assets, which is mainly comprised of operating leases for branches, office space, ATM locations, and certain equipment.

Foreclosed Assets

Foreclosed assets consist of property that has been repossessed and is comprised of commercial and residential real estate and other non-real estate property, including auto and recreational and marine vehicles. The assets are initially recorded at fair value less estimated selling costs, establishing a new cost basis. Initial valuation adjustments are charged to the allowance for credit losses. Fair values are estimated primarily based on appraisals, third-party price opinions, or internally developed pricing models. After initial recognition, fair value estimates are updated periodically. Declines in fair value below cost are recognized through valuation allowances which may be reversed when supported by future increases in fair value. These valuation adjustments, in addition to gains and losses realized on sales and net operating expenses, are recorded in other non-interest expense. Foreclosed assets are included in other assets on the consolidated balance sheets.

Goodwill and Intangible Assets

Goodwill and intangible assets that have indefinite useful lives, such as property easement intangible assets, are not amortized but are assessed for impairment on an annual basis or more frequently in certain circumstances. When testing for goodwill impairment, the Company may initially perform a qualitative assessment. Based on the results of this qualitative assessment, if the Company concludes it is more likely than not that a reporting unit's fair value is less than its carrying amount, a quantitative analysis is performed. Quantitative valuation methodologies include a combination of formulas using current market multiples, based on recent sales of financial institutions within the Company's geographic marketplace. If the fair value of a reporting unit is less than the carrying amount, an impairment has occurred and is measured as the amount by which the carrying amount exceeds the reporting unit's fair value. The Company has not recorded impairment resulting from goodwill impairment tests. However, adverse changes in the economic environment, operations of the reporting unit, or other factors could result in a decline in fair value.

Intangible assets that have finite useful lives, such as core deposit intangibles and mortgage servicing rights, are amortized over their estimated useful lives. Core deposit intangibles are generally amortized over periods of 8 to 14 years, representing their estimated lives, using accelerated methods. Mortgage servicing rights are amortized in proportion to and over the period of estimated net servicing income, considering appropriate prepayment assumptions. Core deposit intangibles are reviewed for impairment whenever events or changes in circumstances indicate their carrying amount may not be recoverable. Impairment is indicated if the sum of the undiscounted estimated future net cash flows is less than the carrying value of the intangible asset. Mortgage servicing rights, while initially recorded at fair value, are subsequently amortized and carried at the lower of the initial capitalized amount (net of accumulated amortization), or estimated fair value. The Company evaluates its mortgage servicing rights for impairment on a quarterly basis, using estimated prepayment speeds of the underlying mortgage loans serviced and stratifications based on the risk characteristics of the underlying loans. A valuation allowance has been established, through a charge to earnings, to the extent the amortized cost exceeds the estimated fair value. However, the Company has not recorded other-than-temporary impairment losses on its intangible assets.

Income Taxes

Amounts provided for income tax expense are based on income reported for financial statement purposes and do not necessarily represent amounts currently payable under tax laws. Deferred income taxes are provided for temporary differences between the financial reporting bases and income tax bases of the Company's assets and liabilities, net operating losses, and tax credit carryforwards. Deferred tax assets and liabilities are measured using the enacted tax rates that are expected to apply to taxable income when such assets and liabilities are anticipated to be settled or realized. The effect on deferred tax assets and liabilities of a change in tax rates is recognized as tax expense or benefit in the period that includes the enactment date of the change. In determining the amount of deferred tax assets to recognize in the financial statements, the Company evaluates the likelihood of realizing such benefits in future periods. A valuation allowance is established if it is more likely than not that all or some portion of the deferred tax asset will not be realized. The Company recognizes interest and penalties related to income taxes within income tax expense in the consolidated statements of income.

The Company and its eligible subsidiaries file a consolidated federal income tax return. State and local income tax returns are filed on a combined, consolidated or separate return basis based upon each jurisdiction's laws and regulations.

Additional information about current and deferred income taxes is provided in Note 9, Income Taxes.

Non-Interest Income

Non-interest income is mainly comprised of revenue from contracts with customers. For that revenue (excluding certain revenue associated with financial instruments, derivative and hedging instruments, guarantees, lease contracts, transferring and servicing of financial assets, and other specific revenue transactions), the Company applies the following five-step approach when recognizing revenue: (i) identify the contract with the customer, (ii) identify the performance obligations, (iii) determine the transaction price, (iv) allocate the transaction price to the performance obligations, and (v) recognize revenue when (or as) the performance obligation is satisfied. The Company's contracts with customers are generally short term in nature, with a duration of one year or less, and most contracts are cancellable by either the Company or its customer without penalty. Performance obligations for customer contracts are generally satisfied at a single point in time, typically when the transaction is complete and the customer has received the goods or service, or over time. For performance obligations satisfied over time, the Company recognizes the value of the goods or services transferred to the customer when the performance obligations have been transferred and received by the customer. Payments for satisfied performance obligations are typically due when or as the goods or services are completed, or shortly thereafter, which usually occurs within a single financial reporting period.

In situations where payment is made before the performance obligation is satisfied, the fees are deferred until the performance obligations pertaining to those goods or services are completed. In cases where payment has not been received despite satisfaction of its performance obligations, the Company accrues an estimate of the amount due in the period that the performance obligations have been satisfied. For contracts with variable components, the Company only recognizes revenue to the extent that it is probable that the cumulative amount recognized will not be subject to a significant reversal in future periods. Generally, the Company's contracts do not include terms that require significant judgment to determine whether a variable component is included within the transaction price. The Company generally acts in a principal capacity, on its own behalf, in most of its contracts with customers. For these transactions, revenue and the related costs to provide the goods or services are presented on a gross basis in the financial statements. In some cases, the Company acts in an agent capacity, deriving revenue through assisting third parties in transactions with the Company's customers. In such transactions, revenue and the related costs to provide services is presented on a net basis in the financial statements. These transactions primarily relate to fees earned from bank card and related network and rewards costs and the sales of annuities and certain limited insurance products.

Derivatives

Most of the Company's derivative contracts are accounted for as free-standing instruments. These instruments are carried at fair value, and changes in fair value are recognized in current earnings. They include interest rate swaps and caps, which are offered to customers to assist in managing their risks of adverse changes in interest rates. Each contract between the Company and a customer is offset by a contract between the Company and an institutional counterparty, thus minimizing the Company's exposure to rate changes. The Company also enters into certain contracts, known as credit risk participation agreements, to buy or sell credit protection on specific interest rate swaps. It also purchases and sells forward foreign exchange contracts, either in connection with customer transactions, or for its own trading purposes. Additionally, the Company originates and sells certain personal real estate mortgages. Derivative instruments under this program include mortgage loan commitments, forward loan sale contracts, and forward contracts to sell certain to-be-announced (TBA) securities.

The Company's interest rate risk management policy permits the use of hedge accounting for derivatives. The Company monetized its interest rate floors that had previously been designated and qualified as cash flow hedges. The resulting

unrealized gain is initially recorded in accumulated other comprehensive income and reclassified into interest and fees on loans in the accompanying consolidated income statements as the underlying forecasted transactions impact earnings through the original maturity dates of the monetized interest rate floors.

The Company has master netting arrangements with various counterparties but does not offset derivative assets and liabilities under these arrangements in its consolidated balance sheets. However, interest rate swaps that are executed under central clearing requirements are presented net of variation margin as mandated by the statutory terms of the Company's contract with its clearing counterparty.

Additional information about derivatives held by the Company and valuation methods employed is provided in Note 17, Fair Value Measurements and Note 19, Derivative Instruments.

Pension Plan

The Company's pension plan is described in Note 10, Employee Benefit Plans. In accordance with ASU 2017-07, the Company has reported the service cost component of net periodic pension cost in salaries and employee benefits in the accompanying consolidated statements of income, while the other components are reported in other non-interest expense. The funded status of the plan is recognized as an other asset or other liability in the consolidated balance sheets, and changes in that funded status are recognized in the year in which the changes occur through other comprehensive income. Plan assets and benefit obligations are measured as of the fiscal year end of the plan. The measurement of the projected benefit obligation and pension expense involve actuarial valuation methods and the use of various actuarial and economic assumptions. The Company monitors the assumptions and updates them periodically. Due to the long-term nature of the pension plan obligation, actual results may differ significantly from estimations. Such differences are adjusted over time as the assumptions are replaced by facts and values are recalculated.

Stock-Based Compensation

The Company's stock-based compensation plan is described in Note 11, Stock-Based Compensation and Directors Stock Purchase Plan. In accordance with the requirements of ASC 718-10-30-3 and 35-2, the Company measures the cost of stock-based compensation based on the grant-date fair value of the award, recognizing the cost over the requisite service period, which is generally the vesting period. The fair value of stock appreciation rights is estimated using the Black-Scholes option-pricing model while the fair value of a nonvested stock award is the common stock (CBSH) market price. The expense recognized for stock-based compensation is included in salaries and benefits in the accompanying consolidated statements of income. The Company recognizes forfeitures as a reduction to expense only when they have occurred.

Treasury Stock

Purchases of the Company's common stock are recorded at cost. Upon re-issuance for acquisitions, exercises of stock-based awards or other corporate purposes, treasury stock is reduced based upon the average cost basis of shares held.

Income per Share

Basic income per share is computed using the weighted average number of common shares outstanding during each year. Diluted income per share includes the effect of all dilutive potential common shares (primarily stock appreciation rights) outstanding during each year. The Company applies the two-class method of computing income per share. The two-class method is an earnings allocation formula that determines income per share for common stock and for participating securities, according to dividends declared and participation rights in undistributed earnings. The Company's nonvested stock awards are considered to be a class of participating security. All per share data has been restated to reflect the 5% stock dividend distributed in December 2021.

2. Loans and Allowance for Credit Losses

Major classifications within the Company's held for investment loan portfolio at December 31, 2021 and 2020 are as follows:

<i>(In thousands)</i>	2021	2020
Commercial:		
Business	\$ 5,303,535	\$ 6,546,087
Real estate — construction and land	1,118,266	1,021,595
Real estate — business	3,058,837	3,026,117
Personal Banking:		
Real estate — personal	2,805,401	2,820,030
Consumer	2,032,225	1,950,502
Revolving home equity	275,945	307,083
Consumer credit card	575,410	655,078
Overdrafts	6,740	3,149
Total loans ⁽¹⁾	\$ 15,176,359	\$ 16,329,641

(1) Accrued interest receivable totaled \$25.9 million at December 31, 2021 and was included within other assets on the consolidated balance sheet. For the year ended December 31, 2021, the Company wrote-off accrued interest by reversing interest income of \$212 thousand and \$4.7 million in the Commercial and Personal Banking portfolios, respectively.

Loans to directors and executive officers of the Parent and the Bank, and to their affiliates, are summarized as follows:

<i>(In thousands)</i>		
Balance at January 1, 2021	\$	35,342
Additions		68,365
Amounts collected		(63,287)
Amounts written off		—
Balance, December 31, 2021	\$	40,420

Management believes all loans to directors and executive officers have been made in the ordinary course of business with normal credit terms, including interest rate and collateral considerations, and do not represent more than a normal risk of collection. The activity in the table above includes draws and repayments on several lines of credit with business entities. There were no outstanding loans at December 31, 2021 to principal holders (over 10% ownership) of the Company's common stock.

The Company's lending activity is generally centered in Missouri, Kansas, Illinois and other nearby states including Oklahoma, Colorado, Iowa, Ohio, and Texas. The Company maintains a diversified portfolio with limited industry concentrations of credit risk. Loans and loan commitments are extended under the Company's normal credit standards, controls, and monitoring procedures. Most loan commitments are short or intermediate term in nature. Commercial loan maturities generally range from one to seven years. Collateral is commonly required and would include such assets as marketable securities, cash equivalent assets, accounts receivable, inventory, equipment, other forms of personal property, and real estate. At December 31, 2021, unfunded loan commitments totaled \$13.3 billion (which included \$5.0 billion in unused approved lines of credit related to credit card loan agreements) which could be drawn by customers subject to certain review and terms of agreement. At December 31, 2021, loans totaling \$3.3 billion were pledged at the FHLB as collateral for borrowings and letters of credit obtained to secure public deposits. Additional loans of \$1.3 billion were pledged at the Federal Reserve Bank as collateral for discount window borrowings.

The Company has a net investment in direct financing and sales type leases to commercial and industrial and tax-exempt entities of \$725.6 million and \$797.4 million at December 31, 2021 and 2020, respectively, which is included in business loans on the Company's consolidated balance sheets. This investment includes deferred income of \$55.0 million and \$66.3 million at December 31, 2021 and 2020, respectively. The net investment in operating leases amounted to \$27.0 million and \$13.7 million at December 31, 2021 and 2020, respectively, and is included in other assets on the Company's consolidated balance sheets.

Allowance for credit losses

The allowance for credit losses is measured using an average historical loss model which incorporates relevant information about past events (including historical credit loss experience on loans with similar risk characteristics), current conditions, and reasonable and supportable forecasts that affect the collectability of the remaining cash flows over the contractual term of the loans. The allowance for credit losses is measured on a collective (pool) basis. Loans are aggregated into pools based on similar risk characteristics including borrower type, collateral type and expected credit loss patterns. Loans that do not share similar risk characteristics, primarily large loans on non-accrual status, are evaluated on an individual basis.

For loans evaluated for credit losses on a collective basis, average historical loss rates are calculated for each pool using the Company's historical net charge-offs (combined charge-offs and recoveries by observable historical reporting period) and outstanding loan balances during a lookback period. Lookback periods can be different based on the individual pool and represent management's credit expectations for the pool of loans over the remaining contractual life. In certain loan pools, if the Company's own historical loss rate is not reflective of the loss expectations, the historical loss rate is augmented by industry and peer data. The calculated average net charge-off rate is then adjusted for current conditions and reasonable and supportable forecasts. These adjustments increase or decrease the average historical loss rate to reflect expectations of future losses given a single path economic forecast of key macroeconomic variables including GDP, disposable income, unemployment rate, various interest rates, consumer price index (CPI) inflation rate, housing price index (HPI), commercial real estate price index (CREPI) and market volatility. The adjustments are based on results from various regression models projecting the impact of the macroeconomic variables to loss rates. The forecast is used for a reasonable and supportable period before reverting back to historical averages using a straight-line method. The forecast adjusted loss rate is applied to the amortized cost of loans over the remaining contractual lives, adjusted for expected prepayments. The contractual term excludes expected extensions (except for contractual extensions at the option of the customer), renewals and modifications unless there is a reasonable expectation that a troubled debt restructuring will be executed. Credit cards and certain similar consumer lines of credit do not have stated maturities and therefore, for these loan classes, remaining contractual lives are determined by estimating future cash flows expected to be received from customers until payments have been fully allocated to outstanding balances. Additionally, the allowance for credit losses considers other qualitative factors not included in historical loss rates or macroeconomic forecast such as changes in portfolio composition, underwriting practices, or significant unique events or conditions.

Key assumptions in the Company’s allowance for credit loss model include the economic forecast, the reasonable and supportable period, forecasted macro-economic variables, prepayment assumptions and qualitative factors applied for portfolio composition changes, underwriting practices, or significant unique events or conditions. The assumptions utilized in estimating the Company’s allowance for credit losses at December 31, 2021 and 2020 are discussed below.

Key Assumption	December 31, 2021	December 31, 2020
Overall economic forecast	<ul style="list-style-type: none"> Continued recovery from the Global Coronavirus Recession (GCR) Assumes improving health conditions Assumes gradual easing of supply constraints Continued uncertainty regarding the health crisis Uncertainty regarding rising inflation 	<ul style="list-style-type: none"> The recovery from the Global Coronavirus Recession (GCR) continues to be gradual throughout 2021 and 2022 Assumes no additional systemic lockdown measures Considers government stimulus in the beginning of 2021 Continued uncertainty regarding the health crisis
Reasonable and supportable period and related reversion period	<ul style="list-style-type: none"> One year for both commercial and personal banking loans Reversion to historical average loss rates within two quarters using a straight-line method 	<ul style="list-style-type: none"> Two years for both commercial and personal banking loans Reversion to historical average loss rates within two quarters using a straight-line method
Forecasted macro-economic variables	<ul style="list-style-type: none"> Unemployment rate ranging from 4.1% to 3.7% during the supportable forecast period Real GDP growth ranges from 5.0% to 3.4% Prime rate of 3.25% through the second quarter of 2022, increasing to 3.5% by the end of 2022 	<ul style="list-style-type: none"> Unemployment rate ranging from 6.5% to 5.2% during the supportable forecast period Real GDP growth ranges from 3.7% to 2.2% Prime rate of 3.25%
Prepayment assumptions	Commercial loans <ul style="list-style-type: none"> 5% for most loan pools Personal banking loans <ul style="list-style-type: none"> Ranging from 28.0% to 16.5% for most loan pools 64.1% for consumer credit cards 	Commercial loans <ul style="list-style-type: none"> 5% for most loan pools Personal banking loans <ul style="list-style-type: none"> Ranging from 23.3% to 23.1% for most loan pools 58.0% for consumer credit cards
Qualitative factors	Added net reserves using qualitative processes related to: <ul style="list-style-type: none"> Loans originated in our expansion markets, loans that are designated as shared national credits, and certain portfolios sensitive to pandemic economic uncertainties Changes in the composition of the loan portfolios Loans downgraded to special mention, substandard, or non-accrual status 	Added net reserves using qualitative processes related to: <ul style="list-style-type: none"> Loans originated in our expansion markets, loans that are designated as shared national credits, and certain portfolios considered to be COVID-19 impacted Changes in the composition of the loan portfolios Loans downgraded to special mention, substandard, or non-accrual status

The liability for unfunded lending commitments utilizes the same model as the allowance for credit losses on loans, however, the liability for unfunded lending commitments incorporates an assumption for the portion of unfunded commitments that are expected to be funded.

Sensitivity in the Allowance for Credit Loss model

The allowance for credit losses is an estimate that requires significant judgment including projections of the macro-economic environment. The forecasted macro-economic environment continuously changes which can cause fluctuations in estimated expected credit losses.

The current forecast used in the model projects a continued recovery of the COVID pandemic-induced recession. This pandemic is unprecedented and information that could be used in the estimation of the allowance for credit losses changes frequently. Trends in health conditions, vaccine distribution, and supply constraints could significantly impact economic projections used in the estimation of the allowance for credit losses and liability for unfunded lending commitments.

A summary of the activity in the allowance for credit losses on loans and the liability for unfunded lending commitments during the years ended December 31, 2021 and 2020 follows:

<i>(In thousands)</i>	For the Year Ended December 31		
	Commercial	Personal Banking	Total
ALLOWANCE FOR CREDIT LOSSES ON LOANS			
Balance December 31, 2020	\$ 121,549	\$ 99,285	\$ 220,834
Provision for credit losses on loans	(28,594)	(23,629)	(52,223)
Deductions:			
Loans charged off	968	34,659	35,627
Less recoveries on loans	5,789	11,271	17,060
Net loan charge-offs (recoveries)	(4,821)	23,388	18,567
Balance December 31, 2021	\$ 97,776	\$ 52,268	\$ 150,044
LIABILITY FOR UNFUNDED LENDING COMMITMENTS			
Balance December 31, 2020	\$ 37,259	\$ 1,048	\$ 38,307
Provision for credit losses on unfunded lending commitments	(13,988)	(115)	(14,103)
Balance December 31, 2021	\$ 23,271	\$ 933	\$ 24,204
ALLOWANCE FOR CREDIT LOSSES ON LOANS AND LIABILITY FOR UNFUNDED LENDING COMMITMENTS	\$ 121,047	\$ 53,201	\$ 174,248
ALLOWANCE FOR CREDIT LOSSES ON LOANS			
Balance December 31, 2019	\$ 91,760	\$ 68,922	\$ 160,682
Adoption of ASU 2016-13	(29,711)	8,672	(21,039)
Balance at December 31, 2019, adjusted	62,049	77,594	139,643
Provision for credit losses on loans	63,115	52,934	116,049
Deductions:			
Loans charged off	7,862	42,185	50,047
Less recoveries on loans	4,247	10,942	15,189
Net loan charge-offs	3,615	31,243	34,858
Balance December 31, 2020	\$ 121,549	\$ 99,285	\$ 220,834
LIABILITY FOR UNFUNDED LENDING COMMITMENTS			
Balance December 31, 2019	\$ 399	\$ 676	\$ 1,075
Adoption of ASU 2016-13	16,057	33	16,090
Balance at December 31, 2019, adjusted	16,456	709	17,165
Provision for credit losses on unfunded lending commitments	20,803	339	21,142
Balance December 31, 2020	\$ 37,259	\$ 1,048	\$ 38,307
ALLOWANCE FOR CREDIT LOSSES ON LOANS AND UNFUNDED LENDING COMMITMENTS	\$ 158,808	\$ 100,333	\$ 259,141

Allowance for loan losses

In the table below is a summary of the activity in the allowance for loan losses during 2019, calculated in accordance with the incurred loss methodology applicable to the Company prior to its adoption of CECL on January 1, 2020. The allowance for loan losses under the incurred loss method estimated probable loan losses inherent in the portfolio as of the balance sheet date, and using this methodology, groups of similar loans were evaluated collectively for impairment and certain specific loans were evaluated for impairment individually. The Company's estimate of the allowance under the incurred loss method was based on various judgments and assumptions made by management and was influenced by several qualitative factors which included historical loan loss experience by loan type, loss emergence periods, trends in delinquencies, collateral valuation, current regional and national economic factors, current loan portfolio composition and characteristics, portfolio risk ratings, and levels of non-performing assets.

<i>(In thousands)</i>	Commercial	Personal Banking	Total
Balance at December 31, 2018	\$ 92,869	\$ 67,063	\$ 159,932
Provision for loan losses	2,816	47,622	50,438
Deductions:			
Loans charged off	4,711	57,169	61,880
Less recoveries	786	11,406	12,192
Net loans charged off	3,925	45,763	49,688
Balance at December 31, 2019	91,760	68,922	160,682

Delinquent and non-accrual loans

The Company considers loans past due on the day following the contractual repayment date, if the contractual repayment was not received by the Company as of the end of the business day. The following table provides aging information on the Company's past due and accruing loans, in addition to the balances of loans on non-accrual status, at December 31, 2021 and 2020.

<i>(In thousands)</i>	Current or Less Than 30 Days Past Due	30 – 89 Days Past Due	90 Days Past Due and Still Accruing	Non-accrual	Total
December 31, 2021					
Commercial:					
Business	\$ 5,292,125	\$ 3,621	\$ 477	\$ 7,312	\$ 5,303,535
Real estate – construction and land	1,117,434	832	—	—	1,118,266
Real estate – business	3,058,566	57	—	214	3,058,837
Personal Banking:					
Real estate – personal	2,796,662	4,125	2,983	1,631	2,805,401
Consumer	2,005,556	24,458	2,211	—	2,032,225
Revolving home equity	274,372	772	801	—	275,945
Consumer credit card	565,335	4,821	5,254	—	575,410
Overdrafts	6,425	315	—	—	6,740
Total	\$ 15,116,475	\$ 39,001	\$ 11,726	\$ 9,157	\$ 15,176,359
December 31, 2020					
Commercial:					
Business	\$ 6,517,838	\$ 2,252	\$ 3,473	\$ 22,524	\$ 6,546,087
Real estate – construction and land	1,021,592	—	3	—	1,021,595
Real estate – business	3,016,215	7,666	6	2,230	3,026,117
Personal Banking:					
Real estate – personal	2,808,886	6,521	2,837	1,786	2,820,030
Consumer	1,921,822	25,417	3,263	—	1,950,502
Revolving home equity	305,037	1,656	390	—	307,083
Consumer credit card	635,770	7,090	12,218	—	655,078
Overdrafts	2,896	253	—	—	3,149
Total	\$ 16,230,056	\$ 50,855	\$ 22,190	\$ 26,540	\$ 16,329,641

At December 31, 2021, the Company had \$5.3 million of non-accrual business loans that had no allowance for credit loss. The Company did not record any interest income on non-accrual loans during the year ended December 31, 2021.

Credit quality indicators

The following table provides information about the credit quality of the Commercial loan portfolio. The Company utilizes an internal risk rating system comprised of a series of grades to categorize loans according to perceived risk associated with the expectation of debt repayment based on borrower specific information, including but not limited to, current financial information, historical payment experience, industry information, collateral levels and collateral types. The “pass” category consists of a range of loan grades that reflect increasing, though still acceptable, risk. A loan is assigned the risk rating at origination and then monitored throughout the contractual term for possible risk rating changes. Movement of risk through the various grade levels in the “pass” category is monitored for early identification of credit deterioration. The “special mention” rating is applied to loans where the borrower exhibits negative financial trends due to borrower specific or systemic conditions that, if left uncorrected, threaten its capacity to meet its debt obligations. The borrower is believed to have sufficient financial flexibility to react to and resolve its negative financial situation. It is a transitional grade that is closely monitored for improvement or deterioration. The “substandard” rating is applied to loans where the borrower exhibits well-defined weaknesses that jeopardize its continued performance and are of a severity that the distinct possibility of default exists. Loans are placed on “non-accrual” when management does not expect to collect payments consistent with acceptable and agreed upon terms of repayment.

All loans are analyzed for risk rating updates annually. For larger loans, rating assessments may be more frequent if relevant information is obtained earlier through debt covenant monitoring or overall relationship management. Smaller loans are monitored as identified by the loan officer based on the risk profile of the individual borrower or if the loan becomes past due related to credit issues. Loans rated Special Mention, Substandard or Non-accrual are subject to quarterly review and monitoring processes. In addition to the regular monitoring performed by the lending personnel and credit committees, loans are subject to review by a credit review department which verifies the appropriateness of the risk ratings for the loans chosen as part of its risk-based review plan.

The risk category of loans in the Commercial portfolio as of December 31, 2021 and 2020 are as follows:

<i>(In thousands)</i>	Term Loans Amortized Cost Basis by Origination Year						Revolving Loans Amortized Cost Basis	Total
	2021	2020	2019	2018	2017	Prior		
December 31, 2021								
Business								
Risk Rating:								
Pass	\$ 1,473,869	\$ 704,157	\$ 554,759	\$ 248,739	\$ 159,238	\$ 270,454	\$ 1,795,073	\$ 5,206,289
Special mention	1,785	126	17,576	12,050	1,490	3,232	16,545	52,804
Substandard	836	1,191	8,855	4,936	1	10,775	10,536	37,130
Non-accrual	430	—	1	1,549	—	5,332	—	7,312
Total Business:	\$ 1,476,920	\$ 705,474	\$ 581,191	\$ 267,274	\$ 160,729	\$ 289,793	\$ 1,822,154	\$ 5,303,535
Real estate-construction								
Risk Rating:								
Pass	\$ 598,734	\$ 346,507	\$ 66,985	\$ 2,110	\$ 2,655	\$ 2,252	\$ 13,230	\$ 1,032,473
Special mention	44,649	—	—	985	—	—	—	45,634
Substandard	485	11,620	—	14,896	13,158	—	—	40,159
Total Real estate-construction:	\$ 643,868	\$ 358,127	\$ 66,985	\$ 17,991	\$ 15,813	\$ 2,252	\$ 13,230	\$ 1,118,266
Real estate- business								
Risk Rating:								
Pass	\$ 775,561	\$ 712,173	\$ 551,697	\$ 230,138	\$ 170,888	\$ 254,489	\$ 76,641	\$ 2,771,587
Special mention	4,011	30,322	10,500	37,576	2,068	2,103	1	86,581
Substandard	17,079	62,939	12,930	2,326	58,934	45,265	982	200,455
Non-accrual	—	—	—	189	—	25	—	214
Total Real-estate business:	\$ 796,651	\$ 805,434	\$ 575,127	\$ 270,229	\$ 231,890	\$ 301,882	\$ 77,624	\$ 3,058,837
Commercial loans								
Risk Rating:								
Pass	\$ 2,848,164	\$ 1,762,837	\$ 1,173,441	\$ 480,987	\$ 332,781	\$ 527,195	\$ 1,884,944	\$ 9,010,349
Special mention	50,445	30,448	28,076	50,611	3,558	5,335	16,546	185,019
Substandard	18,400	75,750	21,785	22,158	72,093	56,040	11,518	277,744
Non-accrual	430	—	1	1,738	—	5,357	—	7,526
Total Commercial loans:	\$ 2,917,439	\$ 1,869,035	\$ 1,223,303	\$ 555,494	\$ 408,432	\$ 593,927	\$ 1,913,008	\$ 9,480,638

	Term Loans Amortized Cost Basis by Origination Year						Revolving Loans Amortized Cost Basis	Total
<i>(In thousands)</i>	2020	2019	2018	2017	2016	Prior		
December 31, 2020								
Business								
Risk Rating:								
Pass	\$ 2,472,419	\$ 966,068	\$ 438,557	\$ 329,207	\$ 163,357	\$ 281,604	\$ 1,619,680	\$ 6,270,892
Special mention	28,612	26,746	14,102	1,781	5,091	1,664	41,749	119,745
Substandard	17,246	21,985	5,076	2,675	3,578	13,390	68,976	132,926
Non-accrual	12,619	1	5,327	391	502	3,659	25	22,524
Total Business:	\$ 2,530,896	\$ 1,014,800	\$ 463,062	\$ 334,054	\$ 172,528	\$ 300,317	\$ 1,730,430	\$ 6,546,087
Real estate-construction								
Risk Rating:								
Pass	\$ 483,302	\$ 330,480	\$ 56,747	\$ 3,021	\$ 24,426	\$ 1,692	\$ 27,356	\$ 927,024
Special mention	29,692	—	1,022	34,532	—	—	—	65,246
Substandard	1,154	—	14,989	13,182	—	—	—	29,325
Total Real estate-construction:	\$ 514,148	\$ 330,480	\$ 72,758	\$ 50,735	\$ 24,426	\$ 1,692	\$ 27,356	\$ 1,021,595
Real estate- business								
Risk Rating:								
Pass	\$ 890,740	\$ 666,399	\$ 336,850	\$ 241,656	\$ 313,691	\$ 199,534	\$ 67,796	\$ 2,716,666
Special mention	8,936	21,734	49,580	6,597	17,504	1,309	3,002	108,662
Substandard	46,882	1,037	4,061	81,435	17,538	45,014	2,592	198,559
Non-accrual	478	188	1,480	—	—	84	—	2,230
Total Real-estate business:	\$ 947,036	\$ 689,358	\$ 391,971	\$ 329,688	\$ 348,733	\$ 245,941	\$ 73,390	\$ 3,026,117
Commercial loans								
Risk Rating:								
Pass	\$ 3,846,461	\$ 1,962,947	\$ 832,154	\$ 573,884	\$ 501,474	\$ 482,830	\$ 1,714,832	\$ 9,914,582
Special mention	67,240	48,480	64,704	42,910	22,595	2,973	44,751	293,653
Substandard	65,282	23,022	24,126	97,292	21,116	58,404	71,568	360,810
Non-accrual	13,097	189	6,807	391	502	3,743	25	24,754
Total Commercial loans:	\$ 3,992,080	\$ 2,034,638	\$ 927,791	\$ 714,477	\$ 545,687	\$ 547,950	\$ 1,831,176	\$ 10,593,799

The credit quality of Personal Banking loans is monitored primarily on the basis of aging/delinquency, and this information is provided as of December 31, 2021 and 2020 below:

<i>(In thousands)</i>	Term Loans Amortized Cost Basis by Origination Year						Revolving Loans Amortized Cost Basis	Total
	2021	2020	2019	2018	2017	Prior		
December 31, 2021								
Real estate-personal								
Current to 90 days past due	\$ 690,058	\$ 888,631	\$ 354,292	\$ 157,485	\$ 149,391	\$ 551,460	\$ 9,470	\$ 2,800,787
Over 90 days past due	133	1,150	298	124	97	1,181	—	2,983
Non-accrual	115	—	251	109	—	1,156	—	1,631
Total Real estate-personal:	<u>\$ 690,306</u>	<u>\$ 889,781</u>	<u>\$ 354,841</u>	<u>\$ 157,718</u>	<u>\$ 149,488</u>	<u>\$ 553,797</u>	<u>\$ 9,470</u>	<u>\$ 2,805,401</u>
Consumer								
Current to 90 days past due	\$ 571,455	\$ 348,774	\$ 192,076	\$ 79,887	\$ 47,401	\$ 78,088	\$ 712,333	\$ 2,030,014
Over 90 days past due	283	335	257	250	74	351	661	2,211
Total Consumer:	<u>\$ 571,738</u>	<u>\$ 349,109</u>	<u>\$ 192,333</u>	<u>\$ 80,137</u>	<u>\$ 47,475</u>	<u>\$ 78,439</u>	<u>\$ 712,994</u>	<u>\$ 2,032,225</u>
Revolving home equity								
Current to 90 days past due	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 275,144	\$ 275,144
Over 90 days past due	—	—	—	—	—	—	801	801
Total Revolving home equity:	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 275,945</u>	<u>\$ 275,945</u>
Consumer credit card								
Current to 90 days past due	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 570,156	\$ 570,156
Over 90 days past due	—	—	—	—	—	—	5,254	5,254
Total Consumer credit card:	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 575,410</u>	<u>\$ 575,410</u>
Overdrafts								
Current to 90 days past due	\$ 6,740	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 6,740
Total Overdrafts:	<u>\$ 6,740</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 6,740</u>
Personal banking loans								
Current to 90 days past due	\$1,268,253	\$1,237,405	\$ 546,368	\$ 237,372	\$ 196,792	\$ 629,548	\$ 1,567,103	\$ 5,682,841
Over 90 days past due	416	1,485	555	374	171	1,532	6,716	11,249
Non-accrual	115	—	251	109	—	1,156	—	1,631
Total Personal banking loans:	<u>\$1,268,784</u>	<u>\$1,238,890</u>	<u>\$ 547,174</u>	<u>\$ 237,855</u>	<u>\$ 196,963</u>	<u>\$ 632,236</u>	<u>\$ 1,573,819</u>	<u>\$ 5,695,721</u>

	Term Loans Amortized Cost Basis by Origination Year							Revolving Loans Amortized Cost Basis	Total
<i>(In thousands)</i>	2020	2019	2018	2017	2016	Prior			
December 31, 2020									
Real estate-personal									
Current to 90 days past due	\$ 1,123,918	\$ 488,379	\$ 218,390	\$ 201,971	\$ 227,265	\$ 544,008	\$ 11,476	\$ 2,815,407	
Over 90 days past due	534	375	281	411	388	848	—	2,837	
Non-accrual	29	191	116	45	65	1,340	—	1,786	
Total Real estate-personal:	<u>\$ 1,124,481</u>	<u>\$ 488,945</u>	<u>\$ 218,787</u>	<u>\$ 202,427</u>	<u>\$ 227,718</u>	<u>\$ 546,196</u>	<u>\$ 11,476</u>	<u>\$ 2,820,030</u>	
Consumer									
Current to 90 days past due	\$ 536,799	\$ 337,431	\$ 161,337	\$ 115,886	\$ 75,769	\$ 86,831	\$ 633,186	\$ 1,947,239	
Over 90 days past due	212	358	328	220	174	397	1,574	3,263	
Total Consumer:	<u>\$ 537,011</u>	<u>\$ 337,789</u>	<u>\$ 161,665</u>	<u>\$ 116,106</u>	<u>\$ 75,943</u>	<u>\$ 87,228</u>	<u>\$ 634,760</u>	<u>\$ 1,950,502</u>	
Revolving home equity									
Current to 90 days past due	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 306,693	\$ 306,693	
Over 90 days past due	—	—	—	—	—	—	390	390	
Total Revolving home equity:	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 307,083</u>	<u>\$ 307,083</u>	
Consumer credit card									
Current to 90 days past due	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 642,860	\$ 642,860	
Over 90 days past due	—	—	—	—	—	—	12,218	12,218	
Total Consumer credit card:	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 655,078</u>	<u>\$ 655,078</u>	
Overdrafts									
Current to 90 days past due	\$ 3,149	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 3,149	
Total Overdrafts:	<u>\$ 3,149</u>	<u>\$ —</u>	<u>\$ 3,149</u>						
Personal banking loans									
Current to 90 days past due	\$ 1,663,866	\$ 825,810	\$ 379,727	\$ 317,857	\$ 303,034	\$ 630,839	\$ 1,594,215	\$ 5,715,348	
Over 90 days past due	746	733	609	631	562	1,245	14,182	18,708	
Non-accrual	29	191	116	45	65	1,340	—	1,786	
Total Personal banking loans:	<u>\$ 1,664,641</u>	<u>\$ 826,734</u>	<u>\$ 380,452</u>	<u>\$ 318,533</u>	<u>\$ 303,661</u>	<u>\$ 633,424</u>	<u>\$ 1,608,397</u>	<u>\$ 5,735,842</u>	

Collateral-dependent loans

The Company's collateral-dependent loans are comprised of large loans on non-accrual status. The Company requires that collateral-dependent loans are either over-collateralized or carry collateral equal to the amortized cost of the loan. The following table presents the amortized cost basis of collateral-dependent loans as of December 31, 2021.

<i>(In thousands)</i>	Business Assets	Oil & Gas Assets	Total
Commercial:			
Business	\$ 1,604	\$ 2,459	\$ 4,063
Total	\$ 1,604	\$ 2,459	\$ 4,063

Other Personal Banking loan information

As noted above, the credit quality of Personal Banking loans is monitored primarily on the basis of aging/delinquency, and this information is provided in the table in the above section on "Credit quality indicators." In addition, FICO scores are obtained and updated on a quarterly basis for most of the loans in the Personal Banking portfolio. This is a published credit score designed to measure the risk of default by taking into account various factors from a borrower's financial history and is considered supplementary information utilized by the Company, as management does not consider this information in evaluating the allowance for credit losses on loans. The Bank normally obtains a FICO score at the loan's origination and renewal dates, and updates are obtained on a quarterly basis. Excluded from the table below are certain personal real estate loans for which FICO scores are not obtained because the loans generally pertain to commercial customer activities and are often underwritten with other collateral considerations. These loans totaled \$185.6 million at December 31, 2021 and \$191.1 million at December 31, 2020. The table also excludes consumer loans related to the Company's patient healthcare loan program, which totaled \$186.6 million at December 31, 2021 and \$188.1 million at December 31, 2020. As the healthcare loans are guaranteed by the hospital, customer FICO scores are not obtained for these loans. The personal real estate loans and consumer loans excluded below totaled less than 7% of the Personal Banking portfolio. For the remainder of loans in the

Personal Banking portfolio, the table below shows the percentage of balances outstanding at December 31, 2021 and 2020 by FICO score.

	Personal Banking Loans			
	% of Loan Category			
	Real Estate - Personal	Consumer	Revolving Home Equity	Consumer Credit Card
December 31, 2021				
FICO score:				
Under 600	1.0 %	1.9 %	0.9 %	3.4 %
600 – 659	2.4	3.9	2.6	11.3
660 – 719	7.4	13.8	9.4	29.9
720 – 779	25.2	25.3	20.4	28.2
780 and over	64.0	55.1	66.7	27.2
Total	100.0 %	100.0 %	100.0 %	100.0 %
December 31, 2020				
FICO score:				
Under 600	0.8 %	2.3 %	1.3 %	5.0 %
600 – 659	1.9	4.2	2.4	12.3
660 – 719	8.8	14.1	8.6	31.2
720 – 779	24.5	23.9	22.2	28.0
780 and over	64.0	55.5	65.5	23.5
Total	100.0 %	100.0 %	100.0 %	100.0 %

Troubled debt restructurings

Restructured loans are those extended to borrowers who are experiencing financial difficulty and who have been granted a concession. Restructured loans are placed on non-accrual status if the Company does not believe it probable that amounts due under the contractual terms will be collected. Commercial performing restructured loans are primarily comprised of certain business, construction and business real estate loans classified as substandard, but renewed at rates judged to be non-market. These loans are performing in accordance with their modified terms, and because the Company believes it probable that all amounts due under the modified terms of the agreements will be collected, interest on these loans is being recognized on an accrual basis. Troubled debt restructurings also include certain credit card and other small consumer loans under various debt management and assistance programs. Modifications to these loans generally involve removing the available line of credit, placing loans on amortizing status, and lowering the contractual interest rate. Certain personal real estate, revolving home equity, and consumer loans were classified as consumer bankruptcy troubled debt restructurings because they were not reaffirmed by the borrower in bankruptcy proceedings. Interest on these loans is being recognized on an accrual basis, as the borrowers are continuing to make payments. Other consumer loans classified as troubled debt restructurings consist of various other workout arrangements with consumer customers.

Section 4013 of the CARES Act was signed into law on March 27, 2020, and includes a provision that short-term modifications are not troubled debt restructurings, if made on a good-faith basis in response to COVID-19 to borrowers who were current prior to December 31, 2019. The Company elected such option under the CARES Act when determining if a customer's modification is subject to troubled debt restructuring classification. If it is deemed the modification is not short-term, not COVID-19 related or the customer does not meet the criteria under the guidance to be scoped out of troubled debt restructuring classification, the Company will evaluate the loan modifications under its existing framework and account for the modification as a troubled debt restructuring.

The initial guidance issued under the CARES Act was due to expire on December 31, 2020. During January 2021, the Consolidated Appropriations Act, 2021 was enacted and extended relief offered under the CARES Act related to the accounting and disclosure requirements for troubled debt restructurings as a result of COVID-19. The Company elected to extend its application of this guidance through December 31, 2021.

The table below shows the balances of troubled debt restructurings by accrual status at December 31, 2021 and 2020.

<i>(In thousands)</i>	December 31	
	2021	2020
Accruing loans:		
Commercial	\$ 46,867	\$ 117,740
Assistance programs	6,146	7,804
Other consumer	4,787	5,194
Non-accrual loans	7,087	9,889
Total troubled debt restructurings	\$ 64,887	\$ 140,627

The table below shows the balance of troubled debt restructurings by loan classification at December 31, 2021, in addition to the outstanding balances of these restructured loans which the Company considers to have been in default at any time during the past twelve months. For purposes of this disclosure, the Company considers "default" to mean 90 days or more past due as to interest or principal.

<i>(In thousands)</i>	December 31, 2021	Balance 90 days past due at any time during previous 12 months
Commercial:		
Business	\$ 14,753	\$ —
Real estate – construction and land	10,296	—
Real estate – business	27,626	—
Personal Banking:		
Real estate – personal	3,419	682
Consumer	2,731	171
Revolving home equity	22	—
Consumer credit card	6,040	605
Total troubled debt restructurings	\$ 64,887	\$ 1,458

For those loans on non-accrual status also classified as restructured, the modification did not create any further financial effect on the Company as those loans were already recorded at net realizable value. For those performing commercial loans classified as restructured, there were no concessions involving forgiveness of principal or interest and, therefore, there was no financial impact to the Company as a result of modification to these loans. However, the effects of modifications to loans under various debt management and assistance programs were estimated to decrease interest income by approximately \$784 thousand on an annual, pre-tax basis, compared to amounts contractually owed. Performing consumer loans where the debt was not reaffirmed in bankruptcy did not result in a concession, as no changes to loan terms occurred in that process. Other modifications to consumer loans mainly involve extensions and other small modifications that did not include the forgiveness of principal or interest.

The allowance for credit losses related to troubled debt restructurings on non-accrual status is determined by individual evaluation, including collateral adequacy, using the same process as loans on non-accrual status which are not classified as troubled debt restructurings. Those performing loans classified as troubled debt restructurings are accruing loans which management expects to collect under contractual terms. Performing commercial loans having no other concessions granted other than being renewed at non-market interest rates are judged to have similar risk characteristics as non-troubled debt commercial loans and are collectively evaluated based on internal risk rating, loan type, delinquency, historical experience and current economic factors. Performing personal banking loans classified as troubled debt restructurings resulted from the borrower not reaffirming the debt during bankruptcy and have had no other concession granted, other than the Bank's future limitations on collecting payment deficiencies or in pursuing foreclosure actions. As such, they have similar risk characteristics as non-troubled debt personal banking loans and are evaluated collectively based on loan type, delinquency, historical experience and current economic factors.

If a troubled debt restructuring defaults and is already on non-accrual status, the allowance for credit losses continues to be based on individual evaluation, using discounted expected cash flows or the fair value of collateral. If an accruing, troubled debt restructuring defaults, the loan's risk rating is downgraded to non-accrual status and the loan's related allowance for credit losses is determined based on individual evaluation, or if necessary, the loan is charged off and collection efforts begin.

The Company had no commitments at December 31, 2021 to lend additional funds to borrowers with restructured loans, compared to commitments of \$10.7 million at December 31, 2020.

Loans held for sale

The Company designates certain long-term fixed rate personal real estate loans as held for sale, and the Company has elected the fair value option for these loans. The election of the fair value option aligns the accounting for these loans with the related economic hedges discussed in Note 19. The loans are primarily sold to FNMA and FHLMC. At December 31, 2021, the fair value of these loans was \$5.6 million, and the unpaid principal balance was \$5.4 million.

The Company also designates certain student loan originations as held for sale. The borrowers are credit-worthy students who are attending colleges and universities. The loans are intended to be sold in the secondary market, and the Company maintains contracts with Sallie Mae to sell the loans within 210 days after the last disbursement to the student. These loans are carried at lower of cost or fair value, which at December 31, 2021 totaled \$3.0 million.

At December 31, 2021, none of the loans held for sale were on non-accrual status or 90 days past due and still accruing.

Foreclosed real estate/repossessed assets

The Company's holdings of foreclosed real estate totaled \$115 thousand and \$93 thousand at December 31, 2021 and 2020, respectively. Personal property acquired in repossession, generally autos, marine and recreational vehicles (RV), totaled \$1.1 million and \$1.4 million at December 31, 2021 and 2020, respectively. Upon acquisition, these assets are recorded at fair value less estimated selling costs at the date of foreclosure, establishing a new cost basis. They are subsequently carried at the lower of this cost basis or fair value less estimated selling costs.

3. Investment Securities

Investment securities consisted of the following at December 31, 2021 and 2020:

<i>(In thousands)</i>	2021	2020
Available for sale debt securities	\$ 14,450,027	\$ 12,449,264
Trading debt securities	46,235	35,321
Equity securities:		
Readily determinable fair value	7,153	2,966
No readily determinable fair value	2,049	1,397
Other:		
Federal Reserve Bank stock	34,379	34,070
Federal Home Loan Bank stock	10,428	10,307
Equity method investments	1,834	18,000
Private equity investments	147,406	94,368
Total investment securities ⁽¹⁾	\$ 14,699,511	\$ 12,645,693

(1) Accrued interest receivable totaled \$39.5 million and \$41.5 million at December 31, 2021 and December 31, 2020, respectively, and was included within other assets on the consolidated balance sheet.

The Company has elected to measure equity securities with no readily determinable fair value 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. This portfolio includes the Company's holdings of Visa Class B shares, which have a carrying value of zero, as there have not been observable price changes in orderly transactions for identical or similar investments of the same issuer. During the year-ended December 31, 2021, the Company did not record any impairment or other adjustments to the carrying amount of its portfolio of equity securities with no readily determinable fair value.

Other investment securities include Federal Reserve Bank (FRB) stock, Federal Home Loan Bank (FHLB) stock, equity method investments, and investments in portfolio concerns held by the Company's private equity subsidiary. FRB stock and FHLB stock are held for debt and regulatory purposes. Investment in FRB stock is based on the capital structure of the investing bank, and investment in FHLB stock is tied to the level of borrowings from the FHLB. These holdings are carried at

cost. Additionally, the Company's equity method investments are carried at cost, adjusted to reflect the Company's portion of income, loss, or dividends of the investee. These adjustments are included in non-interest income on the Company's consolidated statements of income. The private equity investments are carried at estimated fair value.

The majority of the Company's investment portfolio is comprised of available for sale debt securities, which are carried at fair value with changes in fair value reported in other comprehensive income (OCI). A summary of the available for sale debt securities by maturity groupings as of December 31, 2021 is shown in the following table. The weighted average yield for each range of maturities was calculated using the yield on each security within that range weighted by the amortized cost of each security at December 31, 2021. Yields on tax exempt securities have not been adjusted for tax exempt status. The investment portfolio includes agency mortgage-backed securities, which are guaranteed by agencies such as FHLMC, FNMA, and GNMA, in addition to non-agency mortgage-backed securities, which have no guarantee but are collateralized by commercial and residential mortgages. Also included are certain other asset-backed securities, which are primarily collateralized by credit cards, automobiles, student loans, and commercial loans. These securities differ from traditional debt securities primarily in that they may have uncertain maturity dates and are priced based on estimated prepayment rates on the underlying collateral.

<i>(Dollars in thousands)</i>	Amortized Cost	Fair Value	Weighted Average Yield
U.S. government and federal agency obligations:			
Within 1 year	\$ 137,340	\$ 139,354	2.24 *%
After 1 but within 5 years	698,147	715,106	1.35 *
After 5 but within 10 years	199,990	226,260	.70 *
Total U.S. government and federal agency obligations	1,035,477	1,080,720	1.34 *
Government-sponsored enterprise obligations:			
After 10 years	50,773	51,755	2.32
Total government-sponsored enterprise obligations	50,773	51,755	2.32
State and municipal obligations:			
Within 1 year	164,524	166,146	2.34
After 1 but within 5 years	763,794	786,416	2.11
After 5 but within 10 years	773,513	780,313	1.79
After 10 years	370,379	363,952	1.88
Total state and municipal obligations	2,072,210	2,096,827	1.97
Mortgage and asset-backed securities:			
Agency mortgage-backed securities	5,698,088	5,683,000	1.94
Non-agency mortgage-backed securities	1,383,037	1,366,477	1.84
Asset-backed securities	3,546,024	3,539,219	1.05
Total mortgage and asset-backed securities	10,627,149	10,588,696	1.63
Other debt securities:			
Within 1 year	126,406	127,604	2.68
After 1 but within 5 years	191,083	193,429	1.87
After 5 but within 10 years	306,775	301,854	1.74
After 10 years	9,260	9,142	1.89
Total other debt securities	633,524	632,029	1.97 %
Total available for sale debt securities	\$ 14,419,133	\$ 14,450,027	

* Rate does not reflect inflation adjustment on inflation-protected securities

Investments in U.S. government and federal agency obligations include U.S. Treasury inflation-protected securities, which totaled \$390.9 million, at fair value, at December 31, 2021. Interest paid on these securities increases with inflation and decreases with deflation, as measured by the Consumer Price Index. At maturity, the principal paid is the greater of an inflation-adjusted principal or the original principal.

Allowance for credit losses on available for sale debt securities

As described in Note 1, the Company adopted ASU 2016-13, Measurement of Credit Losses on Financial Instruments, on January 1, 2020. The adoption of ASU 2016-13 had no impact to the Company's available for sale securities reported in its consolidated financial statements at January 1, 2020. For the year ended December 31, 2021, the Company did not recognize a credit loss expense on any available for sale debt securities.

The Company's model for establishing its allowance for credit losses uses cash flows projected to be received over the estimated life of the securities, discounted to present value, and compared to the current amortized cost bases of the securities. Securities for which fair value is less than amortized cost are reviewed for impairment. Special emphasis is placed on securities whose credit rating has fallen below Baa3 (Moody's) or BBB- (Standard & Poor's), whose fair values have fallen more than 20% below purchase price, or who have been identified based on management's judgment. These securities are placed on a watch list and cash flow analyses are prepared on an individual security basis. Credit impairment is determined using input factors such as cash flow projections, contractual payments required, expected delinquency rates, credit support from other tranches, prepayment speeds, collateral loss severity rates (including loan to values), and various other information related to the underlying collateral. At December 31, 2021, the fair value of securities on this watch list was \$13.4 million compared to \$31.0 million at December 31, 2020.

Significant inputs to the cash flow model used at December 31, 2021 to quantify credit losses were primarily credit support agreements, as the securities on the Company's watch list at December 31, 2021 were securities backed by government-guaranteed student loans and are expected to perform as contractually required. As of December 31, 2021, the Company did not identify any securities for which a credit loss exists.

The table below summarizes debt securities available for sale in an unrealized loss position, aggregated by length of loss period, for which an allowance for credit losses has not been recorded at December 31, 2021 and 2020. Unrealized losses on these available for sale securities have not been recognized into income because after review, the securities were deemed not to be impaired. The unrealized losses on these securities are primarily attributable to changes in interest rates and current market conditions. Additionally, management does not intend to sell the securities, and it is more likely than not that management will not be required to sell the securities prior to their anticipated recovery.

	Less than 12 months		12 months or longer		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
<i>(In thousands)</i>						
December 31, 2021						
U.S. government and federal agency obligations	\$ 296,492	\$ 2,241	\$ —	\$ —	\$ 296,492	\$ 2,241
Government-sponsored enterprise obligations	—	—	18,899	919	18,899	919
State and municipal obligations	876,691	15,874	32,684	1,049	909,375	16,923
Mortgage and asset-backed securities:						
Agency mortgage-backed securities	3,333,691	59,044	265,835	8,720	3,599,526	67,764
Non-agency mortgage-backed securities	1,285,611	17,222	1,948	19	1,287,559	17,241
Asset-backed securities	2,518,935	19,201	87,893	525	2,606,828	19,726
Total mortgage and asset-backed securities	7,138,237	95,467	355,676	9,264	7,493,913	104,731
Other debt securities	270,409	5,098	58,574	3,017	328,983	8,115
Total	\$ 8,581,829	\$ 118,680	\$ 465,833	\$ 14,249	\$ 9,047,662	\$ 132,929
December 31, 2020						
Government-sponsored enterprise obligations	\$ 19,720	\$ 98	\$ —	\$ —	\$ 19,720	\$ 98
State and municipal obligations	45,622	230	—	—	45,622	230
Mortgage and asset-backed securities:						
Agency mortgage-backed securities	470,373	2,802	—	—	470,373	2,802
Non-agency mortgage-backed securities	112,861	380	—	—	112,861	380
Asset-backed securities	21,360	56	253,734	2,617	275,094	2,673
Total mortgage and asset-backed securities	604,594	3,238	253,734	2,617	858,328	5,855
Other debt securities	24,522	175	—	—	24,522	175
Total	\$ 694,458	\$ 3,741	\$ 253,734	\$ 2,617	\$ 948,192	\$ 6,358

The entire available for sale debt securities portfolio included \$9.0 billion of securities that were in a loss position at December 31, 2021, compared to \$948.2 million at December 31, 2020. The total amount of unrealized loss on these securities was \$132.9 million at December 31, 2021, an increase of \$126.6 million compared to the unrealized loss at December 31, 2020. Securities with significant unrealized losses are discussed in the "Allowance for credit losses on available for sale debt securities" section above.

For debt securities classified as available for sale, the following table shows the amortized cost, fair value, and allowance for credit losses of securities available for sale at December 31, 2021 and 2020 and the corresponding amounts of gross unrealized gains and losses (pre-tax) in AOCI, by security type.

<i>(In thousands)</i>	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Allowance for Credit Losses	Fair Value
December 31, 2021					
U.S. government and federal agency obligations	\$ 1,035,477	\$ 47,484	\$ (2,241)	—	\$ 1,080,720
Government-sponsored enterprise obligations	50,773	1,901	(919)	—	51,755
State and municipal obligations	2,072,210	41,540	(16,923)	—	2,096,827
Mortgage and asset-backed securities:					
Agency mortgage-backed securities	5,698,088	52,676	(67,764)	—	5,683,000
Non-agency mortgage-backed securities	1,383,037	681	(17,241)	—	1,366,477
Asset-backed securities	3,546,024	12,921	(19,726)	—	3,539,219
Total mortgage and asset-backed securities	10,627,149	66,278	(104,731)	—	10,588,696
Other debt securities	633,524	6,620	(8,115)	—	632,029
Total	\$ 14,419,133	\$ 163,823	\$ (132,929)	\$ —	\$ 14,450,027
December 31, 2020					
U.S. government and federal agency obligations	\$ 775,592	\$ 62,467	\$ —	—	\$ 838,059
Government-sponsored enterprise obligations	50,803	3,780	(98)	—	54,485
State and municipal obligations	1,968,006	77,323	(230)	—	2,045,099
Mortgage and asset-backed securities:					
Agency mortgage-backed securities	6,557,098	157,789	(2,802)	—	6,712,085
Non-agency mortgage-backed securities	358,074	3,380	(380)	—	361,074
Asset-backed securities	1,853,791	31,125	(2,673)	—	1,882,243
Total mortgage and asset-backed securities	8,768,963	192,294	(5,855)	—	8,955,402
Other debt securities	534,169	22,225	(175)	—	556,219
Total	\$ 12,097,533	\$ 358,089	\$ (6,358)	\$ —	\$ 12,449,264

The following table presents proceeds from sales of securities and the components of investment securities gains and losses which have been recognized in earnings.

<i>(In thousands)</i>	For the Year Ended December 31		
	2021	2020	2019
Proceeds from sales of securities:			
Available for sale debt securities	\$ 69,809	\$ 602,475	\$ 402,103
Equity securities	—	2	3,856
Other	11,002	—	7,244
Total proceeds	\$ 80,811	\$ 602,477	\$ 413,203
Investment securities gains (losses), net:			
Available for sale debt securities:			
Gains realized on sales	\$ —	\$ 21,096	\$ 2,354
Losses realized on sales	(3,284)	—	(2,568)
Other-than-temporary impairment recognized on debt securities	—	—	(133)
Equity securities:			
Gains realized on sales	—	2	3,262
Fair value adjustments, net	187	37	344
Other:			
Gains realized on sales	1,611	—	1,094
Losses realized on sales	(159)	—	—
Fair value adjustments, net	31,704	(10,103)	(727)
Total investment securities gains (losses), net	\$ 30,059	\$ 11,032	\$ 3,626

At December 31, 2021, securities totaling \$6.4 billion in fair value were pledged to secure public fund deposits, securities sold under agreements to repurchase, trust funds, and borrowings at the FRB and FHLB, compared to \$4.8 billion at December 31, 2020. Securities pledged under agreements pursuant to which the collateral may be sold or re-pledged by the secured parties approximated \$214.6 million, while the remaining securities were pledged under agreements pursuant to which the secured parties may not sell or re-pledge the collateral.

Except for obligations of various government-sponsored enterprises such as FNMA, FHLB and FHLMC, no investment in a single issuer exceeds 10% of stockholders' equity.

4. Premises and Equipment

Premises and equipment consist of the following at December 31, 2021 and 2020:

<i>(In thousands)</i>	2021	2020
Land	\$ 91,003	\$ 93,492
Buildings and improvements	622,642	582,056
Equipment	242,455	239,216
Right of use leased assets	25,677	29,589
Total	981,777	944,353
Less accumulated depreciation	593,039	573,270
Net premises and equipment	\$ 388,738	\$ 371,083

Depreciation expense of \$31.9 million in 2021, \$32.2 million in 2020 and \$30.8 million in 2019, was included in occupancy expense and equipment expense in the consolidated statements of income. Repairs and maintenance expense of \$16.0 million, \$16.4 million and \$17.8 million for 2021, 2020 and 2019, respectively, was included in occupancy expense and equipment expense. Interest expense capitalized on constructions projects totaled \$29 thousand and \$14 thousand in 2021 and 2020, respectively. There was no interest expense capitalized on constructions projects in 2019.

Right of use leased assets are comprised mainly of operating leases for branches, office space, ATM locations, and certain equipment, as described in Note 6.

5. Goodwill and Other Intangible Assets

The following table presents information about the Company's intangible assets which have estimable useful lives.

<i>(In thousands)</i>	December 31, 2021				December 31, 2020			
	Gross Carrying Amount	Accumulated Amortization	Valuation Allowance	Net Amount	Gross Carrying Amount	Accumulated Amortization	Valuation Allowance	Net Amount
Amortizable intangible assets:								
Core deposit premium	\$ 31,270	\$ (30,266)	\$ —	\$ 1,004	\$ 31,270	\$ (29,912)	\$ —	\$ 1,358
Mortgage servicing rights	20,870	(9,600)	(304)	10,966	15,238	(6,886)	(2,103)	6,249
Total	\$ 52,140	\$ (39,866)	\$ (304)	\$ 11,970	\$ 46,508	\$ (36,798)	\$ (2,103)	\$ 7,607

The carrying amount of goodwill and its allocation among segments at December 31, 2021 and 2020 is shown in the table below. As a result of ongoing assessments, no impairment of goodwill was recorded in 2021, 2020 or 2019. Further, the annual assessment of qualitative factors on January 1, 2022 revealed no likelihood of impairment as of that date.

<i>(In thousands)</i>	December 31, 2021	December 31, 2020
Consumer segment	\$ 70,721	\$ 70,721
Commercial segment	67,454	67,454
Wealth segment	746	746
Total goodwill	\$ 138,921	\$ 138,921

Changes in the net carrying amount of goodwill and other net intangible assets for the years ended December 31, 2021 and 2020 are shown in the following table. During the year ended December 31, 2020, the Company purchased an easement for \$3.6 million in connection with the Developer Services Agreement that was signed during the third quarter of 2020 to develop a commercial office complex in Clayton, Missouri. The easement, which grants the Company access to all portions of the parking facility and terrace garden, is perpetual and will be assessed for impairment at least annually, or whenever events or circumstances indicate an impairment may have occurred. No impairment was identified at December 31, 2021.

<i>(In thousands)</i>	Goodwill	Easement	Core Deposit Premium	Mortgage Servicing Rights
Balance at December 31, 2019	\$ 138,921	\$ —	\$ 1,785	\$ 7,749
Originations, net of disposals	—	3,600	—	2,296
Amortization	—	—	(427)	(2,020)
Impairment	—	—	—	(1,776)
Balance at December 31, 2020	138,921	3,600	1,358	6,249
Originations, net of disposals	—	—	—	5,632
Amortization	—	—	(354)	(2,714)
Impairment recovery	—	—	—	1,799
Balance at December 31, 2021	\$ 138,921	\$ 3,600	\$ 1,004	\$ 10,966

Mortgage servicing rights (MSRs) are initially recorded at fair value and subsequently amortized over the period of estimated servicing income. They are periodically reviewed for impairment at a tranche level, and if impairment is indicated, recorded at fair value. Temporary impairment, including impairment recovery, is effected through a change in a valuation allowance. At December 31, 2021, temporary impairment of \$304 thousand had been recognized. The fair value of the MSRs is based on the present value of expected future cash flows, as further discussed in Note 17 on Fair Value Measurements.

Aggregate amortization expense on intangible assets for the years ended December 31, 2021, 2020 and 2019 was \$3.1 million, \$2.4 million and \$1.5 million, respectively. The following table shows the estimated future amortization expense based on existing asset balances and the interest rate environment as of December 31, 2021. The Company's actual amortization expense in any given period may be different from the estimated amounts depending upon the acquisition of intangible assets, changes in mortgage interest rates, prepayment rates and other market conditions.

<i>(In thousands)</i>	
2022	\$ 1,946
2023	1,639
2024	1,377
2025	1,152
2026	955

6. Leases

The Company's leasing activities include leasing certain real estate and equipment, providing lease financing to commercial customers, and leasing office space to third parties. The Company uses the FHLB fixed-advance rate at lease commencement or at any subsequent remeasurement event date based on the remaining lease term to calculate the liability for each lease.

Lessee

The Company primarily has operating leases for branches, office space, ATM locations, and certain equipment. As of December 31, 2021, the right-of-use asset for operating leases, reported within premises and equipment, net, and lease liability, reported within other liabilities, recognized on the Company's consolidated balance sheets totaled \$25.2 million and \$27.2 million, respectively, compared to right-of-use assets of \$28.3 million and lease liability of \$29.2 million at December 31, 2020. Total lease cost for the year ended December 31, 2021 was \$7.7 million, compared to \$7.4 million for the year ended December 31, 2020. For leases with a term of 12 months or less, an election was made not to recognize lease assets and lease liabilities for all asset classes, and to recognize lease expense for these leases on a straight-line basis over the lease term. The Company's leases have remaining terms of 1 month to 32 years, most of which contain renewal options. However, the renewal options are generally not included in the leased asset or liability because the option exercises are uncertain.

The maturities of operating leases are included in the table below.

<i>(in thousands)</i>	Operating Leases
2022	\$ 6,009
2023	5,348
2024	3,969
2025	2,507
2026	1,768
After 2026	13,727
Total lease payments	\$ 33,328
Less: Interest ⁽¹⁾	6,133
Present value of lease liabilities	\$ 27,195

(1) Calculated using the interest rate for each lease.

The following table presents the average lease term and discount rate of operating leases.

	December 31, 2021	December 31, 2020
Weighted-average remaining lease term	11.1 years	11.3 years
Weighted-average discount rate	3.05 %	3.29 %

Supplemental cash flow information related to operating leases is included in the table below.

<i>(in thousands)</i>	For the Year Ended December 31	
	2021	2020
Operating cash paid toward lease liabilities	\$ 6,180	6,213
Leased assets obtained in exchange for new lease liabilities	\$ 4,407	7,482

Lessor

The Company has net investments in direct financing and sales-type leases to commercial, industrial, and tax-exempt entities. These leases are included within business loans on the Company's consolidated balance sheets. The Company primarily leases various types of equipment, trucks and trailers, and office furniture and fixtures. Lease agreements may include options for the lessee to renew or purchase the leased equipment at the end of the lease term. The Company has elected to adopt the lease component expedient in which the lease and nonlease components are combined into the total lease receivable. The Company also leases office space to third parties, and these leases are classified as operating leases. The leases may include options to renew or to expand the leased space, and currently the leases have remaining terms of 1 month to 6 years.

The following table provides the components of lease income.

<i>(in thousands)</i>	For the Year Ended December 31	
	2021	2020
Direct financing and sales-type leases	22,736	25,380
Operating leases ⁽¹⁾	7,488	8,589
Total lease income	\$ 30,224	\$ 33,969

(1) Includes rent from Tower Properties, a related party, of \$76 thousand for the years ended December 31, 2021 and 2020.

The following table presents the components of the net investments in direct financing and sales-type leases.

<i>(in thousands)</i>	December 31, 2021	December 31, 2020
Lease payment receivable	\$ 655,885	\$ 729,649
Unguaranteed residual assets	66,638	64,211
Total net investments in direct financing and sales-type leases	\$ 722,523	\$ 793,860
Deferred origination cost	3,035	3,581
Total net investment included within business loans	\$ 725,558	\$ 797,441

The maturities of lease receivables are included in the table below.

<i>(in thousands)</i>	Direct Financing and Sale-Type Leases	Operating Leases	Total
2022	\$ 220,268	\$ 8,085	\$ 228,353
2023	148,968	7,945	156,913
2024	114,483	7,158	121,641
2025	81,255	5,849	87,104
2026	55,950	5,010	60,960
After 2026	82,390	18,507	100,897
Total lease receipts	703,314	\$ 52,554	\$ 755,868
Less: Net present value adjustment	47,429		
Present value of lease receipts	\$ 655,885		

7. Deposits

At December 31, 2021, the scheduled maturities of certificates of deposit were as follows:

<i>(In thousands)</i>	
Due in 2022	\$ 1,138,020
Due in 2023	201,488
Due in 2024	34,923
Due in 2025	38,499
Due in 2026	29,677
Thereafter	7
Total	\$ 1,442,614

The aggregate amount of certificates of deposit that exceeded the \$250,000 FDIC insurance limit totaled \$810.4 million at December 31, 2021.

8. Borrowings

At December 31, 2021, the Company's borrowings primarily consisted of federal funds purchased and securities sold under agreements to repurchase (repurchase agreements). The following table sets forth selected information for federal funds purchased and repurchase agreements.

<i>(Dollars in thousands)</i>	Year End Weighted Rate	Average Weighted Rate	Average Balance Outstanding	Maximum Outstanding at any Month End	Balance at December 31
Federal funds purchased and repurchase agreements:					
2021	.06 %	.1 %	\$ 2,334,837	\$ 3,022,967	\$ 3,022,967
2020	.04	.3	1,966,479	2,314,756	2,098,383
2019	.8	1.6	1,822,098	2,394,294	1,850,772

Federal funds purchased and repurchase agreements comprised the majority of the Company's short-term borrowings (borrowings with an original maturity of less than one year at December 31, 2021), and \$3.0 billion of these borrowings were repurchase agreements, which generally have one day maturities and are mainly comprised of non-insured customer funds secured by a portion of the Company's investment portfolio. Additional information about the securities pledged for repurchase agreements and repurchase agreement maturity are provided in Note 20 on Resale and Repurchase Agreements.

The Bank is a member of the Des Moines FHLB and has access to term financing from the FHLB. These borrowings are secured under a blanket collateral agreement including primarily residential mortgages as well as all unencumbered assets and stock of the borrowing bank. At December 31, 2021, the Bank had no outstanding advances from the FHLB. The FHLB also issues letters of credit to secure the Bank's obligations to certain depositors of public funds, which totaled \$427.7 million at December 31, 2021.

9. Income Taxes

The components of income tax expense from operations for the years ended December 31, 2021, 2020 and 2019 were as follows:

<i>(In thousands)</i>	Current	Deferred	Total
Year ended December 31, 2021:			
U.S. federal	\$ 104,924	\$ 22,184	\$ 127,108
State and local	15,174	3,429	18,603
Total	\$ 120,098	\$ 25,613	\$ 145,711
Year ended December 31, 2020:			
U.S. federal	\$ 92,035	\$ (14,055)	\$ 77,980
State and local	14,798	(5,485)	9,313
Total	\$ 106,833	\$ (19,540)	\$ 87,293
Year ended December 31, 2019:			
U.S. federal	\$ 82,556	\$ 11,388	\$ 93,944
State and local	12,323	2,807	15,130
Total	\$ 94,879	\$ 14,195	\$ 109,074

The components of income tax (benefit) expense recorded directly to stockholders' equity for the years ended 2021, 2020 and 2019 were as follows:

<i>(In thousands)</i>	2021	2020	2019
Unrealized gain (loss) on available for sale debt securities	\$ (80,211)	\$ 53,909	\$ 50,163
Change in fair value on cash flow hedges	(6,040)	20,795	7,818
Accumulated pension (benefit) loss	1,484	(1,059)	389
Adoption of ASU 2016-13	—	1,183	—
Income tax (benefit) expense allocated to stockholders' equity	\$ (84,767)	\$ 74,828	\$ 58,370

Significant components of the Company's deferred tax assets and liabilities at December 31, 2021 and 2020 were as follows:

<i>(In thousands)</i>	2021	2020
Deferred tax assets:		
Loans, principally due to allowance for credit losses	\$ 41,507	\$ 62,849
Deferred compensation	7,777	7,173
Equity-based compensation	7,348	7,870
Accrued expenses	6,340	5,569
Unearned fee income	5,258	5,329
Other	3,284	6,648
Total deferred tax assets	71,514	95,438
Deferred tax liabilities:		
Equipment lease financing	74,827	74,538
Cash flow hedges	23,633	29,382
Land, buildings, and equipment	18,728	20,114
Unrealized gain on available for sale debt securities	7,724	87,933
Intangible assets	7,459	7,015
Other	11,430	7,895
Total deferred tax liabilities	143,801	226,877
Net deferred tax liabilities	\$ (72,287)	\$ (131,439)

Management believes it is more likely than not that the results of future operations will generate sufficient taxable income to realize the total deferred tax assets, therefore, no valuation allowance is needed for the deferred tax assets at year end.

A reconciliation between the expected federal income tax expense using the federal statutory tax rate of 21%, and the Company's actual income tax expense for 2021, 2020, and 2019 is provided below. The effective tax rate is calculated by dividing income taxes by income before income taxes less the non-controlling interest expense.

<i>(In thousands)</i>	2021	2020	2019
Computed "expected" tax expense	\$ 142,060	\$ 92,683	\$ 111,364
Increase (decrease) in income taxes resulting from:			
Tax-exempt interest, net of cost to carry	(9,002)	(10,013)	(10,973)
State and local income taxes, net of federal tax benefit	14,697	7,357	11,953
Share-based award payments	(2,941)	(3,090)	(3,337)
Other	897	356	67
Total income tax expense	\$ 145,711	\$ 87,293	\$ 109,074

The gross amount of unrecognized tax benefits was \$1.3 million at both December 31, 2021 and 2020, and the total amount of unrecognized tax benefits that would impact the effective tax rate, if recognized, was \$1.0 million and \$1.1 million at December 31, 2021 and 2020, respectively. The activity in the accrued liability for unrecognized tax benefits for the years ended December 31, 2021 and 2020 was as follows:

<i>(In thousands)</i>	2021	2020
Unrecognized tax benefits at beginning of year	\$ 1,331	\$ 1,372
Gross increases – tax positions in prior period	15	3
Gross decreases – tax positions in prior period	(8)	(51)
Gross increases – current-period tax positions	222	266
Lapse of statute of limitations	(284)	(259)
Unrecognized tax benefits at end of year	\$ 1,276	\$ 1,331

The Company and its subsidiaries are subject to income tax by federal, state and local government taxing authorities. Tax years 2018 through 2021 remain open to examination for U.S. federal income tax and for major state taxing jurisdictions.

10. Employee Benefit Plans

Employee benefits charged to operating expenses are summarized in the table below. Substantially all of the Company's employees are covered by a defined contribution (401(k)) plan, under which the Company makes matching contributions.

<i>(In thousands)</i>	2021	2020	2019
Payroll taxes	\$ 28,084	\$ 27,664	\$ 26,959
Medical plans	31,131	30,002	29,635
401(k) plan	17,237	16,834	15,810
Pension plans	388	410	605
Other	1,170	1,990	3,049
Total employee benefits	\$ 78,010	\$ 76,900	\$ 76,058

A portion of the Company's employees are covered by a noncontributory defined benefit pension plan, however, participation in the pension plan is not available to employees hired after June 30, 2003. All participants are fully vested in their benefit payable upon normal retirement date, which is based on years of participation and compensation. Since January 2011, all benefits accrued under the pension plan have been frozen. However, the accounts continue to accrue interest at a stated annual rate. Certain key executives also participate in a supplemental executive retirement plan (the CERP) that the Company funds only as retirement benefits are disbursed. The CERP carries no segregated assets. The CERP continues to provide credits based on hypothetical contributions in excess of those permitted under the 401(k) plan. In the tables presented below, the pension plan and the CERP are presented on a combined basis.

Under the Company's funding policy for the defined benefit pension plan, contributions are made to a trust as necessary to satisfy the statutory minimum required contribution as defined by the Pension Protection Act, which is intended to provide for current service accruals and for any unfunded accrued actuarial liabilities over a reasonable period. To the extent that these requirements are fully covered by assets in the trust, a contribution might not be made in a particular year. No contributions to the defined benefit plan were made in 2021, 2020 or 2019. The minimum required contribution for 2022 is expected to be zero. The Company does not expect to make any further contributions in 2022 other than the necessary funding contributions to the CERP. Contributions to the CERP were \$14 thousand, \$80 thousand and \$25 thousand during 2021, 2020 and 2019, respectively.

The following items are components of the net pension cost for the years ended December 31, 2021, 2020 and 2019.

<i>(In thousands)</i>	2021	2020	2019
Service cost-benefits earned during the year	\$ 388	\$ 410	\$ 607
Interest cost on projected benefit obligation	2,169	3,282	4,198
Expected return on plan assets	(4,532)	(5,214)	(4,842)
Amortization of prior service cost	(271)	(271)	(271)
Amortization of unrecognized net loss	2,578	2,138	2,288
Net periodic pension cost	\$ 332	\$ 345	\$ 1,980

The following table sets forth the pension plans' funded status, using valuation dates of December 31, 2021 and 2020.

<i>(In thousands)</i>	2021	2020
Change in projected benefit obligation		
Projected benefit obligation at prior valuation date	\$ 127,163	\$ 120,602
Service cost	388	410
Interest cost	2,169	3,282
Benefits paid	(6,735)	(6,765)
Actuarial (gain) loss	(1,247)	9,634
Projected benefit obligation at valuation date	121,738	127,163
Change in plan assets		
Fair value of plan assets at prior valuation date	109,615	107,556
Actual return on plan assets	6,913	8,744
Employer contributions	14	80
Benefits paid	(6,735)	(6,765)
Fair value of plan assets at valuation date	109,807	109,615
Funded status and net amount recognized at valuation date	\$ (11,931)	\$ (17,548)

The pension benefit obligation decreased from the prior year primarily due to an increase in the discount rate from 2.25% to 2.58%, which decreased the pension benefit liability by approximately \$4.1 million. This decrease was partially offset by updates to lump sum payment assumptions, which increased the pension obligation by approximately \$1.0 million, and the mortality scale. The Company utilizes mortality tables published by the Society of Actuaries to incorporate mortality assumptions into the measurement of the pension benefit obligation. At December 31, 2021, the Company utilized an updated mortality projection scale, which increased the pension benefit obligation on that date by approximately \$300 thousand.

The accumulated benefit obligation, which represents the liability of a plan using only benefits as of the measurement date, was \$121.7 million and \$127.2 million for the combined plans on December 31, 2021 and 2020, respectively.

Amounts not yet reflected in net periodic benefit cost and included in accumulated other comprehensive income (loss) at December 31, 2021 and 2020 are shown below, including amounts recognized in other comprehensive income during the periods. All amounts are shown on a pre-tax basis.

<i>(In thousands)</i>	2021	2020
Prior service cost	\$ 723	\$ 994
Accumulated loss	(28,277)	(34,482)
Accumulated other comprehensive loss	(27,554)	(33,488)
Cumulative employer contributions in excess of net periodic benefit cost	15,623	15,940
Net amount recognized as an accrued benefit liability on the December 31 balance sheet	\$ (11,931)	\$ (17,548)
Net gain (loss) arising during period	3,627	(6,104)
Amortization of net loss	2,578	2,138
Amortization of prior service cost	(271)	(271)
Total recognized in other comprehensive income (loss)	\$ 5,934	\$ (4,237)
Total income (expense) recognized in net periodic pension cost and other comprehensive income	\$ 5,602	\$ (4,582)

The following assumptions, on a weighted average basis, were used in accounting for the plans.

	2021	2020	2019
Determination of benefit obligation at year end:			
Effective discount rate for benefit obligations	2.58%	2.25%	3.07%
Assumed credit on cash balance accounts	5.00%	5.00%	5.00%
Determination of net periodic benefit cost for year ended:			
Effective discount rate for benefit obligations	2.25%	3.08%	4.13%
Effective rate for interest on benefit obligations	1.63%	2.69%	3.81%
Long-term rate of return on assets	4.25%	5.00%	5.00%
Assumed credit on cash balance accounts	5.00%	5.00%	5.00%

The following table shows the fair values of the Company's pension plan assets by asset category at December 31, 2021 and 2020. Information about the valuation techniques and inputs used to measure fair value are provided in Note 17 on Fair Value Measurements.

(In thousands)	Total Fair Value	Fair Value Measurements		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2021				
Assets:				
U.S. government obligations	\$ 6,824	\$ 6,824	\$ —	\$ —
Government-sponsored enterprise obligations ^(a)	2,066	—	2,066	—
State and municipal obligations	8,000	—	8,000	—
Agency mortgage-backed securities ^(b)	3,266	—	3,266	—
Non-agency mortgage-backed securities	2,974	—	2,974	—
Asset-backed securities	7,648	—	7,648	—
Corporate bonds ^(c)	40,832	—	40,832	—
Equity securities and mutual funds: ^(d)				
Mutual funds	6,004	6,004	—	—
Common stocks	27,702	27,702	—	—
International developed markets funds	3,943	3,943	—	—
Emerging markets funds	548	548	—	—
Total	\$ 109,807	\$ 45,021	\$ 64,786	\$ —
December 31, 2020				
Assets:				
U.S. government obligations	\$ 5,306	\$ 5,306	\$ —	\$ —
Government-sponsored enterprise obligations ^(a)	2,142	—	2,142	—
State and municipal obligations	9,471	—	9,471	—
Agency mortgage-backed securities ^(b)	6,984	—	6,984	—
Non-agency mortgage-backed securities	2,225	—	2,225	—
Asset-backed securities	6,090	—	6,090	—
Corporate bonds ^(c)	41,278	—	41,278	—
Equity securities and mutual funds: ^(d)				
Mutual funds	5,584	5,584	—	—
Common stocks	24,991	24,991	—	—
International developed markets funds	1,976	1,976	—	—
Emerging markets funds	3,568	3,568	—	—
Total	\$ 109,615	\$ 41,425	\$ 68,190	\$ —

(a) This category represents bonds (excluding mortgage-backed securities) issued by agencies such as the Government National Mortgage Association, the Federal Home Loan Mortgage Corp and the Federal National Mortgage Association.

(b) This category represents mortgage-backed securities issued by the agencies mentioned in (a).

(c) This category represents investment grade bonds issued in the U.S., primarily by domestic issuers, representing diverse industries.

(d) This category represents investments in individual common stocks and equity funds. These holdings are diversified, largely across the technology services, financial services, electronic technology, healthcare, and process industries.

The investment policy of the pension plan is designed for growth in principal, within limits designed to safeguard against significant losses within the portfolio. The policy sets guidelines, which may change from time to time, regarding the types and percentages of investments held. Currently, the policy includes guidelines such as holding bonds rated investment grade or better and prohibiting investment in Company stock. The plan does not utilize derivatives. Management believes there are no significant concentrations of risk within the plan asset portfolio at December 31, 2021. Under the current policy, the long-term investment target mix for the plan is 35% equity securities and 65% fixed income securities. The Company regularly reviews its policies on investment mix and may make changes depending on economic conditions and perceived investment risk.

The assumed overall expected long-term rate of return on pension plan assets used in calculating 2021 pension plan expense was 4.25%. Determination of the plan's expected rate of return is based upon historical and anticipated returns of the asset classes invested in by the pension plan and the allocation strategy currently in place among those classes. The rate used in plan calculations may be adjusted by management for current trends in the economic environment. The 10-year annualized return for the Company's pension plan was 7.3%. During 2021, the plan's assets gained 5.9% of their value, compared to a gain of 8.9% in 2020. Returns for any plan year may be affected by changes in the stock market and interest rates. The Company expects to incur pension expense of \$405 thousand in 2022, compared to \$332 thousand in 2021.

The following future benefit payments are expected to be paid:

<i>(In thousands)</i>	
2022	\$ 7,545
2023	7,656
2024	7,550
2025	7,502
2026	7,441
2027 - 2031	34,922

11. Stock-Based Compensation and Directors Stock Purchase Plan*

The Company's stock-based compensation is provided under a stockholder-approved plan that allows for issuance of various types of awards, including stock options, stock appreciation rights, restricted stock and restricted stock units, performance awards and stock-based awards. During the past three years, stock-based compensation has been issued in the form of nonvested restricted stock awards and stock appreciation rights. At December 31, 2021, 1,839,368 shares remained available for issuance under the plan. The stock-based compensation expense that was charged against income was \$15.4 million, \$14.9 million and \$13.9 million for the years ended December 31, 2021, 2020 and 2019, respectively. The total income tax benefit recognized in the income statement for share-based compensation arrangements was \$2.7 million, \$3.0 million and \$3.0 million for the years ended December 31, 2021, 2020 and 2019, respectively.

Nonvested Restricted Stock Awards

Nonvested stock is awarded to key employees by action of the Company's Compensation and Human Resources Committee and Board of Directors. These awards generally vest after 4 to 7 years of continued employment, but vesting terms may vary according to the specifics of the individual grant agreement. There are restrictions as to transferability, sale, pledging, or assigning, among others, prior to the end of the vesting period. Dividend and voting rights are conferred upon grant of restricted stock awards. A summary of the status of the Company's nonvested share awards as of December 31, 2021 and changes during the year then ended is presented below.

	Shares	Weighted Average Grant Date Fair Value
Nonvested at January 1, 2021	1,154,573	\$ 49.63
Granted	253,422	68.50
Vested	(258,136)	41.49
Forfeited	(29,368)	55.75
Nonvested at December 31, 2021	1,120,491	\$ 55.58

The total fair value (at vest date) of shares vested during 2021, 2020 and 2019 was \$17.6 million, \$18.0 million and \$19.9 million, respectively.

Stock Appreciation Rights

Stock appreciation rights (SARs) are granted with exercise prices equal to the market price of the Company's stock at the date of grant. SARs generally vest ratably over 4 years of continuous service and have 10-year contractual terms. All SARs must be settled in stock under provisions of the plan. A summary of SAR activity during 2021 is presented below.

<i>(Dollars in thousands, except per share data)</i>	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2021	1,055,767	\$ 42.81		
Granted	75,943	69.44		
Forfeited	(8,391)	56.80		
Expired	(485)	55.35		
Exercised	(226,486)	37.73		
Outstanding at December 31, 2021	896,348	\$ 46.21	5.7 years	\$ 20,327
Exercisable at December 31, 2021	582,072	\$ 40.18	4.7 years	\$ 16,624

In determining compensation cost, the Black-Scholes option-pricing model is used to estimate the fair value of SARs on date of grant. The Black-Scholes model is a closed-end model that uses various assumptions as shown in the following table. Expected volatility is based on historical volatility of the Company's stock. The Company uses historical exercise behavior and other factors to estimate the expected term of the SARs, which represents the period of time that the SARs granted are expected to be outstanding. The risk-free rate for the expected term is based on the U.S. Treasury zero coupon spot rates in effect at the time of grant. The per share average fair value and the model assumptions for SARs granted during the past three years are shown in the table below.

	2021	2020	2019
Weighted per share average fair value at grant date	\$15.98	\$9.18	\$10.30
Assumptions:			
Dividend yield	1.4 %	1.7 %	1.7 %
Volatility	28.2 %	20.2 %	19.8 %
Risk-free interest rate	.7 %	1.0 %	2.6 %
Expected term	5.7 years	5.8 years	6.0 years

Additional information about SARs exercised is presented below.

<i>(In thousands)</i>	2021	2020	2019
Intrinsic value of SARs exercised	\$ 7,664	\$ 6,278	\$ 7,109
Tax benefit realized SARs exercised	\$ 1,488	\$ 1,252	\$ 1,385

As of December 31, 2021, there was \$29.5 million of unrecognized compensation cost related to unvested SARs and stock awards. This cost is expected to be recognized over a weighted average period of approximately 3 years.

Directors Stock Purchase Plan

The Company has a directors stock purchase plan whereby outside directors of the Company and its subsidiaries may elect to use their directors' fees to purchase Company stock at market value each month end. Remaining shares available for issuance under this plan were 755 at December 31, 2021. During February 2022, shares authorized for issuance under the plan were increased to 150,000. In 2021, 13,388 shares were purchased at an average price of \$69.15, and in 2020, 22,904 shares were purchased at an average price of \$57.67.

* All share and per share amounts in this note have been restated for the 5% common stock dividend distributed in 2021.

12. Accumulated Other Comprehensive Income

The table below shows the activity and accumulated balances for components of other comprehensive income. The largest component is the unrealized holding gains and losses on available for sale debt securities. Another component is the amortization from other comprehensive income of losses associated with pension benefits, which occurs as the losses are included in current net periodic pension cost. The remaining component is gains in fair value on certain interest rate floors that have been designated as cash flow hedges. The interest rate floors were terminated during 2020, and the realized gains will be amortized into interest income through the original maturity dates of the interest rate floors. Information about unrealized gains and losses on securities can be found in Note 3, and information about unrealized gains on cash flow hedge derivatives is located in Note 19. Information about unrealized gains and losses on pension plans can be found in Note 10.

The Company adopted ASU 2016-13 (CECL) on January 1, 2020, which changed the impairment model for available for sale debt securities. CECL requires an allowance for credit losses when the present value of the cash flows expected to be collected is less than the security's amortized cost basis and superseded the guidance related to other-than-temporary impairment (OTTI), including the requirement to separately disclose the unrealized gains and losses on securities with OTTI. Prior to the Company's adoption of CECL, unrealized gains and losses on debt securities for which an OTTI has been recorded in current earnings were shown separately below. As a result of adopting CECL, the table below will separately disclose unrealized gains and losses on debt securities for which an allowance for credit losses has been recorded. During the years ended December 31, 2021 and 2020, there were no securities for which an allowance for credit losses was recorded.

<i>(In thousands)</i>	Unrealized Gains (Losses) on Securities (1)		Pension Loss	Unrealized Gains on Cash Flow Hedge Derivatives (2)	Total Accumulated Other Comprehensive Income (Loss)
	OTTI	Other			
Balance January 1, 2021	\$ —	\$ 263,801	\$ (25,118)	\$ 92,694	\$ 331,377
Other comprehensive income (loss) before reclassifications	—	(324,122)	3,627	—	(320,495)
Amounts reclassified from accumulated other comprehensive income	—	3,284	2,307	(24,160)	(18,569)
Current period other comprehensive income (loss), before tax	—	(320,838)	5,934	(24,160)	(339,064)
Income tax (expense) benefit	—	80,211	(1,484)	6,040	84,767
Current period other comprehensive income (loss), net of tax	—	(240,627)	4,450	(18,120)	(254,297)
Balance December 31, 2021	\$ —	\$ 23,174	\$ (20,668)	\$ 74,574	\$ 77,080
Balance January 1, 2020	\$ 3,264	\$ 98,809	\$ (21,940)	\$ 30,311	\$ 110,444
Adoption of ASU 2016-13	(3,264)	3,264	—	—	—
Balance January 1, 2020, adjusted	\$ —	\$ 102,073	\$ (21,940)	\$ 30,311	\$ 110,444
Other comprehensive income (loss) before reclassifications	—	236,733	(6,104)	93,497	324,126
Amounts reclassified from accumulated other comprehensive income	—	(21,096)	1,867	(10,319)	(29,548)
Current period other comprehensive income (loss), before tax	—	215,637	(4,237)	83,178	294,578
Income tax (expense) benefit	—	(53,909)	1,059	(20,795)	(73,645)
Current period other comprehensive income (loss), net of tax	—	161,728	(3,178)	62,383	220,933
Balance December 31, 2020	\$ —	\$ 263,801	\$ (25,118)	\$ 92,694	\$ 331,377

(1) The pre-tax amounts reclassified from accumulated other comprehensive income to current earnings are included in "investment securities gains (losses), net" in the consolidated statements of income.

(2) The pre-tax amounts reclassified from accumulated other comprehensive income to current earnings are included in "interest and fees on loans" in the consolidated statements of income.

13. Segments

The Company segregates financial information for use in assessing its performance and allocating resources among three operating segments: Consumer, Commercial, and Wealth. The Consumer segment consists of various consumer loan and deposit products offered through its retail branch network of approximately 150 locations. This segment also includes indirect and other consumer loan financing businesses, along with debit and credit card loan and fee businesses. Residential mortgage origination, sales and servicing functions are included in this Consumer segment, but residential mortgage loans retained by the Company are not considered part of this segment and are instead included in the Other segment. The Commercial segment provides corporate lending (including the Small Business Banking product line within the branch network), leasing, and international services, along with business and governmental deposit products and commercial cash management services. This segment also includes both merchant and commercial bank card products as well as the Capital Markets Group, which sells fixed income securities and provides securities safekeeping and accounting services to its business and correspondent bank customers. The Wealth segment provides traditional trust and estate planning, advisory and discretionary investment management, and brokerage services. This segment also provides various loan and deposit related services to its private banking customers.

The Company's business line reporting system derives segment information from the internal profitability reporting system used by management to monitor and manage the financial performance of the Company. This information is based on internal management accounting procedures and methods, which have been developed to reflect the underlying economics of the businesses. These methodologies are applied in connection with funds transfer pricing and assignment of overhead costs among segments. Funds transfer pricing was used in the determination of net interest income by assigning a standard cost (credit) for funds used for (provided by) assets and liabilities based on their maturity, prepayment and/or repricing characteristics. Income and expense that directly relate to segment operations are recorded in the segment when incurred. Expenses that indirectly support the segments are allocated based on the most appropriate method available.

The Company uses a funds transfer pricing method to value funds used (e.g., loans, fixed assets, and cash) and funds provided (e.g., deposits, borrowings, and equity) by the business segments and their components. This process assigns a specific value to each new source or use of funds with a maturity, based on current swap rates, thus determining an interest spread at the time of the transaction. Non-maturity assets and liabilities are valued using weighted average pools. The funds transfer pricing process attempts to remove interest rate risk from valuation, allowing management to compare profitability under various rate environments.

The following tables present selected financial information by segment and reconciliations of combined segment totals to consolidated totals. There were no material intersegment revenues between the three segments. Management periodically makes changes to methods of assigning costs and income to its business segments to better reflect operating results. If appropriate, these changes are reflected in prior year information presented below.

Segment Income Statement Data

<i>(In thousands)</i>	Consumer	Commercial	Wealth	Segment Totals	Other/ Elimination	Consolidated Totals
Year ended December 31, 2021:						
Net interest income	\$ 319,439	\$ 453,692	\$ 71,522	\$ 844,653	\$ (9,229)	\$ 835,424
Provision for credit losses	(23,249)	4,845	(52)	(18,456)	84,782	66,326
Non-interest income	147,273	211,048	213,617	571,938	(11,545)	560,393
Investment securities gains, net	—	—	—	—	30,059	30,059
Non-interest expense	(293,504)	(329,313)	(136,356)	(759,173)	(46,728)	(805,901)
Income before income taxes	\$ 149,959	\$ 340,272	\$ 148,731	\$ 638,962	\$ 47,339	\$ 686,301
Year ended December 31, 2020:						
Net interest income	\$ 321,036	\$ 414,724	\$ 57,925	\$ 793,685	\$ 36,162	\$ 829,847
Provision for loan losses	(31,220)	(3,724)	12	(34,932)	(102,258)	(137,190)
Non-interest income	148,586	194,505	188,942	532,033	(26,166)	505,867
Investment securities gains, net	—	—	—	—	11,032	11,032
Non-interest expense	(297,790)	(316,004)	(124,964)	(738,758)	(29,620)	(768,378)
Income before income taxes	\$ 140,612	\$ 289,501	\$ 121,915	\$ 552,028	\$ (110,850)	\$ 441,178
Year ended December 31, 2019:						
Net interest income	\$ 315,778	\$ 343,233	\$ 47,863	\$ 706,874	\$ 114,419	\$ 821,293
Provision for loan losses	(44,987)	(4,204)	(174)	(49,365)	(1,073)	(50,438)
Non-interest income	135,257	203,952	180,836	520,045	4,658	524,703
Investment securities gains, net	—	—	—	—	3,626	3,626
Non-interest expense	(297,530)	(309,163)	(122,784)	(729,477)	(37,921)	(767,398)
Income before income taxes	\$ 108,518	\$ 233,818	\$ 105,741	\$ 448,077	\$ 83,709	\$ 531,786

The segment activity, as shown above, includes both direct and allocated items. Amounts in the “Other/Elimination” column include activity not related to the segments, such as that relating to administrative functions, the investment securities portfolio, and the effect of certain expense allocations to the segments. The provision for credit losses in this category contains the difference between net loan charge-offs assigned directly to the segments and the recorded provision for credit loss expense. Included in this category’s net interest income are earnings of the investment portfolio, which are not allocated to a segment.

Segment Balance Sheet Data

<i>(In thousands)</i>	Consumer	Commercial	Wealth	Segment Totals	Other/ Elimination	Consolidated Totals
Average balances for 2021:						
Assets	\$ 2,064,375	\$ 10,550,065	\$ 1,584,765	\$ 14,199,205	\$ 19,964,530	\$ 34,163,735
Loans, including held for sale	1,921,519	10,237,980	1,575,058	13,734,557	1,951,354	15,685,911
Goodwill and other intangible assets	80,448	67,832	746	149,026	—	149,026
Deposits	12,838,702	11,990,753	2,965,818	27,795,273	(11,157)	27,784,116
Average balances for 2020:						
Assets	\$ 2,238,607	\$ 10,937,391	\$ 1,406,416	\$ 14,582,414	\$ 15,034,283	\$ 29,616,697
Loans, including held for sale	2,099,784	10,565,800	1,395,766	14,061,350	1,854,183	15,915,533
Goodwill and other intangible assets	78,353	67,956	746	147,055	315	147,370
Deposits	11,282,164	9,937,985	2,271,166	23,491,315	6,162	23,497,477

The above segment balances include only those items directly associated with the segment. The “Other/Elimination” column includes unallocated bank balances not associated with a segment (such as investment securities and federal funds sold), balances relating to certain other administrative and corporate functions, and eliminations between segment and non-segment balances. This column also includes the resulting effect of allocating such items as float, deposit reserve and capital for the purpose of computing the cost or credit for funds used/provided.

The Company's reportable segments are strategic lines of business that offer different products and services. They are managed separately because each line services a specific customer need, requiring different performance measurement analyses and marketing strategies. The performance measurement of the segments is based on the management structure of the Company and is not necessarily comparable with similar information for any other financial institution. The information is also not necessarily indicative of the segments' financial condition and results of operations if they were independent entities.

14. Common and Preferred Stock*

On December 17, 2021, the Company distributed a 5% stock dividend on its \$5 par common stock for the 28th consecutive year. All per common share data in this report has been restated to reflect the stock dividend.

The Company applies the two-class method of computing income per share, as nonvested share-based awards that pay nonforfeitable common stock dividends are considered securities which participate in undistributed earnings with common stock. The two-class method requires the calculation of separate income per share amounts for the nonvested share-based awards and for common stock. Income per share attributable to common stock is shown in the following table. Nonvested share-based awards are further discussed in Note 11, Stock-Based Compensation.

Basic income per share is based on the weighted average number of common shares outstanding during the year. Diluted income per share gives effect to all dilutive potential common shares that were outstanding during the year. Presented below is a summary of the components used to calculate basic and diluted income per common share, which have been restated for all stock dividends.

<i>(In thousands, except per share data)</i>	2021	2020	2019
Basic income per common share:			
Net income attributable to Commerce Bancshares, Inc.	\$ 530,765	\$ 354,057	\$ 421,231
Less preferred stock dividends	—	11,966	9,000
Net income available to common shareholders	530,765	342,091	412,231
Less income allocated to nonvested restricted stock	4,846	3,215	4,019
Net income allocated to common stock	\$ 525,919	\$ 338,876	\$ 408,212
Weighted average common shares outstanding	121,656	122,177	125,446
Basic income per common share	\$ 4.32	\$ 2.77	\$ 3.25
Diluted income per common share:			
Net income available to common shareholders	\$ 530,765	\$ 342,091	\$ 412,231
Less income allocated to nonvested restricted stock	4,838	3,211	4,012
Net income allocated to common stock	\$ 525,927	\$ 338,880	\$ 408,219
Weighted average common shares outstanding	121,656	122,177	125,446
Net effect of the assumed exercise of stock-based awards - based on the treasury stock method using the average market price for the respective periods	285	236	312
Weighted average diluted common shares outstanding	121,941	122,413	125,758
Diluted income per common share	\$ 4.31	\$ 2.77	\$ 3.25

Unexercised stock appreciation rights of 88 thousand, 318 thousand and 392 thousand were excluded from the computation of diluted income per share for the years ended December 31, 2021, 2020 and 2019, respectively, because their inclusion would have been anti-dilutive.

On September 1, 2020, the Company redeemed all outstanding shares of its 6.00% Series B Non-Cumulative Perpetual Preferred Stock, \$1.00 par value per share, (Series B Preferred Stock) and the corresponding depositary shares representing fractional interests in the Series B Preferred Stock (Series B Depositary Shares). The 6,000,000 depositary shares, each representing a 1/1,000th interest in a share of Series B Preferred Stock, were redeemed simultaneously with the redemption of the Series B Preferred Stock at a redemption price of \$25 per depositary share. Regular dividends on the outstanding shares of the Series B Preferred Stock were paid separately on September 1, 2020 to all holders of record as of August 14, 2020, in the customary manner, and future dividends ceased to accrue. For the year ended December 31, 2020, preferred stock dividends totaled \$12.0 million, and included \$5.2 million related to the preferred stock redemption, which is the excess of the redemption costs over the book value of the preferred stock.

The Company entered into an accelerated share repurchase program in 2019 for \$150.0 million. Final settlement of the program occurred at the end of 2019, and a total of 2,432,336 shares of common stock were received by the Company under the

program. Shares purchased under this program were part of the Company's stock repurchase program, as authorized by its Board of Directors. The most recent authorization in November 2019 approved future purchases of 5,000,000 shares of the Company's common stock. At December 31, 2021, 1,737,322 shares of common stock remained available for purchase under the current authorization.

The table below shows activity in the outstanding shares of the Company's common stock during the past three years. Shares in the table below are presented on an historical basis and have not been restated for the annual 5% stock dividends.

<i>(In thousands)</i>	Years Ended December 31		
	2021	2020	2019
Shares outstanding at January 1	117,138	112,132	111,129
Issuance of stock:			
Awards and sales under employee and director plans	328	335	329
5% stock dividend	5,790	5,574	5,359
Other purchases of treasury stock	(1,807)	(887)	(4,670)
Other	(13)	(16)	(15)
Shares outstanding at December 31	121,436	117,138	112,132

* Except as noted in the above table, all share and per share amounts in this footnote have been restated for the 5% common stock dividend distributed in 2021.

15. Regulatory Capital Requirements

The Company is subject to various regulatory capital requirements administered by the federal banking agencies. Failure to meet minimum capital requirements can initiate certain mandatory and additional discretionary actions by regulators that could have a direct material effect on the Company's financial statements. The regulations require the Company to meet specific capital adequacy guidelines that involve quantitative measures of the Company's assets, liabilities and certain off-balance sheet items as calculated under regulatory accounting practices. The Company's capital classification is also subject to qualitative judgments by the regulators about components, risk weightings and other factors.

The following tables show the capital amounts and ratios for the Company (on a consolidated basis) and the Bank, together with the minimum capital adequacy and well-capitalized capital requirements, at the last two year ends.

	Actual		Minimum Capital Adequacy Requirement		Well-Capitalized Capital Requirement	
	Amount	Ratio	Amount	Ratio	Amount	Ratio
<i>(Dollars in thousands)</i>						
December 31, 2021						
Total Capital (to risk-weighted assets):						
Commerce Bancshares, Inc. (consolidated)	\$3,399,880	15.12%	\$1,798,700	8.00%	N.A.	N.A.
Commerce Bank	2,939,345	13.19	1,783,288	8.00	\$2,229,110	10.00%
Tier I Capital (to risk-weighted assets):						
Commerce Bancshares, Inc. (consolidated)	\$3,225,044	14.34%	\$1,349,025	6.00%	N.A.	N.A.
Commerce Bank	2,764,509	12.40	1,337,466	6.00	\$1,783,288	8.00%
Tier I Common Capital (to risk-weighted assets):						
Commerce Bancshares, Inc. (consolidated)	\$3,225,044	14.34%	\$1,011,769	4.50%	N.A.	N.A.
Commerce Bank	2,764,509	12.40	1,003,100	4.50	\$1,448,922	6.50%
Tier I Capital (to adjusted quarterly average assets):						
(Leverage Ratio)						
Commerce Bancshares, Inc. (consolidated)	\$3,225,044	9.13%	\$1,412,370	4.00%	N.A.	N.A.
Commerce Bank	2,764,509	7.86	1,406,785	4.00	\$1,758,482	5.00%
December 31, 2020						
Total Capital (to risk-weighted assets):						
Commerce Bancshares, Inc. (consolidated)	\$3,189,432	14.82%	\$1,721,317	8.00%	N.A.	N.A.
Commerce Bank	2,844,675	13.30	1,710,778	8.00	\$2,138,472	10.00%
Tier I Capital (to risk-weighted assets):						
Commerce Bancshares, Inc. (consolidated)	\$2,950,926	13.71%	\$1,290,988	6.00%	N.A.	N.A.
Commerce Bank	2,606,169	12.19	1,283,083	6.00	\$1,710,778	8.00%
Tier I Common Capital (to risk-weighted assets):						
Commerce Bancshares, Inc. (consolidated)	\$2,950,926	13.71%	\$968,241	4.50%	N.A.	N.A.
Commerce Bank	2,606,169	12.19	962,312	4.50	\$1,390,007	6.50%
Tier I Capital (to adjusted quarterly average assets):						
(Leverage Ratio)						
Commerce Bancshares, Inc. (consolidated)	\$2,950,926	9.45%	\$1,249,584	4.00%	N.A.	N.A.
Commerce Bank	2,606,169	8.36	1,246,470	4.00	\$1,558,087	5.00%

The minimum required ratios for well-capitalized banks (under prompt corrective action provisions) are 6.5% for Tier I common capital, 8.0% for Tier I capital, 10.0% for Total capital and 5.0% for the leverage ratio.

At December 31, 2021 and 2020, the Company met all capital requirements to which it is subject, and the Bank's capital position exceeded the regulatory definition of well-capitalized.

16. Revenue from Contracts with Customers

The core principle of ASU 2014-09 Revenue from Contracts with Customers is that an entity should recognize revenue to reflect the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. For the year ended December 31, 2021, approximately 60% of the Company's total revenue was comprised of net interest income, which is not within the scope of this guidance. Of the remaining revenue, those items that were subject to this guidance mainly included fees for bank card, trust, deposit account services and consumer brokerage services.

The following table disaggregates non-interest income subject to ASU 2014-09 by major product line.

<i>(In thousands)</i>	For the Years Ended December 31		
	2021	2020	2019
Bank card transaction fees	\$ 167,891	\$ 151,797	\$ 167,879
Trust fees	188,227	160,637	155,628
Deposit account charges and other fees	97,217	93,227	95,983
Consumer brokerage services	18,362	15,095	15,804
Other non-interest income	27,223	31,040	48,597
Total non-interest income from contracts with customers	498,920	451,796	483,891
Other non-interest income ⁽¹⁾	61,473	54,071	40,812
Total non-interest income	\$ 560,393	\$ 505,867	\$ 524,703

(1) This revenue is not within the scope of ASU 2014-09, and includes fees relating to capital market activities, loan fees and sales, derivative instruments, standby letters of credit and various other transactions.

The following table presents the opening and closing receivable balances for the years ended December 31, 2021 and 2020 for the Company's significant revenue categories subject to ASU 2014-09.

<i>(In thousands)</i>	December 31, 2021	December 31, 2020	December 31, 2019
Bank card transaction fees	\$ 16,424	\$ 14,199	\$ 13,915
Trust fees	2,222	2,071	2,093
Deposit account charges and other fees	6,702	6,933	6,523
Consumer brokerage services	391	432	596

For these revenue categories, none of the transaction price has been allocated to performance obligations that are unsatisfied as of the end of a reporting period. A description of these revenue categories follows.

Bank Card Transaction Fees

The following table presents the components of bank card fee income.

<i>(In thousands)</i>	For the Years Ended December 31		
	2021	2020	2019
Debit card:			
Fee income	\$ 44,170	\$ 39,862	\$ 42,106
Expense for network charges	(3,160)	(2,218)	(2,081)
Net debit card fees	41,010	37,644	40,025
Credit card:			
Fee income	29,214	24,921	27,416
Expense for network charges and rewards	(14,070)	(11,528)	(13,239)
Net credit card fees	15,144	13,393	14,177
Corporate card:			
Fee income	197,483	179,251	196,984
Expense for network charges and rewards	(105,782)	(96,877)	(102,596)
Net corporate card fees	91,701	82,374	94,388
Merchant:			
Fee income	33,019	29,660	31,517
Fees to cardholder banks	(9,640)	(8,115)	(8,779)
Expense for network charges	(3,343)	(3,159)	(3,449)
Net merchant fees	20,036	18,386	19,289
Total bank card transaction fees	\$ 167,891	\$ 151,797	\$ 167,879

The majority of debit and credit card fees are reported in the Consumer segment, while corporate card and merchant fees are reported in the Commercial segment.

Debit and Credit Card Fees

The Company issues debit and credit cards to its retail and commercial banking customers who use the cards to purchase goods and services from merchants through an electronic payment system. As a card issuer, the Company earns fees, including interchange income, for processing the cardholder's purchase transaction with a merchant through a settlement network. Purchases are charged directly to a customer's checking account (in the case of a debit card), or are posted to a customer's credit card account. The fees earned are established by the settlement network and are dependent on the type of transaction processed but are typically based on a per unit charge. Interchange income, the largest component of debit and credit card fees, is settled daily through the networks. The services provided to the cardholders include issuing and maintaining cards, settling purchases with merchants, and maintaining memberships in various card networks to facilitate processing. These services are considered one performance obligation, as one of the services would not be performed without the others. The performance obligation is satisfied as services are rendered for each purchase transaction, and income is immediately recognized.

In order to participate in the settlement network process, the Company must pay various transaction-related costs, established by the networks, including membership fees and a per unit charge for each transaction. These expenses are recorded net of the card fees earned.

Consumer credit card products offer cardholders rewards that can be later redeemed for cash, goods or services to encourage card usage. Reward programs must meet network requirements based on the type of card issued. The expense associated with the rewards granted are recorded net of the credit card fees earned.

Commercial card products offer cash rewards to corporate cardholders to encourage card usage in facilitating corporate payments. The Company pays cash rewards based on contractually agreed upon amounts, normally as a percent of each sales transaction. The expense associated with the cash rewards program is recorded net of the corporate card fees earned.

Merchant Fees

The Company offers merchant processing services to its business customers to enable them to accept credit and debit card payments. Merchant processing activities include gathering merchant sales information, authorizing sales transactions and collecting the funds from card issuers using the networks. The merchant is charged a merchant discount fee for the services based on agreed upon pricing between the merchant and the Company. Merchant fees are recorded net of outgoing interchange costs paid to the card issuing banks and net of other network costs as shown in the table above.

Merchant services provided are considered one performance obligation, as one of the services would not be performed without the others. The performance obligation is satisfied as services are rendered for each settlement transaction and income is immediately recognized. Income earned from merchant fees settles with the customer according to terms negotiated in individual customer contracts. The majority of customers settle with the Company at least monthly.

Trust Fees

The following table shows the components of revenue within trust fees, which are reported within the Wealth segment.

<i>(In thousands)</i>	For the Years Ended December 31		
	2021	2020	2019
Private client	\$ 147,653	\$ 123,941	\$ 118,832
Institutional	33,890	30,544	29,468
Other	6,684	6,152	7,328
Total trust fees	\$ 188,227	\$ 160,637	\$ 155,628

The Company provides trust and asset management services to both private client and institutional trust customers including asset custody, investment advice, and reporting and administrative services. Other specialized services such as tax preparation, financial planning, representation and other related services are provided as needed. Trust fees are generally earned monthly and billed based on a rate multiplied by the fair value of the customer's trust assets. The majority of customer trust accounts are billed monthly. However, some accounts are billed quarterly, and a small number of accounts are billed semi-annually or annually, in accordance with agreements in place with the customer. The Company accrues trust fees monthly based on an estimate of fees due and either directly charges the customer's account the following month or invoices the customer for fees due according to the billing schedule.

The Company maintains written product pricing information which is used to bill each trust customer based on the services provided. Providing trust services is considered to be a single performance obligation that is satisfied on a monthly basis, involving the monthly custody of customer assets, statement rendering, periodic investment advice where applicable, and other specialized services as needed. As such, performance obligations are considered to be satisfied at the conclusion of each month while trust fee income is also recognized monthly.

Deposit Account Charges and Other Fees

The following table shows the components of revenue within deposit account charges and other fees.

<i>(In thousands)</i>	For the Years Ended December 31		
	2021	2020	2019
Corporate cash management fees	\$ 50,051	\$ 46,762	\$ 41,442
Overdraft and return item fees	24,157	22,951	30,596
Other service charges on deposit accounts	23,009	23,514	23,945
Total deposit account charges and other fees	\$ 97,217	\$ 93,227	\$ 95,983

Approximately half of this revenue is reported in the Consumer segment, while the remainder is reported in the Commercial segment.

The Company provides corporate cash management services to its business and non-profit customers to meet their various transaction processing needs. Such services include deposit and check processing, lockbox, remote deposit, reconciliation, online banking and other similar transaction processing services. The Company maintains unit prices for each type of service, and the customer is billed based on transaction volumes processed monthly. The customer is usually billed either monthly or

quarterly, however, some customers may be billed semi-annually or annually. The customer may pay for the cash management services either by paying in cash or using the value of deposit balances (formula provided to the customer) held at the Company. The Company's performance obligation for corporate cash management services is the processing of items over a monthly term, and the obligations are satisfied at the conclusion of each month.

Overdraft fees are charged to customers when daily checks and other withdrawals to customers' accounts exceed balances on hand. Fees are based on a unit price multiplied by the number of items processed whose total amounts exceed the available account balance. The daily overdraft charge is calculated and the fee is posted to the customer's account each day. The Company's performance obligation for overdraft transactions is based on the daily transaction processed and the obligation is satisfied as each day's transaction processing is concluded.

Other deposit fees include numerous smaller fees such as monthly statement fees, foreign ATM processing fees, identification restoration fees, and stop payment fees. Such fees are mostly billed to customers directly on their monthly deposit account statements, or in the case of foreign ATM processing fees, the fee is charged to the customer on the day that transactions are processed. Performance obligations for all of these various services are satisfied at the time that the service is rendered.

Consumer Brokerage Services

The following shows the components of revenue within consumer brokerage services, and nearly all of this revenue is reported in the Company's Wealth segment.

<i>(In thousands)</i>	For the Years Ended December 31		
	2021	2020	2019
Commission income	\$ 9,328	\$ 8,002	\$ 9,071
Managed account services	9,034	7,093	6,733
Total consumer brokerage services	\$ 18,362	\$ 15,095	\$ 15,804

Consumer brokerage services revenue is comprised of commissions received upon the execution of purchases and sales of mutual fund shares and equity securities, in addition to sales of annuities and certain limited insurance products in an agency capacity. Also, fees are earned on professionally managed advisory programs through arrangements with sub-advisors. Payment from the customer is due upon settlement date for purchases and sales of securities, at the purchase date for annuities and insurance products, and upon inception of the service period for advisory programs.

Most of the contracts (except advisory contracts) encompass two types of performance obligations. The first is an obligation to provide account maintenance, record keeping and custodial services throughout the contract term. The second is the obligation to provide trade execution services for the customers' purchases and sales of products mentioned above. The first obligation is satisfied over time as the service period elapses, while the second type of obligation is satisfied upon the execution of each purchase/sale transaction. Contracts for advisory services contain a single performance obligation comprised of providing the management services and related reporting/administrative services over the contract term.

The transaction price of the contracts (except advisory contracts) is a commission charged at the time of trade execution. The commission varies across different security types, insurance products and mutual funds. It is generally determined by standardized price lists published by the Company and its mutual fund and insurance vendors. Because the transaction price relates specifically to the trade execution, it has been allocated to that performance obligation and is recorded at the time of execution. The fee for advisory services is charged to the customer in advance of the quarterly service period, based on the account balance at the beginning of the period. Revenue is recognized ratably over the service period.

Other Non-Interest Income from Contracts with Customers

Other non-interest income from contracts with customers consists mainly of various customer deposit related fees such as ATM fees and gains on sales of tax credits, foreclosed assets, and bank premises and equipment. Performance obligations for these services consist mainly of the execution of transactions for sales of various properties or providing specific deposit related transactions. Fees from these revenue sources are recognized when the performance obligation is completed, at which time cash is received by the Company.

17. Fair Value Measurements

The Company uses fair value measurements to record fair value adjustments to certain financial and nonfinancial assets and liabilities and to determine fair value disclosures. Various financial instruments such as available for sale debt securities, equity securities, trading debt securities, certain investments relating to private equity activities, and derivatives are recorded at fair value on a recurring basis. Additionally, from time to time, the Company may be required to record other assets and liabilities at fair value on a nonrecurring basis, such as mortgage servicing rights and certain other investment securities. These nonrecurring fair value adjustments typically involve lower of cost or fair value accounting, or write-downs of individual assets.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Depending on the nature of the asset or liability, the Company uses various valuation techniques and assumptions when estimating fair value. For accounting disclosure purposes, a three-level valuation hierarchy of fair value measurements has been established. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are defined as follows:

- Level 1 – inputs to the valuation methodology are quoted prices for identical assets or liabilities in active markets.
- Level 2 – inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, and inputs that are observable for the assets or liabilities, either directly or indirectly (such as interest rates, yield curves, and prepayment speeds).
- Level 3 – inputs to the valuation methodology are unobservable and significant to the fair value. These may be internally developed, using the Company's best information and assumptions that a market participant would consider.

When determining the fair value measurements for assets and liabilities required or permitted to be recorded or disclosed at fair value, the Company considers the principal or most advantageous market in which it would transact and considers assumptions that market participants would use when pricing the asset or liability. When possible, the Company looks to active and observable markets to price identical assets or liabilities. When identical assets and liabilities are not traded in active markets, the Company looks to observable market data for similar assets and liabilities. Nevertheless, certain assets and liabilities are not actively traded in observable markets, and the Company must use alternative valuation techniques to derive an estimated fair value measurement.

Instruments Measured at Fair Value on a Recurring Basis

The table below presents the carrying values of assets and liabilities measured at fair value on a recurring basis at December 31, 2021 and 2020. There were no transfers among levels during these years.

<i>(In thousands)</i>	Total Fair Value	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2021				
Assets:				
Residential mortgage loans held for sale	\$ 5,570	\$ —	\$ 5,570	\$ —
Available for sale debt securities:				
U.S. government and federal agency obligations	1,080,720	1,080,720	—	—
Government-sponsored enterprise obligations	51,755	—	51,755	—
State and municipal obligations	2,096,827	—	2,094,843	1,984
Agency mortgage-backed securities	5,683,000	—	5,683,000	—
Non-agency mortgage-backed securities	1,366,477	—	1,366,477	—
Asset-backed securities	3,539,219	—	3,539,219	—
Other debt securities	632,029	—	632,029	—
Trading debt securities	46,235	—	46,235	—
Equity securities	7,153	7,153	—	—
Private equity investments	147,406	—	—	147,406
Derivatives *	41,842	—	40,994	848
Assets held in trust for deferred compensation plan	21,794	21,794	—	—
Total assets	14,720,027	1,109,667	13,460,122	150,238
Liabilities:				
Derivatives *	12,101	—	11,824	277
Liabilities held in trust for deferred compensation plan	21,794	21,794	—	—
Total liabilities	\$ 33,895	\$ 21,794	\$ 11,824	\$ 277
December 31, 2020				
Assets:				
Residential mortgage loans held for sale	\$ 39,396	\$ —	\$ 39,396	\$ —
Available for sale debt securities:				
U.S. government and federal agency obligations	838,059	838,059	—	—
Government-sponsored enterprise obligations	54,485	—	54,485	—
State and municipal obligations	2,045,099	—	2,037,131	7,968
Agency mortgage-backed securities	6,712,085	—	6,712,085	—
Non-agency mortgage-backed securities	361,074	—	361,074	—
Asset-backed securities	1,882,243	—	1,882,243	—
Other debt securities	556,219	—	556,219	—
Trading debt securities	35,321	—	35,321	—
Equity securities	2,966	2,966	—	—
Private equity investments	94,368	—	—	94,368
Derivatives *	89,889	—	86,447	3,442
Assets held in trust for deferred compensation plan	19,278	19,278	—	—
Total assets	12,730,482	860,303	11,764,401	105,778
Liabilities:				
Derivatives *	18,675	—	17,974	701
Liabilities held in trust for deferred compensation plan	19,278	19,278	—	—
Total liabilities	\$ 37,953	\$ 19,278	\$ 17,974	\$ 701

*The fair value of each class of derivative is shown in Note 19.

Valuation methods for instruments measured at fair value on a recurring basis

Following is a description of the Company's valuation methodologies used for instruments measured at fair value on a recurring basis:

Residential mortgage loans held for sale

The Company originates fixed rate, first lien residential mortgage loans that are intended for sale in the secondary market. Fair value is based on quoted secondary market prices for loans with similar characteristics, which are adjusted to include the embedded servicing value in the loans. This adjustment represents an unobservable input to the valuation but is not considered significant given the relative insensitivity of the valuation to changes in this input. Accordingly, these loan measurements are classified as Level 2.

Available for sale debt securities

For available for sale securities, changes in fair value are recorded in other comprehensive income. This portfolio comprises the majority of the assets which the Company records at fair value. Most of the portfolio, which includes government-sponsored enterprise, mortgage-backed and asset-backed securities, are priced utilizing industry-standard models that consider various assumptions, including time value, yield curves, volatility factors, prepayment speeds, default rates, loss severity, current market and contractual prices for the underlying financial instruments, as well as other relevant economic measures. Substantially all of these assumptions are observable in the marketplace, can be derived from observable data, or are supported by observable levels at which transactions are executed in the marketplace. These measurements are classified as Level 2 in the fair value hierarchy. Where quoted prices are available in an active market, the measurements are classified as Level 1. Most of the Level 1 measurements apply to U.S. Treasury obligations.

The fair values of Level 1 and 2 securities in the available for sale portfolio are prices provided by a third-party pricing service. The prices provided by the third-party pricing service are based on observable market inputs, as described in the sections below. On a quarterly basis, the Company compares a sample of these prices to other independent sources for the same and similar securities. Variances are analyzed, and, if appropriate, additional research is conducted with the third-party pricing service. Based on this research, the pricing service may affirm or revise its quoted price. No significant adjustments have been made to the prices provided by the pricing service. The pricing service also provides documentation on an ongoing basis that includes reference data, inputs and methodology by asset class, which is reviewed by the Company to ensure that security placement within the fair value hierarchy is appropriate.

Valuation methods and inputs, by class of security:

- ***U.S. government and federal agency obligations***

U.S. treasury bills, bonds and notes, including inflation-protected securities, are valued using live data from active market makers and inter-dealer brokers. Valuations for stripped coupon and principal issues are derived from yield curves generated from various dealer contacts and live data sources.

- ***Government-sponsored enterprise obligations***

Government-sponsored enterprise obligations are evaluated using cash flow valuation models. Inputs used are live market data, cash settlements, Treasury market yields, and floating rate indices such as LIBOR, CMT, and Prime.

- ***State and municipal obligations, excluding auction rate securities***

A yield curve is generated and applied to bond sectors, and individual bond valuations are extrapolated. Inputs used to generate the yield curve are bellwether issue levels, established trading spreads between similar issuers or credits, historical trading spreads over widely accepted market benchmarks, new issue scales, and verified bid information. Bid information is verified by corroborating the data against external sources such as broker-dealers, trustees/paying agents, issuers, or non-affiliated bondholders.

- ***Mortgage and asset-backed securities***

Collateralized mortgage obligations and other asset-backed securities are valued at the tranche level. For each tranche valuation, the process generates predicted cash flows for the tranche, applies a market based (or benchmark) yield/spread for each tranche, and incorporates deal collateral performance and tranche level attributes to determine tranche-specific spreads to adjust the benchmark yield. Tranche cash flows are generated from new deal files and prepayment/default assumptions. Tranche spreads are based on tranche characteristics such as average life, type, volatility, ratings, underlying collateral and performance, and prevailing market conditions. The appropriate tranche spread is applied to the corresponding benchmark, and the resulting value is used to discount the cash flows to generate an evaluated price.

Valuation of agency pass-through securities, typically issued under GNMA, FNMA, FHLMC, and SBA programs, are primarily derived from information from the to-be-announced (TBA) market. This market consists of generic mortgage pools which have not been received for settlement. Snapshots of the TBA market, using live data feeds distributed by multiple electronic platforms, are used in conjunction with other indices to compute a price based on discounted cash flow models.

- *Other debt securities*

Other debt securities are valued using active markets and inter-dealer brokers as well as bullet spread scales and option adjusted spreads. The spreads and models use yield curves, terms and conditions of the bonds, and any special features (e.g., call or put options and redemption features).

- *Auction rate securities*

The available for sale portfolio includes certain auction rate securities. Due to the illiquidity in the auction rate securities market in recent years, the fair value of these securities cannot be based on observable market prices. The fair values of these securities are estimated using a discounted cash flows analysis which is discussed more fully in the Level 3 Inputs section of this note. Because many of the inputs significant to the measurement are not observable, these measurements are classified as Level 3 measurements.

Trading debt securities

The securities in the Company's trading portfolio are priced by averaging several broker quotes for similar instruments and are classified as Level 2 measurements.

Equity securities with readily determinable fair values

Equity securities are priced using the market prices for each security from the major stock exchanges or other electronic quotation systems. These are generally classified as Level 1 measurements. Stocks which trade infrequently are classified as Level 2.

Private equity investments

These securities are held by the Company's private equity subsidiary and are included in other investment securities in the consolidated balance sheets. Due to the absence of quoted market prices, valuation of these nonpublic investments requires significant management judgment. These fair value measurements, which are discussed in the Level 3 Inputs section of this note, are classified as Level 3.

Derivatives

The Company's derivative instruments include interest rate swaps, foreign exchange forward contracts, and certain credit risk guarantee agreements. When appropriate, the impact of credit standing as well as any potential credit enhancements, such as collateral, has been considered in the fair value measurement.

- Valuations for interest rate swaps are derived from a proprietary model whose significant inputs are readily observable market parameters, primarily yield curves used to calculate current exposure. Counterparty credit risk is incorporated into the model and calculated by applying a net credit spread over LIBOR to the swap's total expected exposure over time. The net credit spread is comprised of spreads for both the Company and its counterparty, derived from probability of default and other loss estimate information obtained from a third party credit data provider or from the Company's Credit Department when not otherwise available. The credit risk component is not significant compared to the overall fair value of the swaps. The results of the model are constantly validated through comparison to active trading in the marketplace.

Parties to swaps requiring central clearing are required to post collateral (generally in the form of cash or marketable securities) to an authorized clearing agency that holds and monitors the collateral. The Company's clearing counterparty characterizes a component of this collateral, known as variation margin, as a legal settlement of the derivative contract exposure, and as a result, the variation margin is considered in determining the fair value of the derivative.

The fair value measurements of interest rate swaps are classified as Level 2 due to the observable nature of the significant inputs utilized.

- Fair value measurements for foreign exchange contracts are derived from a model whose primary inputs are quotations from global market makers and are classified as Level 2.

- The Company's contracts related to credit risk guarantees are valued under a proprietary model which uses unobservable inputs and assumptions about the creditworthiness of the counterparty (generally a Bank customer). Customer credit spreads, which are based on probability of default and other loss estimates, are calculated internally by the Company's Credit Department, as mentioned above, and are based on the Company's internal risk rating for each customer. Because these inputs are significant to the measurements, they are classified as Level 3.
- Derivatives relating to residential mortgage loan sale activity include commitments to originate mortgage loans held for sale, forward loan sale contracts, and forward commitments to sell TBA securities. The fair values of loan commitments and sale contracts are estimated using quoted market prices for loans similar to the underlying loans in these instruments. The valuations of loan commitments are further adjusted to include embedded servicing value and the probability of funding. These assumptions are considered Level 3 inputs and are significant to the loan commitment valuation; accordingly, the measurement of loan commitments is classified as Level 3. The fair value measurement of TBA contracts is based on security prices published on trading platforms and is classified as Level 2.

Assets held in trust for deferred compensation plan

Assets held in an outside trust for the Company's deferred compensation plan consist of investments in mutual funds. The fair value measurements are based on quoted prices in active markets and classified as Level 1. The Company has recorded an asset representing the total investment amount. The Company has also recorded a corresponding liability, representing the Company's liability to the plan participants.

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis are summarized as follows:

<i>(In thousands)</i>	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)			
	State and Municipal Obligations	Private Equity Investments	Derivatives	Total
Year ended December 31, 2021:				
Balance at January 1, 2021	\$ 7,968	\$ 94,368	\$ 2,741	\$ 105,077
Total gains or losses (realized/unrealized):				
Included in earnings	—	36,344	(2,650)	33,694
Included in other comprehensive income	(170)	—	—	(170)
Investment securities called	(6,000)	—	—	(6,000)
Discount accretion	186	—	—	186
Purchases of private equity securities	—	31,449	—	31,449
Sale / pay down of private equity securities	—	(16,523)	—	(16,523)
Capitalized interest/dividends	—	1,768	—	1,768
Purchase of risk participation agreement	—	—	685	685
Sale of risk participation agreement	—	—	(205)	(205)
Balance at December 31, 2021	\$ 1,984	\$ 147,406	\$ 571	\$ 149,961
Total gains or losses for the year included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2021	\$ —	\$ 28,654	\$ 475	\$ 29,129
Total gains or losses for the year included in other comprehensive income attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2021	\$ 11	\$ —	\$ —	\$ 11
Year ended December 31, 2020:				
Balance at January 1, 2020	\$ 9,853	\$ 94,122	\$ 369	\$ 104,344
Total gains or losses (realized/unrealized):				
Included in earnings	—	(10,103)	3,181	(6,922)
Included in other comprehensive income	(2)	—	—	(2)
Investment securities called	(2,000)	—	—	(2,000)
Discount accretion	117	—	—	117
Purchases of private equity securities	—	10,684	—	10,684
Sale / pay down of private equity securities	—	(364)	—	(364)
Capitalized interest/dividends	—	29	—	29
Sale of risk participation agreement	—	—	(809)	(809)
Balance at December 31, 2020	\$ 7,968	\$ 94,368	\$ 2,741	\$ 105,077
Total gains or losses for the year included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2020	\$ —	\$ (10,083)	\$ 3,611	\$ (6,472)
Total gains or losses for the year included in other comprehensive income attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2020	\$ 44	\$ —	\$ —	\$ 44

Gains and losses on the Level 3 assets and liabilities in the table above are reported in the following income categories:

<i>(In thousands)</i>	Loan Fees and Sales	Other Non-Interest Income	Investment Securities Gains (Losses), Net	Total
Year ended December 31, 2021:				
Total gains or losses included in earnings	\$ (2,463)	\$ (187)	\$ 36,344	\$ 33,694
Change in unrealized gains or losses relating to assets still held at December 31, 2021	\$ 764	\$ (289)	\$ 28,654	\$ 29,129
Year ended December 31, 2020:				
Total gains or losses included in earnings	\$ 2,768	\$ 413	\$ (10,103)	\$ (6,922)
Change in unrealized gains or losses relating to assets still held at December 31, 2020	\$ 3,226	\$ 385	\$ (10,083)	\$ (6,472)

Level 3 Inputs

As shown above, the Company's significant Level 3 measurements which employ unobservable inputs that are readily quantifiable pertain to auction rate securities (ARS) held by the Bank, investments in portfolio concerns held by the Company's private equity subsidiary, and held for sale residential mortgage loan commitments. ARS are included in state and municipal securities and totaled \$2.0 million at December 31, 2021, while private equity investments, included in other securities, totaled \$147.4 million.

Information about these inputs is presented in the table and discussions below.

Quantitative Information about Level 3 Fair Value Measurements				Weighted
	Valuation Technique	Unobservable Input	Range	Average*
Auction rate securities	Discounted cash flow	Estimated market recovery period	5 years	5 years
		Estimated market rate	1.2% - 1.6%	1.4%
Private equity investments	Market comparable companies	EBITDA multiple	4.0 - 6.0	5.4
Mortgage loan commitments	Discounted cash flow	Probability of funding	69.1% - 100.0%	85.9%
		Embedded servicing value	0.6% - 1.1%	1.0%

* Unobservable inputs were weighted by the relative fair value of the instruments.

The fair values of ARS are estimated using a discounted cash flows analysis in which estimated cash flows are based on mandatory interest rates paid under failing auctions and projected over an estimated market recovery period. Under normal conditions, ARS traded in weekly auctions and were considered liquid investments. The Company's estimate of when these auctions might resume is highly judgmental and subject to variation depending on current and projected market conditions. Few auctions of these securities have been successful in recent years, and most secondary transactions have been privately arranged. Estimated cash flows during the period over which the Company expects to hold the securities are discounted at an estimated market rate. These securities are comprised of bonds issued by various states and municipalities for healthcare and student lending purposes, and market rates are derived for each type. Market rates are calculated at each valuation date using a LIBOR or Treasury based rate plus spreads representing adjustments for liquidity premium and nonperformance risk. The spreads are developed internally by employees in the Company's bond department. An increase in the holding period alone would result in a higher fair value measurement, while an increase in the estimated market rate (the discount rate) alone would result in a lower fair value measurement. The valuation of the ARS portfolio is reviewed on a quarterly basis by the Company's chief investment officers.

The fair values of the Company's private equity investments are based on a determination of fair value of the investee company less preference payments assuming the sale of the investee company. Investee companies are normally non-public entities. The fair value of the investee company is determined by reference to the investee's total earnings before interest, depreciation/amortization, and income taxes (EBITDA) multiplied by an EBITDA factor. EBITDA is normally determined based on a trailing prior period adjusted for specific factors including current economic outlook, investee management, and specific unique circumstances such as sales order information, major customer status, regulatory changes, etc. The EBITDA multiple is based on management's review of published trading multiples for recent private equity transactions and other judgments and is derived for each individual investee. The fair value of the Company's investment is then calculated based on its ownership percentage in the investee company. On a quarterly basis, these fair value analyses are reviewed by a valuation committee consisting of investment managers and senior Company management.

The significant unobservable inputs used in the fair value measurement of the Company's derivative commitments to originate residential mortgage loans are the percentage of commitments that are actually funded and the mortgage servicing value that is inherent in the underlying loan value. A significant increase in the rate of loans that fund would result in a larger derivative asset or liability. A significant increase in the inherent mortgage servicing value would result in an increase in the derivative asset or a reduction in the derivative liability. The probability of funding and the inherent mortgage servicing values are directly impacted by changes in market rates and will generally move in the same direction as interest rates.

Instruments Measured at Fair Value on a Nonrecurring Basis

For assets measured at fair value on a nonrecurring basis during 2021 and 2020, and still held as of December 31, 2021 and 2020, the following table provides the adjustments to fair value recognized during the respective periods, the level of valuation assumptions used to determine each adjustment, and the carrying value of the related individual assets or portfolios at December 31, 2021 and 2020.

<i>(In thousands)</i>	Fair Value	Fair Value Measurements Using			Total Gains (Losses)
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Balance at December 31, 2021					
Collateral dependent loans	\$ 1,664	\$ —	\$ —	\$ 1,664	\$ (213)
Mortgage servicing rights	10,966	—	—	10,966	1,799
Long-lived assets	1,018	—	—	1,018	(1,101)
Balance at December 31, 2020					
Collateral dependent loans	\$ 12,961	\$ —	\$ —	\$ 12,961	\$ (7,763)
Mortgage servicing rights	6,249	—	—	6,249	(1,776)
Long-lived assets	811	—	—	811	(9)

The Company's significant Level 3 measurements that are measured on a nonrecurring basis pertain to the Company's mortgage servicing rights retained on certain fixed rate personal real estate loan originations. Mortgage servicing rights are included in other intangible assets on the consolidated balance sheets, and information about these inputs is presented in the table below.

Quantitative Information about Level 3 Fair Value Measurements				Weighted	
	Valuation Technique	Unobservable Input	Range	Average*	
Mortgage servicing rights	Discounted cash flow	Discount rate	9.02 % - 9.35 %	9.13 %	
		Prepayment speeds (CPR)*	10.05 % - 13.36 %	11.32 %	
		Loan servicing costs - annually per loan			
		Performing loans	\$ 70 - \$ 72	\$ 71	
		Delinquent loans	\$ 200 - \$ 750		
		Loans in foreclosure	\$1,000		

*Ranges and weighted averages based on interest rate tranches.

The significant unobservable inputs used in the fair value measurement of the Company's mortgage servicing rights are updated periodically for changes in market conditions. Actual rates may differ from our estimates. Increases in prepayment speed and discount rates negatively impact the fair value of our mortgage servicing rights.

Valuation methods for instruments measured at fair value on a nonrecurring basis

Following is a description of the Company's valuation methodologies used for other financial and nonfinancial instruments measured at fair value on a nonrecurring basis.

Collateral dependent loans

While the overall loan portfolio is not carried at fair value, the Company periodically records nonrecurring adjustments to the carrying value of loans based on fair value measurements for partial charge-offs of the uncollectible portions of those loans.

Nonrecurring adjustments also include certain impairment amounts for collateral dependent loans when establishing the allowance for credit losses on loans. Such amounts are generally based on the fair value of the underlying collateral supporting the loan. In determining the value of real estate collateral, the Company relies on external and internal appraisals of property values depending on the size and complexity of the real estate collateral. The Company maintains a staff of qualified appraisers who also review third party appraisal reports for reasonableness. In the case of non-real estate collateral, reliance is placed on a variety of sources, including external estimates of value and judgments based on the experience and expertise of internal specialists. Values of all loan collateral are regularly reviewed by credit administration. Unobservable inputs to these measurements, which include estimates and judgments often used in conjunction with appraisals, are not readily quantifiable. These measurements are classified as Level 3. Nonrecurring adjustments to the carrying value of loans based on fair value measurements at December 31, 2021 and 2020 are shown in the table above.

Mortgage servicing rights

The Company initially measures its mortgage servicing rights at fair value and amortizes them over the period of estimated net servicing income. They are periodically assessed for impairment based on fair value at the reporting date. Mortgage servicing rights do not trade in an active market with readily observable prices. Accordingly, the fair value is estimated based on a valuation model which calculates the present value of estimated future net servicing income. The model incorporates assumptions that market participants use in estimating future net servicing income, including estimates of prepayment speeds, market discount rates, cost to service, float earnings rates, and other ancillary income, including late fees. The fair value measurements are classified as Level 3.

Long-lived assets

When investments in branch facilities and various office buildings are determined to be impaired, their carrying values are written down to estimated fair value, or estimated fair value less cost to sell if the property is held for sale. Fair value is estimated in a process which considers current local commercial real estate market conditions and the judgment of the sales agent and often involves obtaining third party appraisals from certified real estate appraisers. The carrying amounts of these real estate holdings are regularly monitored by real estate professionals employed by the Company. These fair value measurements are classified as Level 3. Unobservable inputs to these measurements, which include estimates and judgments often used in conjunction with appraisals, are not readily quantifiable.

18. Fair Value of Financial Instruments

The carrying amounts and estimated fair values of financial instruments held by the Company are set forth below. Fair value estimates are made at a specific point in time based on relevant market information. They do not reflect any premium or discount that could result from offering for sale at one time the Company's entire holdings of a particular financial instrument. Because no market exists for many of the Company's financial instruments, fair value estimates are based on judgments regarding future expected loss experience, risk characteristics and economic conditions. These estimates are subjective, involve uncertainties, and cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

The estimated fair values of the Company's financial instruments and the classification of their fair value measurement within the valuation hierarchy are as follows at December 31, 2021 and 2020:

<i>(In thousands)</i>	Carrying Amount	Estimated Fair Value at December 31, 2021			
		Level 1	Level 2	Level 3	Total
Financial Assets					
Loans:					
Business	\$ 5,303,535	\$ —	\$ —	\$ 5,229,153	\$ 5,229,153
Real estate - construction and land	1,118,266	—	—	1,099,747	1,099,747
Real estate - business	3,058,837	—	—	3,054,481	3,054,481
Real estate - personal	2,805,401	—	—	2,809,490	2,809,490
Consumer	2,032,225	—	—	2,031,408	2,031,408
Revolving home equity	275,945	—	—	273,450	273,450
Consumer credit card	575,410	—	—	536,468	536,468
Overdrafts	6,740	—	—	6,458	6,458
Total loans	15,176,359	—	—	15,040,655	15,040,655
Loans held for sale	8,615	—	8,615	—	8,615
Investment securities	14,695,628	1,087,873	13,413,558	194,197	14,695,628
Federal funds sold	2,800	2,800	—	—	2,800
Securities purchased under agreements to resell	1,625,000	—	—	1,623,856	1,623,856
Interest earning deposits with banks	3,971,217	3,971,217	—	—	3,971,217
Cash and due from banks	305,539	305,539	—	—	305,539
Derivative instruments	41,842	—	40,994	848	41,842
Assets held in trust for deferred compensation plan	21,794	21,794	—	—	21,794
Total	\$ 35,848,794	\$ 5,389,223	\$ 13,463,167	\$ 16,859,556	\$ 35,711,946
Financial Liabilities					
Non-interest bearing deposits	\$ 11,772,374	\$ 11,772,374	\$ —	\$ —	\$ 11,772,374
Savings, interest checking and money market deposits	16,598,085	16,598,085	—	—	16,598,085
Certificates of deposit	1,442,614	—	—	1,438,919	1,438,919
Federal funds purchased	43,385	43,385	—	—	43,385
Securities sold under agreements to repurchase	2,979,582	—	—	2,979,677	2,979,677
Other borrowings	12,514	—	12,514	—	12,514
Derivative instruments	12,101	—	11,824	277	12,101
Liabilities held in trust for deferred compensation plan	21,794	21,794	—	—	21,794
Total	\$ 32,882,449	\$ 28,435,638	\$ 24,338	\$ 4,418,873	\$ 32,878,849

<i>(In thousands)</i>	Carrying Amount	Estimated Fair Value at December 31, 2020			
		Level 1	Level 2	Level 3	Total
Financial Assets					
Loans:					
Business	\$ 6,546,087	\$ —	\$ —	\$ 6,467,572	\$ 6,467,572
Real estate - construction and land	1,021,595	—	—	995,873	995,873
Real estate - business	3,026,117	—	—	3,016,576	3,016,576
Real estate - personal	2,820,030	—	—	2,830,521	2,830,521
Consumer	1,950,502	—	—	1,953,217	1,953,217
Revolving home equity	307,083	—	—	304,434	304,434
Consumer credit card	655,078	—	—	576,320	576,320
Overdrafts	3,149	—	—	3,068	3,068
Total loans	16,329,641	—	—	16,147,581	16,147,581
Loans held for sale	45,089	—	45,089	—	45,089
Investment securities	12,626,296	841,025	11,638,558	146,713	12,626,296
Securities purchased under agreements to resell	850,000	—	—	894,338	894,338
Interest earning deposits with banks	1,747,363	1,747,363	—	—	1,747,363
Cash and due from banks	437,563	437,563	—	—	437,563
Derivative instruments	89,889	—	86,447	3,442	89,889
Assets held in trust for deferred compensation plan	19,278	19,278	—	—	19,278
Total	\$ 32,145,119	\$ 3,045,229	\$ 11,770,094	\$ 17,192,074	\$ 32,007,397
Financial Liabilities					
Non-interest bearing deposits	\$ 10,497,598	\$ 10,497,598	\$ —	\$ —	\$ 10,497,598
Savings, interest checking and money market deposits	14,604,456	14,604,456	—	—	14,604,456
Certificates of deposit	1,844,691	—	—	1,847,277	1,847,277
Federal funds purchased	42,270	42,270	—	—	42,270
Securities sold under agreements to repurchase	2,056,113	—	—	2,056,173	2,056,173
Derivative instruments	18,675	—	17,974	701	18,675
Liabilities held in trust for deferred compensation plan	19,278	19,278	—	—	19,278
Total	\$ 29,083,081	\$ 25,163,602	\$ 17,974	\$ 3,904,151	\$ 29,085,727

19. Derivative Instruments

The notional amounts of the Company's derivative instruments are shown in the table below. These contractual amounts, along with other terms of the derivative, are used to determine amounts to be exchanged between counterparties and are not a measure of loss exposure. With the exception of the interest rate floors (discussed below), the Company's derivative instruments are accounted for as free-standing derivatives, and changes in their fair value are recorded in current earnings.

<i>(In thousands)</i>	December 31	
	2021	2020
Interest rate swaps	\$ 2,229,419	\$ 2,367,017
Interest rate caps	152,058	103,028
Credit risk participation agreements	485,633	381,170
Foreign exchange contracts	5,119	7,431
Mortgage loan commitments	21,787	67,543
Mortgage loan forward sale contracts	1,165	—
Forward TBA contracts	21,000	89,000
Total notional amount	\$ 2,916,181	\$ 3,015,189

The largest group of notional amounts relate to interest rate swap contracts sold to commercial customers who wish to modify their interest rate sensitivity. Those customers are engaged in a variety of businesses, including real estate, manufacturing, retail product distribution, education, and retirement communities. These interest rate swap contracts with customers are offset by matching interest rate swap contracts purchased by the Company from other financial institutions (dealers). Contracts with dealers that require central clearing are novated to a clearing agency who becomes the Company's counterparty. Because of the matching terms of the offsetting contracts, in addition to collateral provisions which mitigate the impact of non-performance risk, changes in fair value subsequent to initial recognition have a minimal effect on earnings.

Many of the Company's interest rate swap contracts with large financial institutions contain contingent features relating to debt ratings or capitalization levels. Under these provisions, if the Company's debt rating falls below investment grade or if the Company ceases to be "well-capitalized" under risk-based capital guidelines, certain counterparties can require immediate and ongoing collateralization on interest rate swaps in net liability positions or instant settlement of the contracts. The Company maintains debt ratings and capital well above those minimum requirements.

During the year ended December 31, 2020, the Company monetized three interest rate floors that were previously classified as cash flow hedges with a combined notional balance of \$1.5 billion and an asset fair value of \$163.2 million. As of December 31, 2021, the total unrealized gains on the monetized cash flow hedges remaining in AOCI was \$99.4 million (pre-tax). The unrealized gains will be reclassified into interest income as the underlying forecasted transactions impact earnings through the original maturity dates of the hedged forecasted transactions, or approximately within 5 years. The estimated amount of net gains related to the cash flow hedges remaining in AOCI at December 31, 2021 that is expected to be reclassified into income within the next 12 months is \$24.5 million.

The Company also contracts with other financial institutions, as a guarantor or beneficiary, to share credit risk associated with certain interest rate swaps through risk participation agreements. The Company's risks and responsibilities as guarantor are further discussed in Note 21 on Commitments, Contingencies and Guarantees. In addition, the Company enters into foreign exchange contracts, which are mainly comprised of contracts with customers to purchase or deliver specific foreign currencies at specific future dates.

Under its program to sell residential mortgage loans in the secondary market, the Company designates certain newly-originated residential mortgage loans as held for sale. Derivative instruments arising from this activity include mortgage loan commitments and forward loan sale contracts. Changes in the fair values of the loan commitments and funded loans prior to sale that are due to changes in interest rates are economically hedged with forward contracts to sell residential mortgage-backed securities in the to-be-announced (TBA) market. These forward TBA contracts are also considered to be derivatives and are settled in cash at the security settlement date.

The fair values of the Company's derivative instruments, whose notional amounts are listed above, are shown in the table below. Information about the valuation methods used to determine fair value is provided in Note 17 on Fair Value Measurements.

The Company presents derivative assets and derivative liabilities on a gross basis, as other assets and other liabilities, on its consolidated balance sheets.

<i>(In thousands)</i>	Asset Derivatives		Liability Derivatives	
	December 31		December 31	
	2021	2020	2021	2020
	Fair Value		Fair Value	
Derivatives not designated as hedging instruments:				
Interest rate swaps *	\$ 40,752	\$ 86,389	\$ (11,606)	\$ (17,199)
Interest rate caps	147	1	(147)	(1)
Credit risk participation agreements	84	216	(277)	(701)
Foreign exchange contracts	77	57	(45)	(103)
Mortgage loan commitments	764	3,226	—	—
Mortgage loan forward sale contracts	5	—	(1)	—
Forward TBA contracts	13	—	(25)	(671)
Total derivatives not designated as hedging instruments	\$ 41,842	\$ 89,889	\$ (12,101)	\$ (18,675)
Total	\$ 41,842	\$ 89,889	\$ (12,101)	\$ (18,675)

*Certain collateral was posted to and from the Company's clearing party and has been applied to the fair values of the cleared swaps. As a result, these values are net of variation margin of \$587 thousand and \$0 for interest rate swaps in an asset position, and \$29.7 million and \$69.2 million for interest rate swaps in a liability position, at December 31, 2021 and 2020, respectively.

The pre-tax effects of derivative instruments on the consolidated statements of comprehensive income and consolidated statements of income are shown in the table below.

<i>(In thousands)</i>	Amount of Gain or (Loss) Recognized in OCI			Location of Gain (Loss) Reclassified from AOCI into Income	Amount of Gain (Loss) Reclassified from AOCI into Income		
	Total	Included Component	Excluded Component	<i>(In thousands)</i>	Total	Included Component	Excluded Component
For the Year Ended December 31, 2021							
Derivatives in cash flow hedging relationships:							
Interest rate floors	\$ —	\$ —	\$ —	Interest and fees on loans	\$ 24,160	\$ 30,310	\$ (6,150)
Total	\$ —	\$ —	\$ —	Total	\$ 24,160	\$ 30,310	\$ (6,150)
For the Year Ended December 31, 2020							
Derivatives in cash flow hedging relationships:							
Interest rate floors	\$ 93,497	\$ 120,140	\$ (26,643)	Interest and fees on loans	\$ 10,319	\$ 15,257	\$ (4,938)
Total	\$ 93,497	\$ 120,140	\$ (26,643)	Total	\$ 10,319	\$ 15,257	\$ (4,938)
For the Year Ended December 31, 2019							
Derivatives in cash flow hedging relationships:							
Interest rate floors	\$ 27,481	\$ 50,327	\$ (22,846)	Interest and fees on loans	\$ (3,793)	\$ —	\$ (3,793)
Total	\$ 27,481	\$ 50,327	\$ (22,846)	Total	\$ (3,793)	\$ —	\$ (3,793)

The gain and loss recognized through various derivative instruments on the consolidated statements of income are shown in the table below.

	Location of Gain/(Loss) Recognized in the Consolidated Statements of Income	Amount of Gain/(Loss) Recognized in Income on Derivative		
		For the Years Ended December 31		
		2021	2020	2019
<i>(In thousands)</i>				
Derivative instruments:				
Interest rate swaps	Other non-interest income	\$ 3,170	\$ 317	\$ 4,732
Interest rate caps	Other non-interest income	15	20	—
Credit risk participation agreements	Other non-interest income	(187)	413	(16)
Foreign exchange contracts	Other non-interest income	78	(111)	53
Mortgage loan commitments	Loan fees and sales	(2,463)	2,768	(77)
Mortgage loan forward sale contracts	Loan fees and sales	4	(4)	(3)
Forward TBA contracts	Loan fees and sales	1,777	(1,440)	(837)
Total		\$ 2,394	\$ 1,963	\$ 3,852

The following table shows the extent to which assets and liabilities relating to derivative instruments have been offset in the consolidated balance sheets. It also provides information about these instruments which are subject to an enforceable master netting arrangement, irrespective of whether they are offset, and the extent to which the instruments could potentially be offset. Also shown is collateral received or pledged in the form of other financial instruments, which is generally cash or marketable securities. The collateral amounts in this table are limited to the outstanding balances of the related asset or liability (after netting is applied); thus amounts of excess collateral are not shown. Most of the derivatives in the following table were transacted under master netting arrangements that contain a conditional right of offset, such as close-out netting, upon default.

While the Company is party to master netting arrangements with most of its swap counterparties, the Company does not offset derivative assets and liabilities under these arrangements on its consolidated balance sheets. Collateral exchanged between the Company and dealer bank counterparties is generally subject to thresholds and transfer minimums, and usually consist of marketable securities. By contract, this collateral may be sold or re-pledged by the secured party until recalled at a subsequent valuation date by the pledging party. For those swap transactions requiring central clearing, the Company posts cash or securities to its clearing agent. Collateral positions are valued daily, and adjustments to amounts received and pledged by the Company are made as appropriate to maintain proper collateralization for these transactions. Swap derivative transactions with customers are generally secured by rights to non-financial collateral, such as real and personal property, which is not shown in the table below.

<i>(In thousands)</i>	Gross Amount Recognized	Gross Amounts Offset in the Balance Sheet	Net Amounts Presented in the Balance Sheet	Gross Amounts Not Offset in the Balance Sheet		
				Financial Instruments Available for Offset	Collateral Received/ Pledged	Net Amount
December 31, 2021						
Assets:						
Derivatives subject to master netting agreements	\$ 40,970	\$ —	\$ 40,970	\$ (347)	\$ —	\$ 40,623
Derivatives not subject to master netting agreements	872	—	872			
Total derivatives	\$ 41,842	\$ —	\$ 41,842			
Liabilities:						
Derivatives subject to master netting agreements	\$ 12,019	\$ —	\$ 12,019	\$ (347)	\$ (10,146)	\$ 1,526
Derivatives not subject to master netting agreements	82	—	82			
Total derivatives	\$ 12,101	\$ —	\$ 12,101			
December 31, 2020						
Assets:						
Derivatives subject to master netting agreements	\$ 86,497	\$ —	\$ 86,497	\$ (108)	\$ —	\$ 86,389
Derivatives not subject to master netting agreements	3,392	—	3,392			
Total derivatives	\$ 89,889	\$ —	\$ 89,889			
Liabilities:						
Derivatives subject to master netting agreements	\$ 18,420	\$ —	\$ 18,420	\$ (108)	\$ (16,738)	\$ 1,574
Derivatives not subject to master netting agreements	255	—	255			
Total derivatives	\$ 18,675	\$ —	\$ 18,675			

20. Resale and Repurchase Agreements

The Company regularly enters into resale and repurchase agreement transactions with other financial institutions and with its own customers. Resale and repurchase agreements are agreements to purchase/sell securities subject to an obligation to resell/repurchase the same or similar securities. They are accounted for as secured lending and collateralized borrowing (e.g. financing transactions), not as true sales and purchases of the underlying collateral securities. Some of the resale and repurchase agreements were transacted under master netting arrangements that contain a conditional right of offset, such as close-out netting, upon default. The security collateral accepted or pledged in resale and repurchase agreements with other financial institutions may be sold or re-pledged by the secured party, but is usually delivered to and held by third party trustees. The Company generally retains custody of securities pledged for repurchase agreements with its customers. Additional information about the Company's repurchase agreements is included in Note 8.

The Company is party to agreements commonly known as collateral swaps. These agreements involve the exchange of collateral under simultaneous repurchase and resale agreements with the same financial institution counterparty. These repurchase and resale agreements have the same principal amounts, inception dates, and maturity dates and have been offset against each other in the consolidated balance sheets, as permitted under the netting provisions of ASC 210-20-45. The collateral swaps totaled \$400.0 million at December 31, 2021 and \$200.0 million at December 31, 2020.

The following table shows the extent to which resale agreement assets and repurchase agreement liabilities with the same counterparty have been offset on the consolidated balance sheets, in addition to the extent to which they could potentially be offset. Also shown is collateral received or pledged, which consists of marketable securities. The collateral amounts in the table are limited to the outstanding balances of the related asset or liability (after offsetting is applied); thus amounts of excess collateral are not shown.

<i>(In thousands)</i>	Gross Amount Recognized	Gross Amounts Offset on the Balance Sheet	Net Amounts Presented on the Balance Sheet	Gross Amounts Not Offset in the Balance Sheet		Unsecured amount
				Financial Instruments Available for Offset	Securities Collateral Received/ Pledged	
December 31, 2021						
Total resale agreements, subject to master netting arrangements	\$ 2,025,000	\$ (400,000)	\$ 1,625,000	\$ —	\$ (1,625,000)	\$ —
Total repurchase agreements, subject to master netting arrangements	3,379,582	(400,000)	2,979,582	—	(2,979,582)	—
December 31, 2020						
Total resale agreements, subject to master netting arrangements	\$ 1,050,000	\$ (200,000)	\$ 850,000	\$ —	\$ (850,000)	\$ —
Total repurchase agreements, subject to master netting arrangements	2,256,113	(200,000)	2,056,113	—	(2,056,113)	—

The table below shows the remaining contractual maturities of repurchase agreements outstanding at December 31, 2021 and 2020, in addition to the various types of marketable securities that have been pledged by the Company as collateral for these borrowings.

<i>(In thousands)</i>	Remaining Contractual Maturity of the Agreements			
	Overnight and continuous	Up to 90 days	Greater than 90 days	Total
December 31, 2021				
Repurchase agreements, secured by:				
U.S. government and federal agency obligations	\$ 600,866	\$ 33,373	\$ 9,259	\$ 643,498
Agency mortgage-backed securities	1,844,652	3,908	400,250	2,248,810
Non-agency mortgage-backed securities	32,299	—	—	32,299
Asset-backed securities	422,525	—	—	422,525
Other debt securities	32,450	—	—	32,450
Total repurchase agreements, gross amount recognized	\$ 2,932,792	\$ 37,281	\$ 409,509	\$ 3,379,582
December 31, 2020				
Repurchase agreements, secured by:				
U.S. government and federal agency obligations	\$ 150,305	\$ —	\$ —	\$ 150,305
Agency mortgage-backed securities	1,598,614	34,018	220,849	1,853,481
Non-agency mortgage-backed securities	62,742	—	—	62,742
Asset-backed securities	155,917	—	—	155,917
Other debt securities	33,668	—	—	33,668
Total repurchase agreements, gross amount recognized	\$ 2,001,246	\$ 34,018	\$ 220,849	\$ 2,256,113

21. Commitments, Contingencies and Guarantees

The Company engages in various transactions and commitments with off-balance sheet risk in the normal course of business to meet customer financing needs. The Company uses the same credit policies in making the commitments and conditional obligations described below as it does for on-balance sheet instruments. The following table summarizes these commitments at December 31:

<i>(In thousands)</i>	2021	2020
Commitments to extend credit:		
Credit card	\$ 5,007,409	\$ 4,972,104
Other	8,319,715	8,033,222
Standby letters of credit, net of conveyance to other financial institutions	418,328	357,087
Commercial letters of credit	5,304	3,117

Commitments to extend credit are legally binding agreements to lend to a borrower providing there are no violations of any conditions established in the contract. As many of the commitments are expected to expire without being drawn upon, the total commitment does not necessarily represent future cash requirements. Refer to Note 2 on Loans and Allowance for Credit Losses for further discussion.

The Company, as a provider of financial services, routinely issues financial guarantees in the form of financial and performance standby letters of credit. Standby letters of credit are contingent commitments issued by the Company generally to guarantee the payment or performance obligation of a customer to a third party. While these represent a potential cash outflow by the Company, a significant amount of the commitments may expire without being drawn upon. To mitigate the potential loss exposure, the Company involves other financial institutions to participate in certain standby letters of credit. Even with such participation, the Company remains liable for the full amount of the standby letters of credit to the third party. The Company has recourse against the customer for any amount it is required to pay to a third party under a standby letter of credit. The standby letters of credit are subject to the same credit policies, underwriting standards and approval process as loans made by the Company. Most of the standby letters of credit are secured, and in the event of nonperformance by the customer, the Company has rights to the underlying collateral, which could include commercial real estate, physical plant and property, inventory, receivables, cash and marketable securities.

At December 31, 2021, the Company had recorded a liability of \$2.9 million, representing the carrying value of the guarantee obligations associated with the standby letters of credit. This amount will be accreted into income over the remaining life of the respective commitments. Commitments outstanding under these letters of credit, which represent the maximum potential future payments guaranteed by the Company, were \$418.3 million at December 31, 2021.

Commercial letters of credit act as a means of ensuring payment to a seller upon shipment of goods to a buyer. The majority of commercial letters of credit issued are used to settle payments in international trade. Typically, letters of credit require presentation of documents which describe the commercial transaction, evidence shipment, and transfer title.

The Company regularly purchases various state tax credits arising from third-party property redevelopment. These tax credits are either resold to third parties for a profit or retained for use by the Company. During 2021, the Company purchased and sold state tax credits amounting to \$113.5 million and \$108.1 million, respectively. At December 31, 2021, the Company had outstanding purchase commitments totaling \$186.0 million that it expects to fund in 2022. The remaining purchase commitments amount to \$306.5 million and are expected to be funded from 2023 through 2029.

The Company periodically enters into credit risk participation agreements (RPAs) as a guarantor to other financial institutions, in order to mitigate those institutions' credit risk associated with interest rate swaps with third parties. The RPA stipulates that, in the event of default by the third party on the interest rate swap, the Company will reimburse a portion of the loss borne by the financial institution. These interest rate swaps are normally collateralized (generally with real property, inventories and equipment) by the third party, which limits the credit risk associated with the Company's RPAs. The third parties usually have other borrowing relationships with the Company. The Company monitors overall borrower collateral, and at December 31, 2021, believes sufficient collateral is available to cover potential swap losses. The RPAs are carried at fair value throughout their term, with all changes in fair value, including those due to a change in the third party's creditworthiness, recorded in current earnings. The terms of the RPAs, which correspond to the terms of the underlying swaps, range from 2 to 15 years. At December 31, 2021, the fair value of the Company's guarantee liability RPAs was \$277 thousand, and the notional

amount of the underlying swaps was \$366.4 million. The maximum potential future payment guaranteed by the Company cannot be readily estimated and is dependent upon the fair value of the interest rate swaps at the time of default.

During the third quarter of 2020, the Company signed a \$106.7 million agreement with U.S. Capital Development to develop a 280,000 square foot commercial office building in a two building complex in Clayton, Missouri. As of December 31, 2021, the Company has made payments totaling \$55.2 million. While the Company intends to occupy a portion of the office building for executive offices, a 15 year lease has been signed by an anchor tenant to lease approximately 50% of the office building.

The Company has various legal proceedings pending at December 31, 2021, arising in the normal course of business. While some matters pending against the Company specify damages claimed by plaintiffs, others do not seek a specified amount of damages or are at very early stages of the legal process. The Company records a loss accrual for all legal and regulatory matters for which it deems a loss is probable and can be reasonably estimated. Some matters, which are in the early stages, have not yet progressed to the point where a loss amount can be determined to be probable and estimable.

22. Related Parties

The Company's Chief Executive Officer, its Executive Chairman, and its former Vice Chairman are directors of Tower Properties Company (Tower) and, together with members of their immediate families, beneficially own approximately 66% of the outstanding stock of Tower. At December 31, 2021, Tower owned 233,724 shares of Company stock. Tower is primarily engaged in the business of owning, developing, leasing and managing real property.

Payments from the Company and its affiliates to Tower are summarized below. These payments, with the exception of dividend payments, relate to property management services, including construction oversight, on three Company-owned office buildings and related parking garages in downtown Kansas City.

<i>(In thousands)</i>	2021	2020	2019
Leasing agent fees	\$ 31	\$ —	\$ 154
Operation of parking garages	71	81	118
Building management fees	2,046	2,110	2,001
Property construction management fees	143	251	250
Project consulting fees	84	335	—
Dividends paid on Company stock held by Tower	234	229	210
Total	\$ 2,609	\$ 3,006	\$ 2,733

Tower has a \$13.5 million line of credit with the Bank which is subject to normal credit terms and has a variable interest rate. The line of credit is collateralized by Company stock and based on collateral value had a maximum borrowing amount of approximately \$12.9 million at December 31, 2021. There were no borrowings under this line during 2021, and no balance outstanding at December 31, 2021. There were no borrowings during 2020 and 2019, and there was no balance outstanding at December 31, 2020 or 2019. Letters of credit may be collateralized under this line of credit; however, there were no letters of credit outstanding during 2021, 2020 or 2019, and thus, no fees were received during these periods. From time to time, the Bank extends additional credit to Tower for construction and development projects. No construction loans were outstanding during 2021, 2020 and 2019.

Tower leases office space in the Kansas City bank headquarters building owned by the Company. Rent paid to the Company totaled \$83 thousand in 2021, \$87 thousand in 2020, and \$75 thousand in 2019, at \$17.25, \$17.19 and \$17.00 per square foot, respectively.

Directors of the Company and their beneficial interests have deposit accounts with the Bank and may be provided with cash management and other banking services, including loans, in the ordinary course of business. Such loans were made on substantially the same terms, including interest rates and collateral, as those prevailing at the time for comparable transactions with other unrelated persons and did not involve more than the normal risk of collectability. See Note 2 Loans and Allowance for Credit Losses for additional information for loans to directors and executive officers of the Company and the Bank, and to their affiliates.

As discussed in Note 21 on Commitments, Contingencies and Guarantees, the Company regularly purchases various state tax credits arising from third-party property redevelopment and resells the credits to third parties. During 2021, the Company

sold state tax credits to its Executive Chairman, its former Vice Chairman, and its Chief Executive Officer in the amount of \$772 thousand, \$619 thousand, and \$291 thousand, respectively, for personal tax planning. During 2020, the Company sold state tax credits to its Executive Chairman, its former Vice Chairman, and its Chief Executive Officer in the amount of \$603 thousand, \$551 thousand, \$223 thousand, respectively. During 2019, the Company sold state tax credits to its Executive Chairman, its former Vice Chairman, its Chief Executive Officer, and its former Chief Credit Officer in the amount of \$865 thousand, \$663 thousand, \$166 thousand, and \$83 thousand, respectively. The terms of the sales and the amounts paid were the same as the terms and amounts paid for similar tax credits by persons not related to the Company.

23. Parent Company Condensed Financial Statements

Following are the condensed financial statements of Commerce Bancshares, Inc. (Parent only) for the periods indicated:

Condensed Balance Sheets

<i>(In thousands)</i>	December 31	
	2021	2020
Assets		
Investment in consolidated subsidiaries:		
Bank	\$ 2,997,775	\$ 3,077,713
Non-banks	100,347	67,710
Cash	245,616	171,943
Investment securities:		
Available for sale debt	4,805	4,795
Equity	7,977	3,135
Note receivable due from bank subsidiary	50,000	50,000
Advances to subsidiaries, net of borrowings	40,525	31,907
Deferred tax assets	8,645	10,990
Other assets	29,393	26,222
Total assets	\$ 3,485,083	\$ 3,444,415
Liabilities and stockholders' equity		
Pension obligation	\$ 11,931	\$ 17,548
Other liabilities	35,854	29,820
Total liabilities	47,785	47,368
Stockholders' equity	3,437,298	3,397,047
Total liabilities and stockholders' equity	\$ 3,485,083	\$ 3,444,415

Condensed Statements of Income

<i>(In thousands)</i>	For the Years Ended December 31		
	2021	2020	2019
Income			
Dividends received from consolidated bank subsidiary	\$ 340,001	\$ 210,001	\$ 500,000
Earnings of consolidated subsidiaries, net of dividends	200,461	148,435	(79,641)
Interest and dividends on investment securities	2,162	1,802	1,698
Management fees charged to subsidiaries	36,310	33,472	36,776
Investment securities gains	79	53	3,572
Net interest income on advances and note to subsidiaries	51	233	1,208
Other	2,927	4,282	4,700
Total income	581,991	398,278	468,313
Expense			
Salaries and employee benefits	37,362	31,277	32,882
Professional fees	2,006	1,977	2,050
Data processing fees paid to affiliates	2,834	2,765	3,142
Other	12,973	11,850	13,106
Total expense	55,175	47,869	51,180
Income tax benefit	(3,949)	(3,648)	(4,098)
Net income	\$ 530,765	\$ 354,057	\$ 421,231

Condensed Statements of Cash Flows

<i>(In thousands)</i>	For the Years Ended December 31		
	2021	2020	2019
Operating Activities			
Net income	\$ 530,765	\$ 354,057	\$ 421,231
Adjustments to reconcile net income to net cash provided by operating activities:			
Earnings of consolidated subsidiaries, net of dividends	(200,461)	(148,435)	79,641
Other adjustments, net	8,842	5,504	2,491
Net cash provided by operating activities	339,146	211,126	503,363
Investing Activities			
(Increase) decrease in investment in subsidiaries, net	6	3	(12)
Proceeds from sales of investment securities	—	—	3,856
Proceeds from maturities/pay downs of investment securities	22	1,410	1,150
Purchases of investment securities	(4,786)	(4,863)	(63)
Increase in advances to subsidiaries, net	(8,618)	(5,810)	(6,230)
Net purchases of building improvements and equipment	(28)	(94)	(235)
Net cash used in investing activities	(13,404)	(9,354)	(1,534)
Financing Activities			
Preferred stock redemption	—	(150,000)	—
Purchases of treasury stock	(129,361)	(54,163)	(134,904)
Accelerated share repurchase agreements	—	—	(150,000)
Issuance of stock under equity compensation plans	(15)	(11)	(8)
Cash dividends paid on common stock	(122,693)	(120,818)	(113,466)
Cash dividends paid on preferred stock	—	(6,750)	(9,000)
Net cash used in financing activities	(252,069)	(331,742)	(407,378)
Increase (decrease) in cash	73,673	(129,970)	94,451
Cash at beginning of year	171,943	301,913	207,462
Cash at end of year	\$ 245,616	\$ 171,943	\$ 301,913
Income tax receipts, net	\$ (4,808)	\$ (3,663)	\$ (2,337)

Dividends paid by the Parent to its shareholders were substantially provided from Bank dividends. The Bank may distribute common dividends without prior regulatory approval, provided that the dividends do not exceed the sum of net income for the current year and retained net income for the preceding two years, subject to maintenance of minimum capital requirements. The Parent charges fees to its subsidiaries for management services provided, which are allocated to the subsidiaries based primarily on total average assets. The Parent makes cash advances to its private equity subsidiary for general short-term cash flow purposes. Advances may be made to the Parent by its subsidiary bank holding company for temporary investment of idle funds. Interest on such advances is based on market rates.

In 2017, the Bank borrowed \$50.0 million from the Parent as part of its strategy to manage FDIC insurance premiums. The note has a rolling 13 month maturity, and the interest rate is a variable rate equal to the one year treasury rate.

For the past several years, the Parent has maintained a \$20.0 million line of credit for general corporate purposes with the Bank. The Parent has not borrowed under this line during the past three years.

At December 31, 2021, the fair value of the investment securities held by the Parent consisted of investments of \$4.8 million in corporate bonds and \$6.9 million in preferred and common stock with readily determinable fair values, and \$1.1 million in equity securities that do not have readily determinable fair values.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

There were no changes in or disagreements with accountants on accounting and financial disclosure.

Item 9a. CONTROLS AND PROCEDURES

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934. Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this annual report.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in *Internal Control — Integrated Framework (2013)*, our management concluded that our internal control over financial reporting was effective as of December 31, 2021.

The Company's internal control over financial reporting as of December 31, 2021 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report which follows.

Changes in Internal Control Over Financial Reporting

No change in the Company's internal control over financial reporting occurred that has materially affected, or is reasonably likely to materially affect, such controls during the last quarter of the period covered by this report.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Commerce Bancshares, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited Commerce Bancshares, Inc. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2021, 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, 2021, 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, 2021 and 2020, 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, 2021, and the related notes (collectively, the consolidated financial statements), and our report dated February 23, 2022 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit 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.

KPMG LLP

Kansas City, Missouri
February 23, 2022

Item 9b. OTHER INFORMATION

None

Item 9c. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by Items 401, 405 and 407(c)(3), (d)(4) and (d)(5) of Regulation S-K regarding executive officers, directors, and corporate governance is included at the end of Part I of this Form 10-K under the caption "Information about the Company's Executive Officers" and under the captions "Proposal One - Election of the 2025 Class of Directors", "Delinquent Section 16(a) Reports", "Audit and Risk Committee Report", "Committees of the Board" and "Shareholder Proposals and Nominations" in the Company's definitive Proxy Statement relating to the Annual Meeting of Shareholders to be held on April 20, 2022, which is incorporated herein by reference.

The Company's senior financial officer code of ethics for the chief executive officer and senior financial officers of the Company, including the chief financial officer, principal accounting officer or controller, or persons performing similar functions, is available at www.commercebank.com. Amendments to, and waivers of, the code of ethics are posted on this website.

Item 11. EXECUTIVE COMPENSATION

The information required by Items 402 and 407(e)(4) and (e)(5) of Regulation S-K regarding executive compensation is included under the captions "Compensation Discussion and Analysis", "Executive Compensation", "Director Compensation", "Compensation and Human Resources Committee Report", and "Compensation and Human Resources Committee Interlocks and Insider Participation" in the Company's definitive Proxy Statement relating to the Annual Meeting of Shareholders to be held on April 20, 2022, which is incorporated herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by Items 201(d) and 403 of Regulation S-K is included under the captions "Equity Compensation Plan Information" and "Security Ownership of Certain Beneficial Owners and Management" in the Company's definitive Proxy Statement relating to the Annual Meeting of Shareholders to be held on April 20, 2022, which is incorporated herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Items 404 and 407(a) of Regulation S-K is covered under the captions "Proposal One - Election of the 2025 Class of Directors" and "Corporate Governance" in the Company's definitive Proxy Statement relating to the Annual Meeting of Shareholders to be held on April 20, 2022, which is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Our independent registered public accounting firm is KPMG, LLP, Kansas City, Missouri, PCAOB Firm ID: 185

The information required by Item 9(e) of Schedule 14A is included under the captions "Pre-approval of Services by the External Independent Registered Public Accounting Firm" and "Fees Paid to KPMG LLP" in the Company's definitive Proxy Statement relating to the Annual Meeting of Shareholders to be held on April 20, 2022, which is incorporated herein by reference.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as a part of this report:

	<u>Page</u>
(1) Financial Statements:	
Consolidated Balance Sheets	68
Consolidated Statements of Income	69
Consolidated Statements of Comprehensive Income	70
Consolidated Statements of Changes in Equity	71
Consolidated Statements of Cash Flows	72
Notes to Consolidated Financial Statements	73
Summary of Quarterly Statements of Income	61
(2) Financial Statement Schedules:	
All schedules are omitted as such information is inapplicable or is included in the financial statements.	

(b) The exhibits filed as part of this report and exhibits incorporated herein by reference to other documents are listed below.

3 —Articles of Incorporation and By-Laws:

- (1) Restated Articles of Incorporation, as amended, were filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated May 7, 2019, and the same are hereby incorporated by reference.
- (2) By-Laws, as amended, were filed in annual report on Form 10-K (Commission file number 1-36502) dated February 25, 2020, and the same are hereby incorporated by reference.
- (3) Termination of Certificate of Designation of 6.00% Series B Non-Cumulative Perpetual Preferred Stock of Commerce Bancshares, Inc. was filed in current report on Form 8-K (Commission file number 0-2989) dated September 1, 2020, and the same is hereby incorporated by reference.

4 — Instruments defining the rights of security holders, including indentures:

- (1) Pursuant to paragraph (b)(4)(iii) of Item 601 Regulation S-K, Registrant will furnish to the Commission upon request copies of long-term debt instruments.
- (2) Description of Commerce Bancshares, Inc. registered securities was filed in annual report on Form 10-K (Commission file number 1-36502) dated February 25, 2020, and the same is hereby incorporated by reference.

10 — Material Contracts (Except for the Development Services Agreement and associated Amendments to the Development Service Agreement listed below, each of the following is a management contract or compensatory plan arrangement):

- (1) Commerce Bancshares, Inc. Executive Incentive Compensation Plan amended and restated as of January 1, 2019, was filed in annual report on Form 10-K (Commission file number 1-36502) dated February 21, 2019, and the same is hereby incorporated by reference.
- (2) Commerce Bancshares, Inc. Stock Purchase Plan for Non-Employee Directors amended and restated as of April 17, 2013 was filed in current report on Form 8-K (Commission file number 0-2989) dated April 23, 2013, and the same is hereby incorporated by reference.
- (3) Commerce Bancshares, Inc. Stock Purchase Plan for Non-Employee Directors amended and restated as of December 21, 2021 was filed in registration statement on Form S-8 (Commission file number 333-262580) dated February 8, 2022, and the same is hereby incorporated by reference.
- (4) Commerce Executive Retirement Plan amended and restated as of January 28, 2011 was filed in annual report on Form 10-K (Commission file number 0-2989) dated February 25, 2011, and the same is hereby incorporated by reference.
- (5) 2009 Form of Severance Agreement between Commerce Bancshares, Inc. and the persons listed at the end of such agreement was filed in annual report on Form 10-K (Commission file number 1-36502) dated February 24, 2015, and the same is hereby incorporated by reference.

- (6) 2015 Form of Severance Agreement between Commerce Bancshares, Inc. and the persons listed at the end of such agreement was filed in annual report on Form 10-K (Commission file number 1-36502) dated February 24, 2015, and the same is hereby incorporated by reference.
- (7) 2009 Form of Severance Agreement between Commerce Bancshares, Inc. and the persons listed at the end of such agreement was filed in annual report on Form 10-K (Commission file number 1-36502) dated February 21, 2019, and the same is hereby incorporated by reference.
- (8) Trust Agreement for the Commerce Bancshares, Inc. Executive Incentive Compensation Plan amended and restated as of January 1, 2001 was filed in quarterly report on Form 10-Q (Commission file number 0-2989) dated May 8, 2001, and the same is hereby incorporated by reference.
- (9) Commerce Bancshares, Inc. 2022 Compensatory Arrangements with CEO and Named Executive Officers were filed in amended current report on Form 8-K (Commission file number 1-36502) dated February 7, 2022, and the same is hereby incorporated by reference.
- (10) Commerce Bancshares, Inc. Amended and Restated 2005 Equity Incentive Plan, amended and restated as of April 17, 2013 (incorporated by reference to Exhibit 10(j) to Commerce Bancshares, Inc.'s Form 8-K dated April 23, 2013).
- (10)(1) Amendment No. 1 dated November 12, 2018 to Commerce Bancshares, Inc. Amended and Restated 2005 Equity Incentive Plan, amended and restated as of April 17, 2013, was filed in annual report on Form 10-K (Commission file number 1-36502) dated February 21, 2019.
- (11) Commerce Bancshares, Inc. Stock Appreciation Rights Agreement and Commerce Bancshares, Inc. Restricted Stock Award Agreement, pursuant to the 2005 Equity Incentive Plan, were filed in current report on Form 8-K (Commission file number 0-2989) dated February 23, 2006, and the same are hereby incorporated by reference.
- (12) Commerce Bancshares, Inc. Stock Appreciation Rights Agreement, Commerce Bancshares, Inc. Restricted Stock Award Agreements for Executive Officers, and Commerce Bancshares, Inc. Restricted Stock Award Agreements for Employees other than Executive Officers, pursuant to the 2005 Equity Incentive Plan, were filed in quarterly report on Form 10-Q (Commission file number 0-2989) dated May 6, 2013, and the same are hereby incorporated by reference.
- (13) Form of Notice of Grant of Award and Award Agreement for Restricted Stock for Executive Officers, pursuant to the Commerce Bancshares, Inc. 2005 Equity Incentive Plan, was filed in quarterly report on Form 10-Q (Commission file number 0-2989) dated May 7, 2014, and the same is hereby incorporated by reference.
- (14) Form of Notice of Grant of Award and Award Agreement for Restricted Stock for Employees other than Executive Officers, pursuant to the Commerce Bancshares, Inc. 2005 Equity Incentive Plan, was filed in quarterly report on Form 10-Q (Commission file number 0-2989) dated May 7, 2014, and the same is hereby incorporated by reference.
- (15) Form of Notice of Grant of Award and Award Agreement for Stock Appreciation Rights, pursuant to the Commerce Bancshares, Inc. 2005 Equity Incentive Plan, was filed in quarterly report on Form 10-Q (Commission file number 0-2989) dated May 7, 2014, and the same is hereby incorporated by reference.
- (16) Form of Notice of Grant of Award and Award Agreement for Restricted Stock, pursuant to the Commerce Bancshares, Inc. 2005 Equity Incentive Plan, was filed in annual report on Form 10-K (Commission file number 1-36502) dated February 21, 2019, and the same is hereby incorporated by reference.
- (17) Development Services Agreement* was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.
- (18) Amendment 1 to Development Services Agreement* was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.
- (19) Amendment 2 to Development Services Agreement was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.
- (20) Amendment 3 to Development Services Agreement was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.
- (21) Amendment 4 to Development Services Agreement was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.
- (22) Amendment 5 to Development Services Agreement was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.
- (23) Amendment 6 to Development Services Agreement was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.

(24) Amendment 7 to Development Services Agreement was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.

(25) Amendment 8 to Development Services Agreement was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.

(26) Amendment 9 to Development Services Agreement was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.

(27) Amendment 10 to Development Services Agreement was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.

(28) Amendment 11 to Development Services Agreement* was filed in quarterly report on Form 10-Q (Commission file number 1-36502) dated November 5, 2020, and the same is hereby incorporated by reference.

[21 — Subsidiaries of the Registrant](#)

[23 — Consent of Independent Registered Public Accounting Firm](#)

[24 — Power of Attorney](#)

[31.1 — Certification of CEO pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)

[31.2 — Certification of CFO pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)

[32 — Certifications of CEO and CFO pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)

101 — Interactive data files pursuant to Rule 405 of Regulation S-T: (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Income, (iii) the Consolidated Statements of Comprehensive Income, (iv) the Consolidated Statements of Changes in Equity, (v) the Consolidated Statements of Cash Flows and (vi) the Notes to Consolidated Financial Statements, tagged as blocks of text and in detail. The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.

104 — Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* In accordance with Item 601(a)(5) of Regulation S-K, certain schedules and exhibits to this exhibit have been omitted from this filing. The Company will furnish a copy of any omitted schedule or exhibit to the Securities and Exchange Commission or its staff upon request. In accordance with Item 601(b)(10)(iv) of Regulation S-K, certain portions of this exhibit have been redacted because they are both (i) not material and (ii) would likely cause competitive harm to the Company if publicly disclosed. The Company will provide an unredacted copy of the exhibit on a supplementary basis to the Securities and Exchange Commission or its staff upon request.

Item 16. FORM 10-K SUMMARY

None.

The consolidated subsidiaries of the Registrant at February 1, 2022 were as follows:

<u>Name</u>	<u>State or Other Jurisdiction of Incorporation</u>
CBI-Kansas, Inc.	Kansas
Commerce Bank	Missouri
Commerce Brokerage Services, Inc.	Missouri
Clayton Holdings, LLC	Missouri
Clayton Financial Corp.	Missouri
Clayton Realty Corp.	Missouri
Illinois Financial, LLC	Delaware
Illinois Realty, LLC	Delaware
Commerce Insurance Services, Inc.	Missouri
Commerce Investment Advisors, Inc.	Missouri
CBI Equipment Finance, Inc.	Missouri
CB Acquisition, LLC	Delaware
Tower Redevelopment Corporation	Missouri
CBI Insurance Company	Arizona
CFB Partners, LLC	Delaware
CFB Venture Fund I, Inc.	Missouri
CFB Venture Fund, L.P.	Delaware
Capital for Business, Inc.	Missouri

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements No. 33-28294, No. 33-82692, No. 33-8075, No. 33-78344, No. 333-14651, No. 333-186867, No. 333-188374, No. 333-214495, and No. 333-262580 on Form S-8 and No. 333-140221 on Form S-3ASR of our reports dated February 23, 2022, with respect to the consolidated financial statements of Commerce Bancshares, Inc. and the effectiveness of internal control over financial reporting.

KPMG LLP

Kansas City, Missouri
February 23, 2022

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned do hereby appoint Thomas J. Noack and Paul A. Steiner, or either of them, attorney for the undersigned to sign the Annual Report on Form 10-K of Commerce Bancshares, Inc., for the fiscal year ended December 31, 2021, together with any and all amendments which might be required from time to time with respect thereto, to be filed with the Securities and Exchange Commission under the Securities Exchange Act of 1934, with respect to Commerce Bancshares, Inc., with full power and authority in either of said attorneys to do and perform in the name of and on behalf of the undersigned every act whatsoever necessary or desirable to be done in the premises as fully and to all intents and purposes as the undersigned might or could do in person.

IN WITNESS WHEREOF, the undersigned have executed these presents as of this 4th day of February, 2022.

/s/ TERRY D. BASSHAM

/s/ JOHN R. CAPPS

/s/ EARL H. DEVANNY, III

/s/ W. THOMAS GRANT, II

/s/ KAREN L. DANIEL

/s/ DAVID W. KEMPER

/s/ JOHN W. KEMPER

/s/ JONATHAN M. KEMPER

/s/ BENJAMIN F. RASSIEUR, III

/s/ TODD R. SCHNUCK

/s/ ANDREW C. TAYLOR

/s/ KIMBERLY G. WALKER

CERTIFICATION

I, John W. Kemper, certify that:

1. I have reviewed this annual report on Form 10-K of Commerce Bancshares, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ JOHN W. KEMPER

John W. Kemper
President and
Chief Executive Officer

February 23, 2022

CERTIFICATION

I, Charles G. Kim, certify that:

1. I have reviewed this annual report on Form 10-K of Commerce Bancshares, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ CHARLES G. KIM

Charles G. Kim
*Executive Vice President and
Chief Financial Officer*

February 23, 2022

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Commerce Bancshares, Inc. (the “Company”) on Form 10-K for the year ended December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), we, John W. Kemper and Charles G. Kim, Chief Executive Officer and Chief Financial Officer, respectively, of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of our knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ JOHN W. KEMPER

John W. Kemper
Chief Executive Officer

/s/ CHARLES G. KIM

Charles G. Kim
Chief Financial Officer

February 23, 2022

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

CORPORATE HEADQUARTERS

1000 Walnut
P.O. Box 419248
Kansas City, MO 64141-6248
816.234.2000
www.commercebank.com

**TRANSFER AGENT, REGISTRAR
AND DIVIDEND DISBURSING AGENT****Shareholder correspondence should be mailed to:**

Computershare Trust Company, N.A.
P.O. Box 505000
Louisville, KY 40233

Overnight correspondence should be sent to:

Computershare
462 South 4th Street, Suite 1600
Louisville, KY 40202

Within USA Telephone: 800.317.4445
Outside USA Telephone: 781.575.2723

Hearing Impaired/TDD: 800.952.9245
Website: www.computershare.com/investor

Shareholder online inquiries:

<https://www.us.computershare.com/investor/contact>

STOCK EXCHANGE LISTING

Nasdaq
Common Stock Symbol: CBSH

ANNUAL MEETING

This year's annual meeting will be a virtual meeting of shareholders. The meeting will be held Wednesday, April 20, 2022 at 9:30 a.m., and you may attend via webcast. Please note there will be no in-person meeting to attend.

INVESTOR INQUIRIES

Shareholders, analysts and investors seeking information about the company should direct their inquiries to:

Matt Burkemper
Senior Vice President, Commerce Bank
Corporate Development and Investor Relations
8000 Forsyth Boulevard
St. Louis, MO 63105
314.746.7485
Matthew.Burkemper@commercebank.com

SHAREHOLDERS MAY RECEIVE FUTURE ANNUAL REPORTS AND PROXY MATERIALS ONLINE

To receive materials electronically, rather than by mail, **individuals who hold stock in their name** may enroll for electronic delivery at Computershare's investor website: www.computershare.com/investor

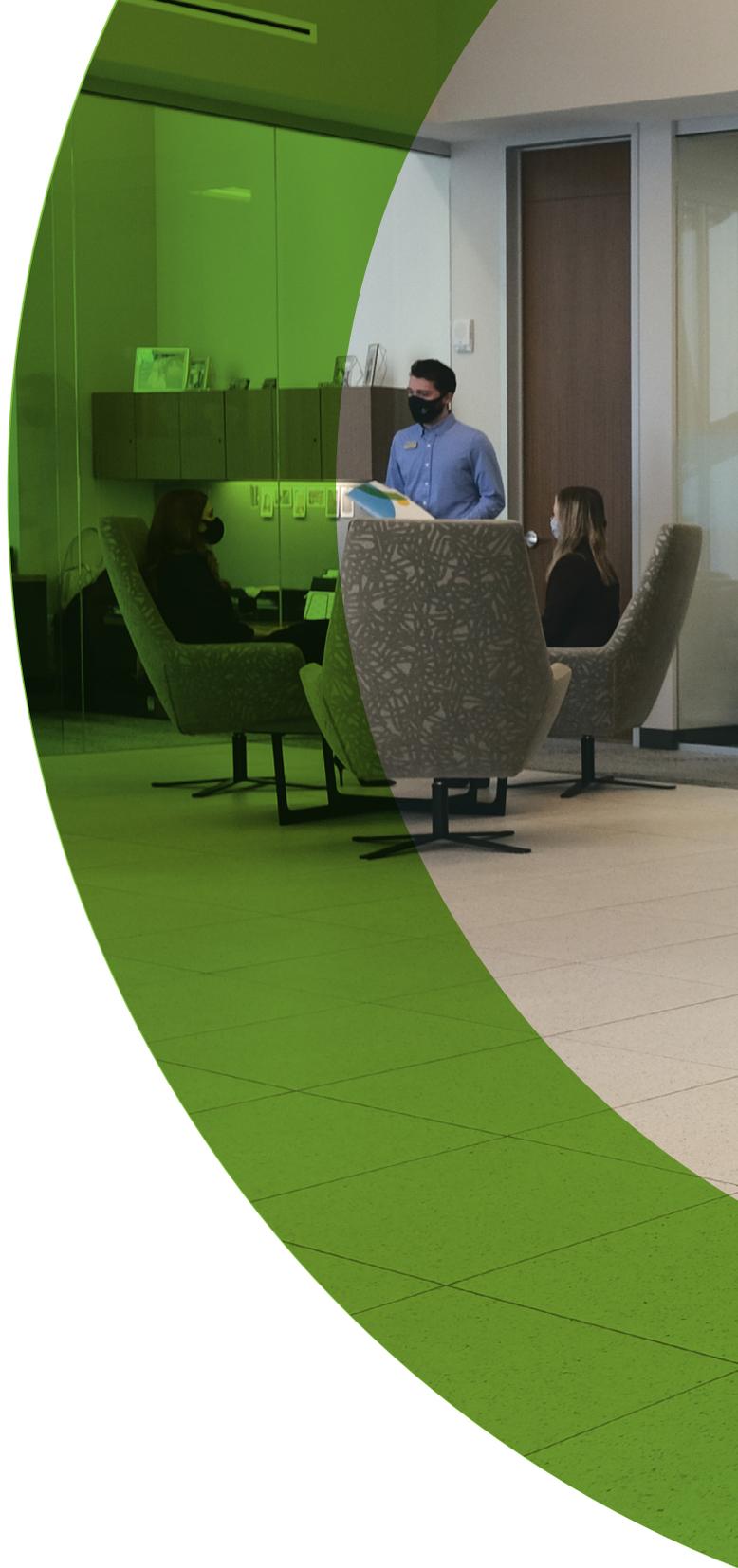
- If you have already created a login ID and password at the above site, log in and follow the prompts to "Enroll in Electronic Delivery."
- If you have not created a login ID and password on the above site, choose "Create Login." You will need the Social Security number or tax ID number associated with your Commerce stock account to create the login. After you have created your login, follow the prompts to "Enroll in Electronic Delivery."

Please note:

- Your consent is entirely revocable.
- You can always vote your proxy on the internet whether or not you elect to receive your materials electronically.

Shareholders who hold their Commerce stock through a bank, broker or other holder of record should refer to the information provided by that entity for instructions on how to elect to view future annual reports and proxy statements over the internet.

Employee PIP [401(k)] shareholders who have a company email address and online access will automatically be enrolled to receive the Annual Report, Proxy Statement, and proxy card over the internet unless they choose to opt out by emailing the Corporate Secretary at Thomas.Noack@commercebank.com.



COMMERCE BANCSHARES, INC.

1000 WALNUT
P.O. BOX 419248
KANSAS CITY, MO 64141-6248
Phone: 816.234.2000
800.892.7100

Email: CBSHInvestorRelations@commercebank.com
Website: www.commercebank.com

An Equal Opportunity Employer

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