Third Quarter Report

2021

Farm Credit Bank of Texas

Third Quarter 2021 Financial Report

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Management's Discussion and Analysis of Financial Condition and Results of Operations

(dollars in thousands, except as noted)

The following discussion reviews the financial condition and results of operations of the Farm Credit Bank of Texas (Bank) for the three and nine months ended September 30, 2021. These comments should be read in conjunction with the accompanying financial statements and footnotes, along with the 2020 Annual Report to shareholders. The accompanying financial statements were prepared under the oversight of the bank's audit committee.

The bank is a member of the Farm Credit System (System), a nationwide network of cooperatively owned financial institutions established by and subject to the provisions of the Farm Credit Act of 1971, as amended, and the regulations of the Farm Credit Administration (FCA) promulgated thereunder.

The United States is currently served by three Farm Credit Banks (FCBs), each of which has specific authority to fund affiliated associations and other financing institutions (OFIs) which make loans to agricultural producers, farm-related businesses and rural homeowners within a regional chartered territory (or district), and by one Agricultural Credit Bank (ACB), which has the lending authority of an FCB within its chartered territory and nationwide authority to finance agricultural cooperatives and rural utilities. The FCBs and the ACB are collectively referred to as "System banks." As FCBs, the primary purpose of the System banks is to serve as a source of funding for System associations within their districts. The System associations make loans to or for the benefit of borrowers for qualified purposes. At September 30, 2021, the bank provided financing to 14 district associations and certain OFIs.

The accompanying financial statements exclude financial information of the bank's affiliated associations. The bank and its affiliated associations are collectively referred to as the "Texas District." The bank separately publishes certain unaudited combined financial information of the Texas District, including a condensed statement of condition and statement of income, which can be found on the bank's website at *www.farmcreditbank.com*.

CONDITIONS IN THE TEXAS DISTRICT

The United States continues to operate under a presidentially declared emergency since March 13, 2020, due to the Coronavirus Disease 2019 (also referred to as COVID-19). The U.S. economy is estimated to have decelerated during the third quarter of 2021 due primarily to a surge in new COVID-19 cases and supply chain disruptions that negatively impacted performance. The U.S. Bureau of Economic Analysis estimates that real gross domestic product (GDP) increased at an annual rate of 6.7% in the second quarter of 2021, up from 6.3% during the first quarter of 2021. However, as of October 1, 2021, the Federal Reserve Bank of Atlanta estimates that real GDP growth was about 2.3% during the third quarter of 2021. According to the International Monetary Fund's latest World Economic Outlook, released on July 27, 2021, U.S. real GDP growth is estimated to be 7.0% in 2021. Inflationary pressures persisted during the third quarter of 2021. The annual inflation rate increased in July and August 2021, reaching 5.3%. Additionally, the most recent data available from the U.S. Bureau of Labor Statistics indicates that the unemployment rate decreased in each of the states within the Texas District during July and August 2021 but remained above pre-pandemic levels.

West Texas Intermediate (WTI) crude oil prices continued to rise during the third quarter of 2021, averaging slightly above $70 per barrel, up from $66 per barrel in the previous quarter. Similarly, WTI crude oil prices increased by about 72.0% year-over-year from an average of about $41 per barrel during the third quarter of 2020. In its September 2021 Short-Term Energy Outlook (STEO), the U.S. Energy Information Administration estimated that WTI prices would average nearly $66 per barrel during 2021, up about $4 per barrel from the previous quarter. The September 2021 STEO also states that natural gas prices increased in August 2021, reflecting higher demand from the electric power sector due to hotter temperatures. Prices rose further by the end of August 2021 due to disruptions in natural gas production caused by Hurricane Ida in the Gulf of Mexico.

In September 2021, the U.S. Department of Agriculture (USDA) presented its latest farm income forecast. Net farm income is forecasted at $113.03 billion in 2021, up $18.45 billion or 19.5% year-over-year. Total production expenses are forecasted to increase by about 3.5% in 2021 when adjusted for inflation. Farm sector assets and equity are both forecasted to increase by about 2.5% and 2.9%, respectively, while farm debt is forecasted to decrease by about 0.2% in real terms. After deteriorating since 2012, the debt-to-assets ratio is forecasted to fall (i.e., improve) in 2021. The bankruptcy rate and the debt service ratio are similarly forecasted to improve in 2021.

According to the USDA's September 2021 World Agricultural Supply and Demand Estimates report, average farm prices for corn, soybeans and cotton are still on track to experience double-digit growth during the 2021/22 marketing year. Steer prices are estimated to have averaged higher during the third quarter of 2021 compared to the prior quarter and are expected to continue rising during the fourth quarter of 2021. Additionally, steers, barrows and gilts, broilers, and turkey prices are also projected to experience double-digit year-over-year price growth in 2021. However, the USDA revised down by nearly 4 percentage points its estimate for the average farm price of all-milk during 2021 compared to its June 2021 estimate. The all-milk price is now projected to decline by about 0.5% year-over-year in 2021, before increasing by 1.4% during 2022. Lumber prices continued to decline this quarter but were still slightly higher year-over-year in 2021.

Weather conditions in the district have generally been favorable for crop and livestock production year-to-date. Crop yields in district states are likely to be above average during 2021. The winter storm experienced across portions of the U.S., including Texas, in February 2021 led to operational and financial stress for certain companies operating in the electric utility sector. The bank is actively monitoring developments related to a limited number of borrowers in its participation portfolio that were materially impacted by these conditions. Hurricane Ida, one of the strongest storms to ever make landfall in the continental U.S., brought wind and heavy rainfall to southeastern Louisiana and portions of Mississippi and Alabama at the end of August. Heavy precipitation extended into the Northeast as the storm moved across the country following landfall. The storm caused widespread power outages and damage to agricultural and non-agricultural facilities in the affected region. However, Hurricane Ida is not expected to significantly impact the bank's financial results. There were no other natural disaster events, such as tropical storms or droughts, significantly impacting the district's operations during the third quarter.

For the remainder of 2021, agricultural producers may be negatively affected by several factors, including volatile commodity prices, export market disruptions, a recovering global economy and weather-related challenges. The district loan portfolio is well-supported by industry diversification and conservative advance rates. Additionally, a high percentage of the district's borrowers primarily rely on non-farm sources of income to repay their loans.

During 2021, the Bank in its role as an information technology provider to its affiliated associations continued to modernize and roll out its service offering branded FarmView. FarmView is an integrated suite of products for managing the full lending relationship. The suite of products includes sales management, origination, credit analysis, loan accounting, integrated cash management, and document management solutions. The FarmView platform provides benefits directly to the converted associations as well as their underlying retail borrowers. During the third and fourth quarters of 2021 the Bank converted several of its associations to FarmView from legacy platforms, and is focused on training and conversion related activities for the next set of conversions that will occur during 2022. The effort to achieve these successful implementations has spanned multiple years.

RESULTS OF OPERATIONS

Net Income

Net income for the three months ended September 30, 2021, was $58.4 million, a decrease of $9.4 million, or 13.90%, over the same period of 2020. The decrease in net income was driven by a $2.7 million decrease in net interest income, a $1.1 million decrease in noninterest income, a $5.5 million increase in noninterest expense and an $84 thousand increase in provision for credit losses.

Net income for the nine months ended September 30, 2021, was $186.8 million, an increase of $10.3 million, or 5.86%, over the same period of 2020. The increase in net income was driven by a $27.4 million increase in net interest income and a $3.6 million increase in noninterest income, offset by an $18.6 million increase in noninterest expense and a $2.1 million increase in provision for credit losses.

Net Interest Income

Net interest income for the three months ended September 30, 2021, was $87.4 million, a decrease of $2.7 million, or 3.01%, from the three months ended September 30, 2020. The decrease in net interest income was attributable to a 16-basis-point decrease in the net interest rate spread from 125 basis points to 109 basis points, offset by a $3.46 billion increase in the bank's average earning assets. The decrease in net interest rate spread was due to a 36-basis-point decrease in the rate on interest-earning assets, compared to a 20-basis-point decrease in the average rate of debt. The net interest margin of 115 basis points for the three months ended September 30, 2021, was 19 basis points lower than the three months ended September 30, 2020.

Net interest income for the nine months ended September 30, 2021, was $271.7 million, an increase of $27.4 million, or 11.23%, from the nine months ended September 30, 2020. The increase in net interest income was attributable to a $2.77 billion increase in the bank's average earning assets and a 4-basis-point increase in the net interest rate spread from 115 basis points to 119 basis points. The increase in net interest rate spread was due to a 58-basis-point decrease in the average rate of debt, compared to a 54-basis-point decrease in the rate on interest-earning assets. The net interest margin of 125 basis points for the nine months ended September 30, 2021, was consistent with the nine months ended September 30, 2020.

An increase in loan volume contributed to the year-over-year increase in net interest income, driven by growth at the affiliated associations. This growth resulted from the associations' retail customers taking advantage of the low-interest rate environment and strong economic conditions within the district's chartered territory. During the three months ended September 30, 2021, the bank called $1.66 billion in debt and recognized $4.2 million in accelerated concession expense, compared to $2.93 billion in debt called and $5.0 million in accelerated concession expense for the same period in 2020. During the nine months ended September 30, 2021, the bank called $3.93 billion in debt and recognized $7.2 million in accelerated concession expense, compared to $14.40 billion in debt called and $19.4 million in accelerated concession expense for the same period in 2020. For both the three and nine months ended September 30, 2021, the year-over-year decrease in callable debt redemptions for the same periods of 2020 reflected an increase in the overall level of interest rates.

Provision for Credit Losses

The provision for credit losses for the three months ended September 30, 2021, totaled $419 thousand, an increase of $84 thousand from the $335 thousand provision for credit losses recorded for the same period of 2020. The provision for credit losses for the three months ended September 30, 2021, primarily reflected an increase in quantitative general reserves due to credit deterioration in a limited number of borrowers in the agribusiness sector. The provision for credit losses for the three months ended September 30, 2020, reflected the impact of an increase in qualitative general reserves for the participations purchased loan portfolio due to uncertainty from the COVID-19 pandemic, offset by a reduction in general reserves due to an improvement in credit quality.

The provision for credit losses for the nine months ended September 30, 2021, totaled $3.1 million, an increase of $2.1 million from the $921 thousand provision for credit losses recorded for the same period of 2020. The provision for credit losses recorded for the nine months ended September 30, 2021, was mainly driven by an increase in specific reserves and credit deterioration on a limited number of borrowers within the electric utility sector due to the unprecedented winter storm in early 2021, as well as an increase in quantitative general reserves due to credit deterioration in a limited number of borrowers in the agribusiness sector. For the nine months ended September 30, 2020, the provision for credit losses reflected an increase in qualitative general reserves related to the capital markets and participation loans purchased portfolio associated with uncertainty from the COVID-19 pandemic, offset by a loan loss reversal of specific reserves on one agribusiness loan.

Noninterest Income

Noninterest income for the three months ended September 30, 2021, was $8.1 million, a decrease of $1.1 million, or 11.79%, over the same period of 2020. The change was due mainly to a decrease in fees for loan-related services.

Noninterest income for the nine months ended September 30, 2021, was $29.9 million, an increase of $3.6 million or 13.74%, over the same period of 2020. The change was due mainly to increases in fees for loan-related services and patronage income.

Noninterest Expense

Noninterest expense for the three months ended September 30, 2021, was $36.7 million, an increase of $5.5 million, or 17.74%, over the same period of 2020. The increase primarily consisted of a $1.8 million increase in salaries and employee benefits, a $1.3 million increase in the Farm Credit System Insurance Corporation (FCSIC) insurance premiums due to increases in the premium rate period-over-period, a $754 thousand increase in professional and contract services, and a $583 thousand increase in occupancy and equipment primarily due to computer software depreciation.

Noninterest expense for the nine months ended September 30, 2021, was $111.8 million, an increase of $18.6 million, or 19.92%, over the same period of 2020. The increase primarily consisted of a $5.3 million increase in the Farm Credit System Insurance Corporation (FCSIC) insurance premiums due to increases in the premium rate and outstanding debt used to fund loan volume growth period-over-period, a $5.1 million increase in salaries and employee benefits, a $4.6 million increase in professional and contract services, and a $2.7 million increase in occupancy and equipment due to computer software and maintenance expense and related depreciation.

Key results of operations comparisons:

	Annualized for the Nine Months Ended September	
	2021	2020
Return on average assets	**0.83%**	0.86%
Return on average shareholders' equity	**11.87%**	11.82%
Net interest income as a percentage of average earning assets	**1.25%**	1.25%
Charge-offs, net of recoveries to average loans	**0.00%**	0.02%
Operating expenses as a percentage of net interest income and noninterest income	**37.05%**	34.44%
Operating expenses as a percentage of average earning assets	**0.52%**	0.48%

Other Comprehensive Income (Loss)

Other comprehensive income (loss) consists of certain gains, losses or costs for which values are included in assets or liabilities on the balance sheets but have not yet been recognized in earnings. On the balance sheets, they are included in accumulated other comprehensive loss in the shareholders' equity section. These elements include unrealized gains or losses on the bank's available-for-sale (AFS) investment portfolio, changes in elements of the postretirement benefit plans and changes in the value of cash flow derivative instruments.

The table below summarizes the changes in elements included in other comprehensive (loss) income:

	Nine Months Ended September 30,	
	2021	2020
Change in unrealized gains on AFS securities		
Net (decrease) increase in unrealized gains on AFS securities	**$ (51,771)**	$ 86,647
Net change in unrealized gains on AFS securities	**$ (51,771)**	$ 86,647
Change in postretirement benefit plans		
Amounts amortized into net periodic expense:		
Amortization of prior service credits	**(58)**	(59)
Net change in postretirement benefit plans	**(58)**	(59)
Change in cash flow derivative instruments		
Net decrease (increase) in unrealized losses on cash flow derivative instruments	**33,211**	(73,910)
Reclassification of losses recognized in interest expense	**178**	8,982
Net change in cash flow derivative instruments	**33,389**	(64,928)
Other comprehensive (loss) income	**$ (18,440)**	$ 21,660

FINANCIAL CONDITION

Loan Portfolio

Gross loan volume at September 30, 2021, was $24.27 billion, an increase of $2.44 billion, or 11.19%, compared to $21.82 billion at December 31, 2020. The $2.31 billion increase in direct notes receivable was due to growth at the affiliated associations resulting from the associations' retail customers taking advantage of the low-interest rate environment, primarily in the real estate mortgage sector, and strong economic conditions within the district's chartered territory. The capital markets loan portfolio also increased from year-end by $137.3 million, primarily in the real estate mortgage sector.

The bank's capital markets loan portfolio, also referred to as the participations purchased loan portfolio, predominantly includes participations, syndications and purchased whole loans, along with other financing structures within our lending authorities. In addition to purchasing loans from our district associations, which may exceed their hold limits, the bank seeks the purchase of participations and syndications originated outside of the district's territory by other System institutions, commercial banks and other lenders. These loans may be held as earning assets of the bank or sub-participated to the associations or to other System entities.

The bank has purchased loan participations and Federal Agricultural Mortgage Corporation (Farmer Mac) guaranteed agricultural mortgage-backed securities (AMBS) from associations in Capitalized Participation Pool (CPP) transactions. CPP loans held at September 30, 2021, totaled $86.1 million and were included in loans on the balance sheet. The balance of the AMBS CPP was $15.9 million at September 30, 2021, and was included in investment securities on the balance sheet.

Farmer Mac is a government-sponsored enterprise and is examined and regulated by the FCA. It provides a secondary market for agricultural and rural home mortgage loans that meet certain underwriting standards. Farmer Mac is authorized to provide loan guarantees and to be a direct pooler of agricultural mortgage loans. Farmer Mac is owned by both System and non-System investors, and its board of directors has both System and non-System representation. Farmer Mac is not liable for any debt or obligation of any System institution and no System institution other than Farmer Mac is liable for any debt or obligation of Farmer Mac.

The bank may also purchase loans from district associations in Non-Capitalized Participation Pool (NCPP) transactions. During the three and nine months ended September 30, 2021, the bank purchased $73.6 million in loan participations from a district association in an NCPP transaction which resulted in net stock retirements of $1.5 million. The NCPP loans' balance was $159.5 million at September 30, 2021, and was included in loans on the balance sheet.

Loans classified under the Farm Credit Administration's Uniform Loan Classification System as either acceptable or other assets especially mentioned were 99.8% of total loans and accrued interest at September 30, 2021, compared to 100.0% at December 31, 2020. During 2021, the bank changed the classification of loans to one other financing institution (OFI) from acceptable to other assets especially mentioned. No allowance for credit losses was necessary from the downgraded OFI loans.

The table below summarizes the balances of the bank's nonperforming assets at September 30, 2021, compared to the balances at December 31, 2020:

			Change	
	September 30, 2021	December 31, 2020	$	%
Nonaccrual loans	**$ 6,507**	$ 1,341	$ 5,166	385.23 %
Accruing loans past due 90 days or more	**—**	—	—	—
Accruing formally restructured loans	**2,317**	2,369	(52)	(2.20)
Total nonperforming assets	**$ 8,824**	$ 3,710	$ 5,114	137.84 %

Nonaccrual loans at September 30, 2021, reflect the designation of a limited number of electric utility loans moving to nonaccrual in 2021, due to doubt in borrower repayment capacity. The bank recorded specific reserves totaling $1.4 million for these loans. There were no loans 90 days or more past due but still accruing at September 30, 2021. At September 30, 2021, and December 31, 2020, the bank did not have any other property owned (OPO).

Impaired loans, consisting of nonaccrual loans, accruing formally restructured loans, and loans past due 90 days or more and still accruing interest, constituted 4 basis points of loans at September 30, 2021, and 2 basis points at December 31, 2020.

At September 30, 2021, the bank had reserves for credit losses totaling $14.7 million, with an allowance for loan losses of $13.0 million and a reserve for credit losses on unfunded commitments of $1.7 million, related to the bank's capital markets loan portfolio. The allowance for loan losses of $13.0 million equated to 5 basis points of total loans outstanding and 19 basis points of capital market loans outstanding. The $1.7 million reserve for losses on unfunded commitments predominantly included a general reserve for losses on unused loan commitments and for losses on letters of credit, representing management's estimate of probable credit losses related to unfunded commitments. In addition, the reserve for credit losses included $3.3 million in qualitative general reserves due to uncertainty from the COVID-19 pandemic within the following sectors: beef cattle, dairy, other livestock production and processing, oil and gas, forestry and wood processing, other food and kindred products, and groceries and related products. At September 30, 2021, there was no reserve for credit losses associated with the direct note portfolio.

The allowance for loan losses and reserve for credit losses as a percentage of impaired loans was 166.34% at September 30, 2021, compared to 311.11% at December 31, 2020.

Liquidity and Funding Sources

The bank's primary source of liquidity comes from its ability to issue Systemwide Debt Securities, which are the general unsecured joint and several obligations of the System banks. The bank continually raises funds in the debt markets to support its mission, to repay maturing Systemwide Debt Securities, and to meet other obligations. As a secondary source of liquidity, the bank maintains an investment portfolio composed primarily of high-quality liquid securities. The securities provide a stable source of income for the bank, and their high quality ensures the portfolio can quickly be converted to cash should the need arise.

Cash, federal funds sold, overnight investments and investment securities totaled $6.60 billion, or 21.06%, of total assets at September 30, 2021, compared to $5.88 billion, or 20.85%, at December 31, 2020. At September 30, 2021, the bank's cash balance was $27.2 million, of which $9.6 million was held at the Federal Reserve Bank.

Each bank is required to maintain a minimum of 90 days of liquidity coverage on a continuous basis. The days of liquidity measurement refers to the number of days that maturing debt could be funded with eligible cash and investment securities. At September 30, 2021, the bank exceeded all applicable regulatory liquidity requirements and had 175 days of liquidity.

Investments

The bank's investments are all considered available for sale, and include a liquidity portfolio and a portfolio of other investments. The liquidity portfolio had a fair value of $6.37 billion at September 30, 2021, and consisted primarily of federal agency collateralized mortgage-backed securities (MBS), corporate debt, agency-guaranteed debt, U.S. Treasury securities and asset-backed securities (ABS). The majority of the liquidity portfolio's MBS includes Government National Mortgage Association (GNMA), Federal National Mortgage Association (FNMA) and Federal Home Loan Mortgage Corporation (FHLMC) securities. The bank's other investments had a fair value of $15.9 million at September 30, 2021, and consisted of Farmer Mac AMBS purchased from district associations. The Farmer Mac securities are backed by loans originated by the associations.

The following table summarizes the bank's available-for-sale liquidity portfolio holdings:

	September 30, 2021		December 31, 2020	
	Amortized Cost	**Fair Value**	Amortized Cost	Fair Value
Agency-guaranteed debt	**$ 92,478**	**$ 94,115**	$ 111,760	$ 114,379
Commercial paper	**—**	**—**	49,990	49,991
Corporate debt	**217,888**	**221,261**	279,024	284,832
Federal agency collateralized mortgage-backed securities:				
GNMA	**2,628,999**	**2,632,438**	1,959,146	1,996,574
FNMA and FHLMC	**2,633,767**	**2,653,135**	2,421,854	2,456,080
U.S. Treasury securities	**600,515**	**600,338**	426,451	426,453
Asset-backed securities	**171,812**	**172,731**	196,231	196,394
Total liquidity investments	**$ 6,345,459**	**$ 6,374,018**	$ 5,444,456	$ 5,524,703

The bank's other investments portfolio consisted of Farmer Mac AMBS securities as follows:

	September 30, 2021		December 31, 2020	
	Amortized Cost	**Fair Value**	Amortized Cost	Fair Value
Agricultural mortgage-back securities	**$ 16,229**	**$ 15,907**	$ 23,704	$ 23,464

FCA regulations also define eligible investments by specifying credit criteria and percentage of investment portfolio limit for each investment type. If an investment no longer meets the eligibility criteria, the investment becomes ineligible for inclusion in the liquidity portfolio. At September 30, 2021, the bank had no investments which were ineligible for liquidity purposes.

Capital Resources

At September 30, 2021, the bank's capital totaled $2.12 billion and consisted of $750.0 million of Class B noncumulative subordinated perpetual preferred stock, $356.8 million of capital stock, $1.06 billion of retained earnings and $47.3 million of accumulated other comprehensive loss. The capital balance reflected an increase of $125.1 million from December 31, 2020, due primarily to net income of $186.8 million, offset by $34.8 million in preferred stock dividends accrued, $5.2 million in patronage distributions, a $3.2 million retirement of capital stock and an $18.4 million increase in other comprehensive losses. The balance in accumulated other comprehensive loss of $47.3 million resulted from a $51.8 million decrease in unrealized gains on investments and $58 thousand in accumulated amortization of other postretirement benefits, offset by a $33.4 million decrease in unrealized losses on cash flow derivative instruments. The rise in interest rates on fixed-rate products drove a decrease in the unrealized gains on investments and a decrease in the unrealized losses on the cash flow derivative products. Payment of 2020 patronage in January 2021 resulted in a reduction in the patronage liability at September 30, 2021.

FCA regulations require the bank to maintain minimum ratios, including the capital conservation buffers, for various regulatory capital ratios. At September 30, 2021, the bank exceeded all regulatory capital requirements including the capital conservation buffers.

The following table reflects the bank's regulatory capital ratios as of:

	September 30, 2021	December 31, 2020	Total Regulatory Requirements Including Capital Conservation Buffers
Common equity tier 1 ratio	**9.52 %**	9.92 %	7.00 %
Tier 1 capital ratio	**15.27**	16.07	8.50
Total capital ratio	**15.36**	16.15	10.50
Permanent capital ratio	**15.28**	16.08	7.00
Tier 1 leverage ratio	**6.49**	7.11	5.00
UREE leverage ratio	**2.69**	2.99	1.50

RATING AGENCY ACTIONS

Fitch Ratings Actions

On September 10, 2021, Fitch Ratings affirmed the bank's long-term and short-term issuer default ratings (IDRs) at "AA-" and "F1+," respectively, with a stable outlook. The bank's noncumulative perpetual preferred stock was rated "BBB+." Based on its sovereign support assessment, Fitch assigned a support rating of "1" and a support rating floor of "AA-."

Moody's Investors Service Rating Actions

On July 9, 2021, Moody's Investors Service affirmed the bank's issuer rating at "Aa3," its noncumulative preferred stock rating at "Baa1 (hyb)," and its "a1" baseline credit assessment (BCA), with a stable outlook.

DERIVATIVE PRODUCTS

Derivative products are a part of the bank's interest rate risk management process and are used to manage interest rate and liquidity risks and to lower the overall cost of funds. The bank does not hold or enter into derivative transactions for trading purposes. The aggregate notional amount of the bank's derivative products was $970.0 million at September 30, 2021, which consisted of cash flow hedges, compared to $1.02 billion at December 31, 2020, which consisted of fair value and cash flow hedges. At September 30, 2021, the notional amount of cleared cash flow hedges was $500.0 million, with outstanding exposure of $45.3 million and collateral posted of $10.5 million and $46.2 million in initial and variation margins, respectively. Cleared derivatives require the payment of initial and variation margin as a protection against default. At September 30, 2021, bilateral and cleared counterparties' credit exposure to the bank was $12.1 million, compared to $17.0 million at December 31, 2020. The bank in total posted $63.4 million and $91.3 million of cash as collateral at September 30, 2021, and December 31, 2020, respectively, and no counterparty had been required to post collateral for either period.

LIBOR TRANSITION

In July 2017, the United Kingdom's Financial Conduct Authority, the authority regulating the London Inter-Bank Offered Rate (LIBOR) announced that it will stop persuading or compelling banks to submit rates for the calculation of the LIBOR after 2021. Since this announcement, central banks around the world, including the Federal Reserve, have commissioned working groups with the goal of finding suitable replacements for LIBOR. In the United States, efforts to identify a set of alternative U.S. dollar reference interest rates include proposals by the Alternative Reference Rates Committee (ARRC) of the Federal Reserve Board and the Federal Reserve Bank of New York. Specifically, the ARRC has proposed the Secured Overnight Financing Rate (SOFR) as the recommended alternative to LIBOR. SOFR is based on a broad segment of the overnight Treasury repurchase market and is a broad measure of the cost of borrowing cash overnight collateralized by Treasury securities. The bank and its affiliated associations are currently evaluating the impacts of a potential phase-out of the LIBOR benchmark interest rate, including the possibility of using SOFR as an alternative to LIBOR. The transition from LIBOR to SOFR is expected to be complex and to include the development of term and credit adjustments to minimize, to the extent possible, discrepancies between LIBOR and SOFR. Uncertainty as to the nature of such potential changes, alternative reference rates or other reforms may adversely affect the trading market for LIBOR-based instruments, including certain of the Farm Credit Systemwide debt securities, the bank's borrowings, loans, investments, derivatives, and other bank assets and liabilities that are indexed to LIBOR. On September 11, 2018, the FCA issued guidance to System institutions on planning and preparing for the expected phase-out of LIBOR. Based on the guidance, System institutions were to develop a transition plan defining an orderly roadmap of actions that will reduce LIBOR exposures over time and prepare for the phase-out. The bank established a LIBOR Workgroup, with cross-functional representation from the finance, operations, credit and legal departments. The LIBOR Workgroup is progressing in implementing its transition plan to an alternative benchmark rate.

On December 18, 2020, the FCA posted an informational memorandum providing guidance to Farm Credit System institutions on the transition away from LIBOR. The guidance supplements the informational memorandum issued on September 11, 2018, on planning for the LIBOR phaseout. The informational memorandum summarizes the ICE Benchmark Administration's (IBA) proposal to cease publication of the one-week and two-month U.S. dollar LIBOR tenors by year-end 2021 while continuing to publish the remaining, more heavily used, LIBOR tenors until June 30, 2023. The FCA agreed with a joint statement by the federal banking regulatory agencies that the proposal will allow most legacy LIBOR contracts to mature before LIBOR disruptions occur and stressed the importance of having robust fallback language.

The following is a summary of principal balances on variable-rate financial instruments with LIBOR exposure at September 30, 2021. Exposure to these instruments is limited to the bank in this illustration:

(in thousands)	Due in 2021	Due in 2022	Due by June 30, 2023	Due after June 30, 2023	Total
Assets					
Loans	$ 177,117	$ 258,452	$ 126,072	$ 3,353,263	$ 3,914,904
Investment securities	—	25,000	2,836	865,041	892,877
Total assets	$ 177,117	$ 283,452	$ 128,908	$ 4,218,304	$ 4,807,781
Liabilities and shareholders' equity					
Bonds and notes, net	$ 1,000,000	$ —	$ —	$ —	$ 1,000,000
Preferred stock	—	—	—	400,000	400,000
Total liabilities and shareholders' equity	$ 1,000,000	$ —	$ —	$ 400,000	$ 1,400,000

Note: Included in this table are preferred stock issuances that currently have fixed dividend rates but convert to LIBOR-indexed variable rates in the future. The preferred stock is perpetual and may be redeemed in 2023 or thereafter. For additional information regarding preferred stock, see Note 11 in the 2020 Annual Report.

(in thousands)	Due in 2021	Due in 2022	Due by June 30, 2023	Due after June 30, 2023	Total
Derivatives (notional amount)	$ —	$ 30,000	$ 125,000	$ 565,000	$ 720,000

The following is a summary of variable-rate financial instruments indexed to SOFR as of September 30, 2021:

(in thousands)	September 30, 2021
Assets	
Loans	**$ 339,320**
Investment securities	**564,287**
Total assets	**$ 903,607**
Liabilities and shareholders' equity	
Bonds and notes, net	**$ 4,800,000**
Preferred stock	—
Total liabilities and shareholders' equity	**$ 4,800,000**
Derivatives (notional amount)	**$ 250,000**

REGULATORY MATTERS

At September 30, 2021, there were no district associations under written agreements with the Farm Credit Administration.

On January 5, 2021, the FCA posted an informational memorandum providing guidance to the Farm Credit System on managing challenges associated with COVID-19. The informational memorandum provided supplements on flood insurance requirements, consumer financial protection, and electronic delivery of borrower rights notices. On January 12, 2021, the FCA posted a supplement to its January 5, 2021, informational memorandum, which provided updated guidance to Farm Credit System institutions on issues related to COVID-19. The supplement covers regulatory capital requirements for Paycheck Protection Program loans. On January 28, 2021, the FCA posted a supplement to its January 5, 2021, informational memorandum, which provided updated guidance to Farm Credit System institutions on issues related to COVID-19. The supplement discusses matters related to association annual meetings and elections during the 2021 calendar year.

On February 5, 2021, the FCA posted an informational memorandum on maintaining and using stockholder lists. The informational memorandum provides institutions with guidance on maintaining the lists and using them to establish who should receive voting and financial information.

On June 30, 2021, the FCA posted an advance notice of proposed rulemaking to seek public comments on how to amend or restructure bank liquidity regulations. The FCA is considering whether to amend the existing liquidity regulatory framework so banks can better withstand crises that adversely impact liquidity. The comment period was extended to November 27, 2021.

On August 26, 2021, the FCA published a proposed rule in the Federal Register on defining and establishing risk-weightings for high-volatility commercial real estate (HVCRE) exposures. The comment period ends on January 24, 2022.

On September 9, 2021, the FCA adopted a final rule on the tier 1/tier 2 capital framework. The rule clarifies the regulations, simplifies certain requirements, and changes the lending and leasing limit base calculation to be computed using total capital instead of permanent capital. It also codifies guidance provided in FCA Bookletter 068. On October 1, 2021, the FCA published the final rule on the tier 1/tier 2 capital framework in the Federal Register. The final rule will become effective on January 1, 2022, or 30 days after publication in the Federal Register during which either or both houses of Congress are in session, whichever is later.

Report of Management

The undersigned certify that we have reviewed the September 30, 2021, quarterly report of the Farm Credit Bank of Texas, that the report has been prepared in accordance with all applicable statutory or regulatory requirements, and that the information included herein is true, accurate and complete to the best of our knowledge and belief.

James F. Dodson
Chair of the Board

Amie Pala
Chief Executive Officer

Brandon Blaut
Senior Vice President, Chief Financial Officer

November 9, 2021

Controls and Procedures

As of September 30, 2021, management of the Farm Credit Bank of Texas (bank) carried out an evaluation with the participation of the bank's management, including the chief executive officer (CEO) and senior vice president, chief financial officer (CFO), of the effectiveness of the design and operation of the respective disclosure controls and procedures(1) with respect to this quarterly report. This evaluation is based on testing of the design and effectiveness of key internal controls, certifications and other information furnished by the CEO and CFO of the bank, as well as incremental procedures performed by the bank. Based upon and as of the date of the bank's evaluation, the CEO and the CFO concluded that the disclosure controls and procedures are effective in alerting them on a timely basis of any material information relating to the bank that is required to be disclosed by the bank in the quarterly information statement it files or submits to the Farm Credit Administration.

There have been no significant changes in the bank's internal control over financial reporting(2) that occurred during the quarter ended September 30, 2021, that have materially affected, or are reasonably likely to materially affect, the bank's internal control over financial reporting.

Amie Pala
Chief Executive Officer

Brandon Blaut
Senior Vice President, Chief Financial Officer

November 9, 2021

(1) For purposes of this discussion, ''disclosure controls and procedures'' are defined as controls and procedures of the bank that are designed to ensure that the financial information required to be disclosed by the bank in this quarterly report is recorded, processed, summarized and reported within the time periods specified under the rules and regulations of the Farm Credit Administration.

(2) For purposes of this discussion, ''internal control over financial reporting'' is defined as a process designed by, or under the supervision of, the bank's principal executive officer and principal financial officer, or persons performing similar functions, and effected by the bank's boards of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the bank's financial statements for external purposes in accordance with generally accepted accounting principles and 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 bank; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the bank's financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the bank are being made only in accordance with authorizations of management and directors of the bank; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the bank's assets that could have a material effect on the bank's financial statements.

CERTIFICATION

I, Amie Pala, chief executive officer of Farm Credit Bank of Texas (bank), a federally chartered instrumentality under the Farm Credit Act of 1971, as amended, certify that:

1. I have reviewed this quarterly report of the bank.
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 bank as of, and for, the periods presented in this report.
4. The bank's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures and internal control over financial reporting for the bank 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 bank is made known to us, 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 bank'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 bank's internal control over financial reporting that occurred during the bank's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the bank's internal control over financial reporting.
5. The bank's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the bank's auditors and the bank's audit committee:
   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 bank'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 bank's internal control over financial reporting.

Amie Pala

Amie Pala
Chief Executive Officer

November 9, 2021

CERTIFICATION

I, Brandon Blaut, senior vice president, chief financial officer of Farm Credit Bank of Texas (bank), a federally chartered instrumentality under the Farm Credit Act of 1971, as amended, certify that:

1. I have reviewed this quarterly report of the bank.
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 bank as of, and for, the periods presented in this report.
4. The bank's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures and internal control over financial reporting for the bank 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 bank is made known to us, 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 bank'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 bank's internal control over financial reporting that occurred during the bank's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the bank's internal control over financial reporting.
5. The bank's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the bank's auditors and the bank's audit committee:
   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 bank'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 bank's internal control over financial reporting.

Brandon Blaut
Senior Vice President, Chief Financial Officer

November 9, 2021

Balance Sheets

(dollars in thousands)	September 30, 2021 (Unaudited)	December 31, 2020
Assets		
Cash	**$ 27,235**	$ 128,302
Federal funds sold and overnight investments	**184,640**	208,229
Investment securities	**6,389,925**	5,548,167
Loans	**24,267,130**	21,824,201
Less allowance for loan losses	**12,975**	9,608
Net loans	**24,254,155**	21,814,593
Accrued interest receivable	**67,760**	64,984
Premises and equipment, net	**150,776**	142,002
Other assets	**279,074**	321,228
Total assets	**$ 31,353,565**	$ 28,227,505
Liabilities and shareholders' equity		
Liabilities		
Bonds and notes, net	**$ 28,998,011**	$ 25,873,429
Accrued interest payable	**63,130**	58,595
Reserve for credit losses	**1,703**	1,934
Preferred stock dividends payable	**11,600**	11,600
Patronage payable	—	37,487
Other liabilities	**162,525**	252,927
Total liabilities	**$ 29,236,969**	$ 26,235,972
Commitments and contingencies (Note 5)		
Shareholders' equity		
Preferred stock	**750,000**	750,000
Capital stock	**356,757**	359,988
Allocated retained earnings	**59,859**	59,765
Unallocated retained earnings	**997,247**	850,607
Accumulated other comprehensive loss	**(47,267)**	(28,827)
Total shareholders' equity	**2,116,596**	1,991,533
Total liabilities and shareholders' equity	**$ 31,353,565**	$ 28,227,505

The accompanying notes are an integral part of these financial statements.

Statements of Comprehensive Income

(unaudited)

(dollars in thousands)	Quarter Ended September 30, 2021	Quarter Ended September 30, 2020	Nine Months Ended September 30, 2021	Nine Months Ended September 30, 2020
Interest Income				
Loans	**$ 145,595**	$ 146,936	**$ 427,326**	$ 466,583
Investment securities	**16,984**	21,344	**53,619**	74,521
Total interest income	**162,579**	168,280	**480,945**	541,104
Interest Expense				
Bonds and notes	**75,153**	78,137	**209,278**	296,860
Net interest income	**87,426**	90,143	**271,667**	244,244
Provision for credit losses	**419**	335	**3,060**	921
Net interest income after provision for credit losses	**87,007**	89,808	**268,607**	243,323
Noninterest Income				
Patronage income	**3,751**	2,551	**9,319**	7,788
Fees for services to associations	**503**	365	**3,062**	2,643
Fees for loan-related services	**2,970**	5,241	**13,246**	11,722
Refunds from Farm Credit System Insurance Corporation (FCSIC)	**—**	—	**—**	2,380
Other income, net	**909**	1,063	**4,308**	1,786
Total noninterest income	**8,133**	9,220	**29,935**	26,319
Noninterest Expense				
Salaries and employee benefits	**13,069**	11,243	**38,903**	33,775
Occupancy and equipment	**7,292**	6,709	**24,088**	21,419
FCSIC premiums	**3,843**	2,571	**11,530**	6,250
Other components of net periodic postretirement benefit cost	**67**	85	**201**	253
Other operating expenses	**12,477**	10,604	**37,029**	31,491
Total noninterest expense	**36,748**	31,212	**111,751**	93,188
Net Income	**58,392**	67,816	**186,791**	176,454
Other comprehensive (loss) income				
Change in unrealized (loss) gain on investments	**(21,244)**	(2,503)	**(51,771)**	86,647
Change in postretirement benefit plans	**(19)**	(19)	**(58)**	(59)
Change in cash flow derivative instruments	**2,893**	5,617	**33,389**	(64,928)
Total other comprehensive (loss) income	**(18,370)**	3,095	**(18,440)**	21,660
Comprehensive Income	**$ 40,022**	$ 70,911	**$ 168,351**	$ 198,114

The accompanying notes are an integral part of these financial statements.

Statements of Changes in Shareholders' Equity

(unaudited)

(dollars in thousands)	Preferred Stock	Capital Stock	Retained Earnings Allocated	Retained Earnings Unallocated	Accumulated Other Comprehensive Loss	Total Shareholders' Equity
Balance at December 31, 2019	$ 700,000	$ 335,262	$ 52,451	$ 808,101	$ (51,631)	$ 1,844,183
Net income	—	—	—	176,454	—	176,454
Other comprehensive income	—	—	—	—	21,660	21,660
Capital stock and allocated retained earnings issued	—	813	—	—	—	813
Capital stock and allocated retained earnings retired	—	(2,378)	—	—	—	(2,378)
Preferred stock issued	350,000	—	—	—	—	350,000
Preferred stock retired	(300,000)	—	—	—	—	(300,000)
Issuance costs on preferred stock	—	—	—	(3,949)	—	(3,949)
Preferred stock dividends	—	—	—	(33,206)	—	(33,206)
Patronage distributions						
Cash	—	—	—	(6,165)	—	(6,165)
Shareholders' equity	—	—	1	(1)	—	—
Balance at September 30, 2020	$ 750,000	$ 333,697	$ 52,452	$ 941,234	$ (29,971)	$ 2,047,412
Balance at December 31, 2020	**$ 750,000**	**$ 359,988**	**$ 59,765**	**$ 850,607**	**$ (28,827)**	**$ 1,991,533**
Net income	**—**	**—**	**—**	**186,791**	**—**	**186,791**
Other comprehensive loss	**—**	**—**	**—**	**—**	**(18,440)**	**(18,440)**
Capital stock and allocated retained earnings retired	**—**	**(3,231)**	**—**	**—**	**—**	**(3,231)**
Issuance costs on preferred stock	**—**	**—**	**—**	**(17)**	**—**	**(17)**
Preferred stock dividends	**—**	**—**	**—**	**(34,800)**	**—**	**(34,800)**
Patronage distributions						
Cash	**—**	**—**	**—**	**(5,240)**	**—**	**(5,240)**
Shareholders' equity	**—**	**—**	**94**	**(94)**	**—**	**—**
Balance at September 30, 2021	**$ 750,000**	**$ 356,757**	**$ 59,859**	**$ 997,247**	**$ (47,267)**	**$ 2,116,596**

The accompanying notes are an integral part of these financial statements.

Statements of Cash Flows

(unaudited)

(dollars in thousands)	Nine Months Ended September 30, 2021	2020
Cash Flows From Operating Activities		
Net income	**$ 186,791**	$ 176,454
Reconciliation of net income to net cash provided by operating activities		
Provision for credit losses	**3,060**	921
Depreciation and amortization on premises and equipment	**9,740**	8,088
Discount accretion on loans	**2,325**	279
Amortization and accretion on debt instruments	**15,020**	39,467
Premium amortization on investments	**7,720**	5,379
Gain on sale of loans	**(299)**	(2,313)
Allocated equity patronage from System bank	**(2,757)**	(2,745)
Loss (gain) on sales of premises and equipment	**56**	(51)
(Increase) decrease in accrued interest receivable	**(2,776)**	11,742
Decrease in other assets, net	**5,104**	15,899
Increase (decrease) in accrued interest payable	**4,534**	(23,498)
Decrease in other liabilities, net	**(8,789)**	(39,069)
Net cash provided by operating activities	**219,729**	190,553
Cash Flows From Investing Activities		
Net decrease in federal funds sold and repurchase agreements	**23,589**	88,901
Investment securities		
Purchases	**(2,903,994)**	(1,885,635)
Proceeds from maturities, calls and prepayments	**2,002,745**	1,745,054
Increase in loans, net		
Charge-offs on loans	**—**	2,808
All other increases in loans, net	**(2,498,387)**	(1,561,212)
Proceeds from sales of loans	**4,868**	111,051
Proceeds from sales of premises and equipment	**62**	97
Expenditures for premises and equipment	**(18,631)**	(35,549)
Investments/distributions in other earning assets	**(3,578)**	(372)
Net cash used in investing activities	**(3,393,326)**	(1,534,857)
Cash Flows From Financing Activities		
Bonds and notes issued	**29,342,512**	31,593,048
Bonds and notes retired	**(26,232,949)**	(30,191,365)
Decrease (increase) in cash collateral posted with a counterparty	**43,742**	(46,041)
Preferred stock issued	**—**	350,000
Preferred stock retired	**—**	(300,000)
Issuance costs on preferred stock	**(17)**	(3,949)
Capital stock issued	**—**	813
Capital stock retired and allocated retained earnings distributed	**(3,231)**	(2,378)
Cash dividends on preferred stock	**(34,800)**	(53,230)
Cash patronage distributions paid	**(42,727)**	(29,761)
Net cash provided by financing activities	**3,072,530**	1,317,137
Net decrease in cash	**(101,067)**	(27,167)
Cash at beginning of year	**128,302**	47,606
Cash at End of Quarter	**$ 27,235**	$ 20,439
Supplemental Schedule of Noncash Investing and Financing Activities		
Net (decrease) increase in unrealized gains on investment securities	**$ (51,771)**	$ 86,647
Preferred stock dividends payable	**11,600**	11,600
Patronage distribution stock adjustment	**94**	1
Right-of-use asset recognized in exchange for operating lease liabilities	**—**	484
Supplemental Schedule of Noncash Increase in Bonds and Notes Related to Hedging Activities	**$ —**	$ 351
Supplemental Information		
Interest paid	**$ 204,743**	$ 320,357

The accompanying notes are an integral part of these financial statements.

Notes to Financial Statements

Unaudited (dollar amounts in thousands, except as otherwise noted)

NOTE 1 — ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

The accompanying unaudited financial statements have been prepared in accordance with generally accepted accounting principles in the U.S. (GAAP) for interim financial information. Accordingly, they do not include all of the disclosures required by GAAP for annual financial statements and should be read in conjunction with the audited financial statements for the year ended December 31, 2020, as contained in the 2020 Annual Report to shareholders (Annual Report).

In the opinion of management, the unaudited financial information is complete and reflects all adjustments, consisting of normal recurring adjustments, necessary for a fair statement of results for the interim periods. The preparation of the financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates. The results of operations for interim periods are not necessarily indicative of the results to be expected for the twelve months ending December 31, 2021. Descriptions of the significant accounting policies are included in the Annual Report. In the opinion of management, these policies and the presentation of the interim financial condition and results of operations conform with GAAP and prevailing practices within the banking industry.

The bank and its affiliated associations (Texas District) are part of the federally chartered Farm Credit System (System). The bank provides funding to district associations, which, in turn, provide credit to their borrower-members. At September 30, 2021, the bank provided financing to 14 district associations and certain other financing institutions.

In March 2020, the Financial Accounting Standards Board (FASB) issued guidance entitled "Facilitation of the Effects of Reference Rate Reform on Financial Reporting." The guidance provided optional expedients and exceptions for applying generally accepted accounting principles to contracts, hedging relationships and other transactions affected by reference rate reform. The guidance simplified the accounting evaluation of contract modifications that replace a reference rate affected by reference rate reform and contemporaneous modifications of other contracts related to the replacement of the reference rate. With respect to hedge accounting, the guidance allowed amendment of formal designation and documentation of hedging relationships in certain circumstances as a result of reference rate reform and provides additional expedients for different types of hedges, if certain criteria are met. The optional amendments were effective as of March 12, 2020, through December 31, 2022. The guidance is to be applied on a prospective basis with no retrospective impact. The bank adopted the optional practical expedients available under the guidance to modifications of its loan contracts and certain derivatives contracts related to the LIBOR transition in the fourth quarter of 2020. The impact of the adoption was not material to the bank's financial condition or results of operations.

In January 2021, the FASB issued an update to the March 2020 guidance whereby certain derivative instruments may be modified to change the rate used for margining, discounting, or contract price alignment. The optional amendments are effective as of March 12, 2020, through December 31, 2022 and may be applied on a full retrospective basis within the effective period, or on a prospective basis with no retrospective impact. The bank adopted the optional amendments in the first quarter of 2021. The impact of the adoption was not material to the bank's financial condition or results of operations.

In June 2016, the FASB issued guidance entitled "Measurement of Credit Losses on Financial Instruments." The guidance replaces the current incurred loss impairment methodology with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to develop credit loss estimates. Credit losses relating to available-for-sale securities would also be recorded through an allowance for credit losses. For public business entities that are not U.S. Securities and Exchange Commission filers, this guidance was to become effective for interim and annual periods beginning after December 15, 2020, with early application permitted. In November 2019, the FASB issued an update that amends the mandatory effective date for this guidance for certain institutions. The change resulted from a change in the effective date philosophy that extends and simplifies the adoption by staggering the dates between large public entities and other entities. As a result of the change, the new credit loss standard, for those institutions qualifying for the delay, becomes effective for interim and annual reporting periods beginning after December 15, 2022, with early adoption permitted. The bank qualifies for the delay in the adoption date and continues to evaluate the impact of adoption on the bank's financial condition and its results of operations.

NOTE 2 — INVESTMENT SECURITIES

Available-for-Sale Investments

The bank's available-for-sale investments include a liquidity portfolio and a portfolio of other investments. The liquidity portfolio consists primarily of agency-guaranteed debt instruments, mortgage-backed securities (MBS), U.S. Treasury securities, asset-backed securities (ABS) and corporate debt. The majority of the liquidity portfolio's MBS were federal agency-guaranteed collateralized MBS, including Government National Mortgage Association (GNMA), Federal National Mortgage Association (FNMA) and Federal Home Loan Mortgage Corporation (FHLMC) securities. The bank's other investments portfolio consists of Federal Agricultural Mortgage Corporation (Farmer Mac) guaranteed agricultural mortgage-backed securities (AMBS) purchased from district associations.

A summary of the amortized cost and fair value of the available-for-sale investment securities at September 30, 2021, and December 31, 2020, is included in the following tables.

Investments in the available-for-sale liquidity portfolio at September 30, 2021:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Weighted Average Yield
Agency-guaranteed debt	$ 92,478	$ 1,647	$ (10)	$ 94,115	1.60 %
Corporate debt	217,888	3,555	(182)	221,261	1.53
Federal agency collateralized mortgage-backed securities:					
GNMA	2,628,999	20,192	(16,753)	2,632,438	1.44
FNMA and FHLMC	2,633,767	24,934	(5,566)	2,653,135	1.03
U.S. Treasury securities	600,515	18	(195)	600,338	0.21
Asset-backed securities	171,812	964	(45)	172,731	0.75
Total liquidity investments	$ 6,345,459	$ 51,310	$ (22,751)	$ 6,374,018	1.14 %

Investments in the available-for-sale other investments portfolio at September 30, 2021:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Weighted Average Yield
Agricultural mortgage-backed securities	$ 16,229	$ 18	$ (340)	$ 15,907	4.22 %

Investments in the available-for-sale liquidity portfolio at December 31, 2020:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Weighted Average Yield
Agency-guaranteed debt	$ 111,760	$ 2,633	$ (14)	$ 114,379	1.61 %
Commercial paper	49,990	1	—	49,991	0.22
Corporate debt	279,024	5,808	—	284,832	1.69
Federal agency collateralized mortgage-backed securities:					
GNMA	1,959,146	39,163	(1,735)	1,996,574	1.87
FNMA and FHLMC	2,421,854	34,715	(489)	2,456,080	1.20
U.S. Treasury securities	426,451	22	(20)	426,453	0.11
Asset-backed securities	196,231	457	(294)	196,394	0.68
Total liquidity investments	$ 5,444,456	$ 82,799	$ (2,552)	$ 5,524,703	1.36 %

Investments in the available-for-sale other investments portfolio at December 31, 2020:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Weighted Average Yield
Agricultural mortgage-backed securities	$ 23,704	$ 26	$ (266)	$ 23,464	4.28 %

The following tables summarize the contractual maturity, fair value, amortized cost and weighted average yield of available-for-sale liquidity investments at September 30, 2021.

Investments in the available-for-sale liquidity portfolio:

	Due in One Year Or Less	**Due After One Year Through Five Years**	**Due After Five Years Through 10 Years**	**Due After 10 Years**	**Total**
Agency-guaranteed debt	**$ —**	**$ 94,115**	**$ —**	**$ —**	**$ 94,115**
Corporate debt	**75,693**	**145,568**	**—**	**—**	**221,261**
Federal agency collateralized mortgage-backed securities:					
GNMA	**—**	**—**	**52,547**	**2,579,891**	**2,632,438**
FNMA and FHLMC	**809**	**127,719**	**869,290**	**1,655,317**	**2,653,135**
U.S. Treasury securities	**101,133**	**499,205**	**—**	**—**	**600,338**
Asset-backed securities	**1,727**	**44,478**	**52,316**	**74,210**	**172,731**
Total fair value	**$ 179,362**	**$ 911,085**	**$ 974,153**	**$ 4,309,418**	**$ 6,374,018**
Total amortized cost	**$ 178,706**	**$ 906,198**	**$ 963,404**	**$ 4,297,151**	**$ 6,345,459**
Weighted average yield	**0.76%**	**0.65%**	**0.89%**	**1.32%**	**1.14%**

Investments in the available-for-sale other investments portfolio:

	Due After One Year Through Five Years	**Due After Five Years Through 10 Years**	**Total**
Fair value of agricultural mortgage-backed securities	**$ 11,828**	**$ 4,079**	**$ 15,907**
Total amortized cost	**$ 12,031**	**$ 4,198**	**$ 16,229**
Weighted average yield	**4.18%**	**4.34%**	**4.22%**

Other-Than-Temporarily Impaired Investments Evaluation

The following table shows the fair value and gross unrealized losses for investments in a loss position aggregated by investment category, and the length of time the securities have been in a continuous unrealized loss position. The continuous loss position is based on the date the impairment occurred.

	Less Than 12 Months		Greater Than 12 Months		Total	
	Fair Value	**Unrealized Losses**	**Fair Value**	**Unrealized Losses**	**Fair Value**	**Unrealized Losses**
Agency-guaranteed debt	**$ —**	**$ —**	**$ 8,337**	**$ (10)**	**$ 8,337**	**$ (10)**
Corporate debt	**24,783**	**(182)**	**—**	**—**	**24,783**	**(182)**
Federal agency collateralized mortgage-backed securities:						
GNMA	**1,486,985**	**(14,225)**	**108,935**	**(2,528)**	**1,595,920**	**(16,753)**
FNMA and FHLMC	**668,211**	**(4,903)**	**66,505**	**(663)**	**734,716**	**(5,566)**
U.S. Treasury securities	**474,212**	**(195)**	**—**	**—**	**474,212**	**(195)**
Asset-backed securities	**13,098**	**(22)**	**9,550**	**(23)**	**22,648**	**(45)**
Total	**$ 2,667,289**	**$ (19,527)**	**$ 193,327**	**$ (3,224)**	**$ 2,860,616**	**$ (22,751)**

The bank evaluates investment securities for other-than-temporary impairment (OTTI) on a quarterly basis. Impairment is considered to be other than temporary if the bank (i) intends to sell the security, (ii) is more likely than not to be required to sell the security before recovering its costs or (iii) does not expect to recover the security's entire amortized cost basis (even if it does not intend to sell). For the nine months ended September 30, 2021, and 2020, the bank did not recognize any OTTI credit losses and no securities were identified as OTTI at September 30, 2021, and 2020.

NOTE 3 — LOANS AND RESERVES FOR CREDIT LOSSES

Loans, including direct notes to district associations and other financing institutions (OFIs), and participations purchased, comprised the following categories at:

	September 30, 2021	December 31, 2020
Direct notes receivable from district associations and OFIs	**$ 17,339,348**	$ 15,033,669
Participations purchased	**6,927,782**	6,790,532
Total loans	**$ 24,267,130**	$ 21,824,201

A summary of the bank's loans by type follows:

	September 30, 2021	December 31, 2020
Direct notes receivable from district associations	**$ 17,306,950**	$ 15,002,072
Real estate mortgage	**883,664**	825,679
Production and intermediate term	**835,008**	815,698
Agribusiness		
Loans to cooperatives	**451,544**	474,133
Processing and marketing	**2,544,459**	2,566,234
Farm-related business	**194,838**	174,520
Communications	**576,610**	583,708
Energy (rural utilities)	**1,207,410**	1,200,204
Water and waste disposal	**130,716**	135,472
Rural home	**1,364**	1,801
International	**90,240**	—
Mission-related	**2,259**	2,344
Lease receivables	**9,670**	10,739
Loans to OFIs	**32,398**	31,597
Total loans	**$ 24,267,130**	$ 21,824,201

The bank's capital markets loan portfolio, also referred to as the participations purchased loan portfolio, predominantly includes participations, syndications and purchased whole loans, along with other financing structures within our lending authorities. In addition to purchasing loans from our district associations, which may exceed their hold limits, the bank seeks the purchase of participations and syndications originated outside of the district's territory by other System institutions, commercial banks and other lenders. These loans may be held as earning assets of the bank or sub-participated to the associations or other System entities.

The bank purchases or sells participation interests with other parties in order to diversify risk, manage loan volume and comply with Farm Credit Administration regulations.

The following table presents information regarding the balances of loans purchased and sold, excluding syndications, at September 30, 2021:

	Other Farm Credit Institutions		**Non-Farm Credit Institutions**		**Total**	
	Participations Purchased	**Participations Sold**	**Participations Purchased**	**Participations Sold**	**Participations Purchased**	**Participations Sold**
Real estate mortgage	$ 939,946	$ 168,251	$ 60,740	$ —	$ 1,000,686	$ 168,251
Production and intermediate term	1,636,423	917,439	25,474	6,249	1,661,897	923,688
Agribusiness	2,028,406	803,476	—	—	2,028,406	803,476
Communications	730,443	153,423	—	—	730,443	153,423
Energy (rural utilities)	1,308,533	101,086	—	—	1,308,533	101,086
Water and waste disposal	155,516	24,664	—	—	155,516	24,664
Rural home	1,364	—	—	—	1,364	—
International	127,471	37,171	—	—	127,471	37,171
Mission-related	2,257	—	—	—	2,257	—
Lease receivables	11,157	1,495	—	—	11,157	1,495
Direct note receivable from district associations	—	3,850,000	—	—	—	3,850,000
	$ 6,941,516	**$ 6,057,005**	**$ 86,214**	**$ 6,249**	**$ 7,027,730**	**$ 6,063,254**

The bank has purchased loan participations and Federal Agricultural Mortgage Corporation (Farmer Mac) guaranteed agricultural mortgage-backed securities (AMBS) from associations in Capitalized Participation Pool (CPP) transactions. As a condition of the transactions, the bank redeemed common stock in the amount of 2.00% of the par value of the loans purchased, and the associations bought bank stock equal to 8.00% of the purchased loans' par value and 1.60% of the AMBS's par value. There were no CPP purchases during the nine months ended September 30, 2021. CPP loans held at September 30, 2021, totaled $86.1 million and were included in loans on the balance sheet. The balance of the AMBS CPP was $15.9 million at September 30, 2021, and was included in investment securities on the balance sheet.

The bank may also purchase loans from district associations in Non-Capitalized Participation Pool (NCPP) transactions. As a condition of the transactions, the bank redeems common stock in the amount of 2.00% of the par value of the loans purchased. During the nine months ended September 30, 2021, the bank purchased $73.6 million in loan participations from a district association in an NCPP transaction which resulted in net stock retirements of $1.5 million. The NCPP loans balance was $159.5 million at September 30, 2021, and was included in loans on the balance sheet.

Nonperforming assets (including related accrued interest) and related credit quality statistics were as follows:

	September 30, 2021	December 31, 2020
Nonaccrual loans:		
Energy & water/waste disposal	**$ 5,951**	$ —
Real estate mortgage	**556**	1,341
Total nonaccrual loans	**6,507**	1,341
Accruing restructured loans:		
Mission-related	**2,317**	2,369
Total nonperforming assets	**$ 8,824**	$ 3,710

One credit quality indicator utilized by the bank is the Farm Credit Administration Uniform Loan Classification System that categorizes loans into five categories. The categories are defined as follows:

- Acceptable – assets expected to be fully collectible and represent the highest quality;
- Other assets especially mentioned (OAEM) – assets are currently collectible but exhibit some potential weakness;
- Substandard – assets exhibit some serious weakness in repayment capacity, equity and/or collateral pledged on the loan;
- Doubtful – assets exhibit similar weaknesses to substandard assets; however, doubtful assets have additional weaknesses in existing factors, conditions and values that make collection in full highly questionable; and
- Loss – assets are considered uncollectible.

The following table presents loans and related accrued interest classified under the Uniform Loan Classification System as a percentage of total loans and related accrued interest receivable by loan type as of:

	September 30, 2021	December 31, 2020
Real estate mortgage:		
Acceptable	**97.9 %**	99.7 %
OAEM	**2.0**	0.1
Substandard/Doubtful	**0.1**	0.2
	100.0 %	100.0 %
Production and intermediate term:		
Acceptable	**91.6 %**	91.8 %
OAEM	**8.4**	8.2
Substandard/Doubtful	**—**	—
	100.0 %	100.0 %
Agribusiness:		
Acceptable	**97.0 %**	95.7 %
OAEM	**2.0**	4.2
Substandard/Doubtful	**1.0**	0.1
	100.0 %	100.0 %
Energy & water/waste disposal:		
Acceptable	**98.1 %**	99.7 %
OAEM	**0.3**	—
Substandard/Doubtful	**1.6**	0.3
	100.0 %	100.0 %
Communications:		
Acceptable	**100.0 %**	100.0 %
OAEM	**—**	—
Substandard/Doubtful	**—**	—
	100.0 %	100.0 %
Rural home:		
Acceptable	**100.0 %**	100.0 %
OAEM	**—**	—
Substandard/Doubtful	**—**	—
	100.0 %	100.0 %
International:		
Acceptable	**100.0 %**	— %
OAEM	**—**	—
Substandard/Doubtful	**—**	—
	100.0 %	— %
Mission-related:		
Acceptable	**100.0 %**	100.0 %
OAEM	**—**	—
Substandard/Doubtful	**—**	—
	100.0 %	100.0 %
Lease receivables:		
Acceptable	**100.0 %**	100.0 %
OAEM	**—**	—
Substandard/Doubtful	**—**	—
	100.0 %	100.0 %
Direct notes to associations:		
Acceptable	**100.0 %**	100.0 %
OAEM	**—**	—
Substandard/Doubtful	**—**	—
	100.0 %	100.0 %
Loans to OFIs:		
Acceptable	**68.1 %**	100.0 %
OAEM	**31.9**	—
Substandard/Doubtful	**—**	—
	100.0 %	100.0 %
Total Loans:		
Acceptable	**99.1 %**	99.1 %
OAEM	**0.7**	0.9
Substandard/Doubtful	**0.2**	—
	100.0 %	100.0 %

The following tables provide an age analysis for the entire loan portfolio, including accrued interest and nonaccrual loans as of:

September 30, 2021	**30-89 Days Past Due**	**90 Days or More Past Due**	**Total Past Due**	**Not Past Due or Less Than 30 Days Past Due**	**Total Loans**	**Recorded Investment > 90 Days and Accruing**
Real estate mortgage	**$ 251**	**$ 556**	**$ 807**	**$ 888,786**	**$ 889,593**	**$ —**
Production and intermediate term	**—**	**—**	**—**	**838,640**	**838,640**	**—**
Agribusiness	**—**	**—**	**—**	**3,202,856**	**3,202,856**	**—**
Energy & water/waste disposal	**—**	**1,918**	**1,918**	**1,342,576**	**1,344,494**	**—**
Communications	**—**	**—**	**—**	**576,908**	**576,908**	**—**
Rural home	**—**	**—**	**—**	**1,370**	**1,370**	**—**
International	**—**	**—**	**—**	**90,330**	**90,330**	**—**
Mission-related	**—**	**—**	**—**	**2,317**	**2,317**	**—**
Lease receivables	**—**	**—**	**—**	**9,706**	**9,706**	**—**
Direct notes to associations	**—**	**—**	**—**	**17,337,316**	**17,337,316**	**—**
Loans to OFIs	**—**	**—**	**—**	**32,450**	**32,450**	**—**
Total	**$ 251**	**$ 2,474**	**$ 2,725**	**$ 24,323,255**	**$ 24,325,980**	**$ —**

December 31, 2020	30-89 Days Past Due	90 Days or More Past Due	Total Past Due	Not Past Due or Less Than 30 Days Past Due	Total Loans	Recorded Investment > 90 Days and Accruing
Real estate mortgage	$ 388	$ 1,341	$ 1,729	$ 829,661	$ 831,390	$ —
Production and intermediate term	—	—	—	818,507	818,507	—
Agribusiness	—	—	—	3,227,160	3,227,160	—
Energy & water/waste disposal	—	—	—	1,340,612	1,340,612	—
Communications	—	—	—	583,838	583,838	—
Rural home	—	—	—	1,807	1,807	—
Mission-related	—	—	—	2,369	2,369	—
Lease receivables	—	—	—	10,777	10,777	—
Direct notes to associations	—	—	—	15,031,851	15,031,851	—
Loans to OFIs	—	—	—	31,653	31,653	—
Total	$ 388	$ 1,341	$ 1,729	$ 21,878,235	$ 21,879,964	$ —

Additional impaired loan information was as follows:

	At September 30, 2021			At December 31, 2020		
	Recorded Investment	**Unpaid Principal Balance**	**Related Allowance**	Recorded Investment	Unpaid Principal Balance	Related Allowance
Impaired loans with a related allowance for credit losses:						
Real estate mortgage	**$ 556**	**$ 556**	**$ 44**	$ —	$ —	$ —
Energy & water/waste disposal	**5,951**	**5,953**	**1,396**	—	—	—
Mission-related	**162**	**162**	**57**	164	164	55
Total	**$ 6,669**	**$ 6,671**	**$ 1,497**	$ 164	$ 164	$ 55
Impaired loans with no related allowance for credit losses:						
Real estate mortgage	**$ —**	**$ —**	**$ —**	$ 1,341	$ 1,341	$ —
Energy & water/waste disposal	**—**	**2,098**	**—**	—	—	—
Mission-related	**2,155**	**2,155**	**—**	2,205	2,205	—
Processing and marketing	**—**	**1,192**	**—**	—	1,192	—
Total	**$ 2,155**	**$ 5,445**	**$ —**	$ 3,546	$ 4,738	$ —
Total impaired loans:						
Real estate mortgage	**$ 556**	**$ 556**	**$ 44**	$ 1,341	$ 1341	$ —
Energy & water/waste disposal	**5,951**	**8,051**	**1,396**	—	—	—
Mission-related	**2,317**	**2,317**	**57**	2,369	2,369	55
Processing and marketing	**—**	**1,192**	**—**	—	1,192	—
Total	**$ 8,824**	**$ 12,116**	**$ 1,497**	$ 3,710	$ 4,902	$ 55

	For the Three Months Ended				For the Nine Months Ended			
	September 30, 2021		September 30, 2020		**September 30, 2021**		September 30, 2020	
	Average Impaired Loans	**Interest Income Recognized**	Average Impaired Loans	Interest Income Recognized	**Average Impaired Loans**	**Interest Income Recognized**	Average Impaired Loans	Interest Income Recognized
Impaired loans with a related allowance for credit losses:								
Real estate mortgage	**$ 591**	**$ —**	$ —	$ —	**$ 199**	**$ —**	$ —	$ —
Agribusiness	**—**	**—**	5,833	—	**—**	**—**	5,894	—
Energy & water/waste disposal	**6,137**	**—**	8,652	—	**4,493**	**—**	8,718	—
Mission-related	**157**	**4**	162	—	**159**	**10**	164	7
Total	**$ 6,885**	**$ 4**	$ 14,647	$ —	**$ 4,851**	**$ 10**	$ 14,776	$ 7
Impaired loans with no related allowance for credit losses:								
Real estate mortgage	**$ —**	**$ —**	$ 1,418	$ 20	**$ 586**	**$ 19**	$ 1,461	$ 36
Agribusiness	**—**	**—**	71	—	**—**	**—**	179	—
Energy & water/waste disposal	**—**	**—**	101	—	**—**	**—**	368	—
Mission-related	**2,102**	**32**	2,184	—	**2,140**	**270**	2,218	68
Total	**$ 2,102**	**$ 32**	$ 3,774	$ 20	**$ 2,726**	**$ 289**	$ 4,226	$ 104
Total impaired loans:								
Real estate mortgage	**$ 591**	**$ —**	$ 1,418	$ 20	**$ 785**	**$ 19**	$ 1,461	$ 36
Agribusiness	**—**	**—**	5,904	—	**—**	**—**	6,073	—
Energy & water/waste disposal	**6,137**	**—**	8,753	—	**4,493**	**—**	9,086	—
Mission-related	**2,259**	**36**	2,346	—	**2,299**	**280**	2,382	75
Total	**$ 8,987**	**$ 36**	$ 18,421	$ 20	**$ 7,577**	**$ 299**	$ 19,002	$ 111

At September 30, 2021, impaired loans of $6.7 million had a related specific allowance of $1.5 million, while the remaining $2.2 million of impaired loans had no related specific allowance as a result of adequate collateralization.

The average recorded investment in impaired loans for the three months ended September 30, 2021, was $9.0 million. The bank recognized interest income of $36 thousand on impaired loans during the three months ended September 30, 2021.

The average recorded investment in impaired loans for the nine months ended September 30, 2021, was $7.6 million. The bank recognized interest income of $299 thousand on impaired loans during the nine months ended September 30, 2021.

A summary of changes in the allowance and reserves for credit losses and period end recorded investment (including accrued interest) in loans follows:

	Real Estate Mortgage	Production and Intermediate Term	Agri-business	Comm-unications	Energy and Water/ Waste Disposal	Lease Receivables	Rural Home	Inter-national	Direct Notes to Associations	Loans to OFIs	Mission-Related	Total
Allowance for Credit Losses:												
Balance at June 30, 2021	$ 379	$ 1,907	$ 5,976	$ 352	$ 3,796	$ 70	$ —	$ 42	$ —	$ —	$ 56	$ 12,578
Charge-offs	—	—	—	—	—	—	—	—	—	—	—	—
Recoveries	40	—	—	—	—	—	—	—	—	—	—	40
Provision for credit losses (loan loss reversal)	69	3	537	(7)	(179)	(2)	—	(2)	—	—	—	419
Other *	2	10	(52)	(9)	(12)	—	—	(1)	—	—	—	(62)
Balance at September 30, 2021	$ 490	$ 1,920	$ 6,461	$ 336	$ 3,605	$ 68	$ —	$ 39	$ —	$ —	$ 56	$ 12,975
Balance at December 31, 2020	$ 314	$ 1,875	$ 6,196	$ 341	$ 748	$ 79	$ —	$ —	$ —	$ —	$ 55	$ 9,608
Charge-offs	—	—	—	—	—	—	—	—	—	—	—	—
Recoveries	40	—	—	—	35	—	—	—	—	—	—	75
Provision for credit losses (loan loss reversal)	127	(30)	(52)	1	2,978	(11)	—	46	—	—	1	3,060
Other *	9	75	317	(6)	(156)	—	—	(7)	—	—	—	232
Balance at September 30, 2021	$ 490	$ 1,920	$ 6,461	$ 336	$ 3,605	$ 68	$ —	$ 39	$ —	$ —	$ 56	$ 12,975
Individually evaluated for impairment	$ 44	$ —	$ —	$ —	$ 1,396	$ —	$ —	$ —	$ —	$ —	$ 57	$ 1,497
Collectively evaluated for impairment	446	1,920	6,461	336	2,209	68	—	39	—	—	(1)	11,478
Loans acquired with deteriorated credit quality	—	—	—	—	—	—	—	—	—	—	—	—
Balance at September 30, 2021	$ 490	$ 1,920	$ 6,461	$ 336	$ 3,605	$ 68	$ —	$ 39	$ —	$ —	$ 56	$ 12,975
Balance at June 30, 2020	$ 261	$ 1,333	$ 5,957	$ 439	$ 3,441	$ 60	$ —	$ —	$ —	$ —	$ 53	$ 11,544
Charge-offs	—	—	—	—	(2,808)	—	—	—	—	—	—	(2,808)
Recoveries	5	—	—	—	—	—	—	—	—	—	—	5
Provision for credit losses (loan loss reversal)	19	425	408	(89)	(453)	23	—	—	—	—	2	335
Other *	(4)	(26)	(186)	(16)	511	(1)	—	—	—	—	(1)	277
Balance at September 30, 2020	$ 281	$ 1,732	$ 6,179	$ 334	$ 691	$ 82	$ —	$ —	$ —	$ —	$ 54	$ 9,353
Balance at December 31, 2019	$ 166	$ 1,085	$ 6,097	$ 345	$ 3,699	$ 40	$ —	$ —	$ —	$ —	$ 55	$ 11,487
Charge-offs	—	—	—	—	(2,808)	—	—	—	—	—	—	(2,808)
Recoveries	11	—	—	—	—	—	—	—	—	—	—	11
Provision for credit losses (loan loss reversal)	107	891	526	14	(660)	43	—	—	—	—	—	921
Other *	(3)	(244)	(444)	(25)	460	(1)	—	—	—	—	(1)	(258)
Balance at September 30, 2020	$ 281	$ 1,732	$ 6,179	$ 334	$ 691	$ 82	$ —	$ —	$ —	$ —	$ 54	$ 9,353
Individually evaluated for impairment	$ —	$ —	$ 1,199	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 54	$ 1,253
Collectively evaluated for impairment	281	1,732	4,980	334	691	82	—	—	—	—	—	8,100
Loans acquired with deteriorated credit quality	—	—	—	—	—	—	—	—	—	—	—	—
Balance at September 30, 2020	$ 281	$ 1,732	$ 6,179	$ 334	$ 691	$ 82	$ —	$ —	$ —	$ —	$ 54	$ 9,353
Recorded Investments in Loans Outstanding:												
Ending balance at September 30, 2021	$ 889,593	$ 838,640	$3,202,856	$ 576,908	$1,344,494	$ 9,706	$ 1,370	$ 90,330	$ 17,337,316	$ 32,450	$ 2,317	$24,325,980
Individually evaluated for impairment	$ 556	$ —	$ —	$ —	$ 5,951	$ —	$ —	$ —	$ 17,337,316	$ —	$ 2,317	$17,346,140
Collectively evaluated for impairment	$ 889,037	$ 838,640	$3,202,856	$ 576,908	$1,338,543	$ 9,706	$ 1,370	$ 90,330	$ —	$ 32,450	$ —	$ 6,979,840
Loans acquired with deteriorated credit quality	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Ending balance at September 30, 2020	$ 771,854	$ 739,076	$3,205,088	$ 558,381	$1,244,034	$ 11,126	$ 1,830	$ —	$ 14,415,725	$ 28,689	$ 2,407	$20,978,210
Individually evaluated for impairment	$ 1,570	$ —	$ 5,783	$ —	$ 7,807	$ —	$ —	$ —	$ 14,415,725	$ —	$ 2,407	$14,433,292
Collectively evaluated for impairment	$ 770,284	$ 739,076	$3,199,305	$ 558,381	$1,236,227	$ 11,126	$ 1,830	$ —	$ —	$ 28,689	$ —	$ 6,544,918
Loans acquired with deteriorated credit quality	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —

A restructuring of a loan constitutes a troubled debt restructuring (TDR) if the creditor for economic or legal reasons related to the debtor's financial difficulties grants a concession to the debtor that it would not otherwise consider. TDRs are undertaken in order to improve the likelihood of recovery on the loan and may include, but are not limited to, forgiveness of principal or interest, interest rate reductions that are lower than the current market rate for new debt with similar risk, or significant term or payment extensions. These loans are included as impaired loans in the impaired loans table.

At September 30, 2021, the total recorded investment in TDRs was $2.9 million, including $556 thousand classified as nonaccrual and $2.3 million classified as accrual, with specific allowance for loan losses of $101 thousand. There were no additional commitments to lend to borrowers at September 30, 2021, or December 31, 2020.

The following table provides information on outstanding loans restructured in TDRs at period end:

	Total Loans Modified as TDRs		TDRs in Nonaccrual Status	
	September 30, 2021	December 31, 2020	**September 30, 2021**	December 31, 2020
Mission-related	**$ 2,317**	$ 2,369	**$ —**	$ —
Real estate mortgage	**556**	665	**556**	665
Total	**$ 2,873**	$ 3,034	**$ 556**	$ 665

There were no new loans designated as TDRs during the nine months ended September 30, 2021, or September 30, 2020. During both periods there were no payment defaults on loans that were restructured during the previous 12 months. A payment default is defined as a payment that is 30 days past due after the date the loan was restructured.

NOTE 4 — LEASES

The bank evaluates arrangements at inception to determine if it meets the criteria for a lease. Leases with an initial term of 12 months or less are not recorded on the balance sheet with lease expense recognized on a straight-line basis over the lease term. Operating leases are included in other assets for right-of-use (ROU) assets and other liabilities for lease liabilities on the balance sheet.

ROU assets represent the bank's right to use an underlying asset for the lease term and lease liabilities represent the bank's obligation to make lease payments arising from the lease. Operating ROU assets and liabilities are recognized based on the present value of the lease payments over the lease term. The bank's lease terms may include options to extend or terminate the lease when it is reasonably certain that the bank will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

The bank maintains a lease for its headquarters facility in Austin, Texas. The original lease was effective from September 2003 through August 2013. The bank has since entered into two lease amendments which extended the lease through December 2034. This lease is for approximately 111,500 square feet of office space ranging from $18 to $38 per square foot during its term. Lease expenses for the facility include certain operating expenses passed through from the landlord and were $1,169 and $1,307 for the three months ended September 30, 2021 and 2020, respectively. Lease expenses for the facility were $3,769 and $3,829 for the nine months ended September 30, 2021 and 2020, respectively.

The bank entered into a lease for postage machines in June 2017, a lease for copiers in January 2020, and a lease for ice machines in November 2020. The postage machines lease had an original term ending August 2020 but was renewed and is effective July 2020 through September 2023. The copiers lease has a term of January 2020 through March 2023. The ice machines lease has a term of November 2020 through

October 2022. Lease expenses for the copiers, postage and ice machines were $40 and $180 for the three and nine months ended September 30, 2021, respectively. Lease expenses for the copiers and postage machines were $52 and $178 for the three and nine months ended September 30, 2020, respectively.

The components of lease expense were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
Classification on Statements of Comprehensive Income	**2021**	2020	**2021**	2020
Occupancy and equipment	**$ 1,209**	$ 1,359	**$ 3,949**	$ 4,007

Other information related to leases was as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	**2021**	2020
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash flows for operating leases	**$ 696**	$ 677	**$ 2,076**	$ 2,018
ROU assets obtained in exchange for new lease obligations:				
Operating leases	**$ —**	$ 52	**$ —**	$ 484

At September 30, 2021, the weighted-average remaining lease term for the building, copier, postage and ice machine leases was 13.27 years and the weighted-average discount rate was 2.41%. At December 31, 2020, the weighted-average remaining lease term for the building, copiers, postage and ice machine leases was 13.90 years and the weighted-average discount rate was 2.41%. The discount rates were determined using the bank's incremental borrowing rate for bonds for terms relative to the lease terms. The following are the undiscounted cash flows for the operating leases at September 30, 2021:

	Maturities of Lease Liabilities
Remainder of 2021	$ 709
2022	2,863
2023	2,837
2024	3,051
2025	3,481
Thereafter	34,636
Total undiscounted cash flows	47,577
Less interest expense	4,802
Lease liability	**$ 42,775**

The lease expense for leases with terms of 12 months or less was $10 and $9 for the three months ended September 30, 2021 and 2020, respectively. The lease expense for leases with terms of 12 months or less was $29 and $27 for the nine months ended September 30, 2021 and 2020, respectively.

NOTE 5 — COMMITMENTS AND CONTINGENCIES

The bank is primarily liable for its portion of Systemwide debt obligations. Additionally, the bank is jointly and severally liable for the consolidated Systemwide bonds and notes of the other System banks. Total consolidated bank and Systemwide obligations of the System at September 30, 2021, were approximately $329.01 billion.

In the normal course of business, the bank has various outstanding commitments and contingent liabilities, including the possibility of actions against the bank in which claims for monetary damages may be asserted. Management and legal counsel are not aware of any other pending lawsuits or actions. Upon the basis of current information, management and legal counsel are of the opinion that the ultimate liability, if any, resulting from lawsuits or other pending actions will not be material in relation to the financial position, results of operations or cash flows of the bank.

NOTE 6 — FAIR VALUE MEASUREMENTS

Authoritative accounting guidance defines fair value as the exchange price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants in the principal or most advantageous market for the asset or liability. See Note 2 — Summary of Significant Accounting Policies of the 2020 Annual Report for a more complete description.

Assets and liabilities measured at fair value on a recurring basis at September 30, 2021, for each of the fair value hierarchy levels are summarized below:

	Fair Value Measurement			
	Total	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Assets:				
Federal funds sold and other overnight funds	**$ 184,640**	$ —	$ 184,640	$ —
Available-for-sale investments				
Agency-guaranteed debt	**94,115**	—	94,115	$ —
Corporate debt	**221,261**	—	221,261	—
Mortgage-backed securities	**5,285,573**	—	5,141,422	144,151
U.S. Treasury securities	**600,338**	—	600,338	—
Asset-backed securities	**172,731**	—	172,731	—
Other available-for-sale investments	**15,907**	—	—	15,907
Derivative assets	**309**	—	309	—
Assets held in nonqualified benefit trusts	**1,292**	1,292	—	—
Collateral assets	**6,640**	6,640	—	—
Total assets	**$ 6,582,806**	$ 7,932	$ 6,414,816	$ 160,058
Liabilities:				
Derivative liabilities	**$ 27,567**	$ —	$ 27,567	$ —
Letters of credit	**2,272**	—	—	2,272
Total liabilities	**$ 29,839**	$ —	$ 27,567	$ 2,272

The table below represents a reconciliation of Level 3 assets and liabilities measured at fair value on a recurring basis for the period from July 1, 2021, to September 30, 2021:

	Assets		Liabilities	
	Mortgage-Backed Securities	Agricultural Mortgage-Backed Securities	Letters of Credit	Net
Balance at July 1, 2021	$ 251,471	$ 19,421	$ 2,500	$ 268,392
Net losses included in other comprehensive income	(836)	(30)	—	(866)
Purchases, issuances, (sales) and (settlements)	144,987	(3,484)	(228)	141,731
Transfers out of Level 3	(251,471)	—	—	(251,471)
Balance at September 30, 2021	$ 144,151	$ 15,907	$ 2,272	$ 157,786
The amount of gains/losses for the period included in earnings attributable to the change in unrealized gains or losses relating to assets or liabilities still held at September 30, 2021	—	—	—	—
The amount of gains/losses for the period included in other comprehensive income attributable to the change in unrealized gains or losses relating to assets or liabilities still held at September 30, 2021	$ (836)	$ (30)	$ —	$ (866)

The table below represents a reconciliation of Level 3 assets and liabilities measured at fair value on a recurring basis for the period from January 1, 2021, to September 30, 2021:

	Assets			Liabilities	
	Mortgage-Backed Securities	Asset-Backed Securities	Agricultural Mortgage-Backed Securities	Letters of Credit	Net
Balance at January 1, 2021	$ 75,914	$ —	$ 23,464	$ 2,513	$ 96,865
Net losses included in other comprehensive income	(1,687)	(15)	(82)	—	(1,784)
Purchases, issuances, (sales) and (settlements)	437,684	11,975	(7,475)	(241)	442,425
Transfers out of Level 3	(367,760)	(11,960)	—	—	(379,720)
Balance at September 30, 2021	$ 144,151	$ —	$ 15,907	$ 2,272	$ 157,786
The amount of gains/losses for the period included in earnings attributable to the change in unrealized gains or losses relating to assets or liabilities still held at September 30, 2021	—	—	—	—	—
The amount of gains/losses for the period included in other comprehensive income attributable to the change in unrealized gains or losses relating to assets or liabilities still held at September 30, 2021	$ (1,687)	$ (15)	$ (82)	$ —	$ (1,784)

There were transfers of assets out of Level 3 to other levels during the three and nine months ended September 30, 2021. Transfers of asset-backed securities (ABS) and mortgage-backed securities (MBS) from Level 3 to Level 2 were the result of market pricing becoming subsequently available. ABS and MBS were included in Level 3 since their valuation was based on Level 3 criteria (broker quotes). Agricultural mortgage-backed securities (AMBS) were included in Level 3 due to limited activity or less transparency around inputs to their valuation. The liability for letters of credit was included in Level 3 because the valuation, based on fees charged for similar agreements, may not closely correlate to a fair value for instruments not regularly traded in the secondary market.

Assets and liabilities measured at fair value on a nonrecurring basis at September 30, 2021, for each of the fair value hierarchy levels are summarized below:

	Fair Value Measurements			
	Total	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Assets:				
Loans	**$ 5,167**	**$ —**	**$ —**	**$ 5,167**
Total assets	**$ 5,167**	**$ —**	**$ —**	**$ 5,167**

Assets and liabilities measured at fair value on a recurring basis at December 31, 2020, for each of the fair value hierarchy levels are summarized below:

	Fair Value Measurements			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Federal funds sold and other overnight funds	$ 208,229	$ —	$ 208,229	$ —
Available-for-sale investments				
Commercial paper	49,991	—	49,991	—
Agency-guaranteed debt	114,379	—	114,379	—
Corporate debt	284,832	—	284,832	—
Mortgage-backed securities	4,452,654	—	4,376,740	75,914
U.S. Treasury securities	426,453	—	426,453	—
Asset-backed securities	196,394	—	196,394	—
Other available-for-sale investments	23,464	—	—	23,464
Derivative assets	398	—	398	—
Assets held in nonqualified benefit trusts	1,186	1,186	—	—
Collateral assets	50,380	50,380	—	—
Total assets	$ 5,808,360	$ 51,566	$ 5,657,416	$ 99,378
Liabilities:				
Derivative liabilities	$ 73,347	$ —	$ 73,347	$ —
Letters of credit	2,513	—	—	2,513
Total liabilities	$ 75,860	$ —	$ 73,347	$ 2,513

The following table represents a reconciliation of Level 3 assets and liabilities measured at fair value on a recurring basis for the period from July 1, 2020, to September 30, 2020:

	Assets		Liabilities	
	Mortgage- Backed Securities	Agricultural Mortgage- Backed Securities	Letters of Credit	Net
Balance at July 1, 2020	$ 125,210	$ 25,110	$ 1,777	$ 148,543
Net (losses) gains included in other comprehensive income	(52)	22	—	(30)
Purchases, issuances and (settlements)	58,246	(558)	(34)	57,722
Transfers out of level 3	(125,209)	—	—	(125,209)
Balance at September 30, 2020	$ 58,195	$ 24,574	$ 1,743	$ 81,026
The amount of gains/losses for the period included in earnings attributable to the change in unrealized gains or losses relating to assets or liabilities still held at September 30, 2020	—	—	—	—
The amount of gains/losses for the period included in other comprehensive income attributable to the change in unrealized gains or losses relating to assets or liabilities still held at September 30, 2020	$ (52)	$ 22	$ —	$ (30)

The following table represents a reconciliation of Level 3 assets and liabilities measured at fair value on a recurring basis for the period from January 1, 2020, to September 30, 2020:

	Assets		Liabilities	
	Mortgage- Backed Securities	Agricultural Mortgage- Backed Securities	Letters of Credit	Net
Balance at January 1, 2020	$ —	$ 29,051	$ 830	$ 28,221
Net gains included in other comprehensive income	141	574	—	715
Purchases, issuances and (settlements)	224,239	(5,051)	913	218,275
Transfers out of level 3	(166,185)	—	—	(166,185)
Balance at September 30, 2020	$ 58,195	$ 24,574	$ 1,743	$ 81,026
The amount of gains/losses for the period included in earnings attributable to the change in unrealized gains or losses relating to assets or liabilities still held at September 30, 2020	—	—	—	—
The amount of gains/losses for the period included in other comprehensive income attributable to the change in unrealized gains or losses relating to assets or liabilities still held at September 30, 2020	$ 141	$ 574	$ —	$ 715

There were transfers of assets out of Level 3 to other levels during the three and nine months ended September 30, 2020. Transfers of MBS from Level 3 to Level 2 were the result of market pricing becoming subsequently available. MBS were included in Level 3 due to the fact that their valuation was based on Level 3 criteria (broker quotes). AMBS were included in Level 3 due to limited activity or less transparency around inputs to their valuation. The liability for letters of credit were included in Level 3 because their valuation, based on fees currently charged for similar agreements, did not closely correlate to a fair value for instruments not regularly traded in the secondary market.

Assets and liabilities measured at fair value on a nonrecurring basis at December 31, 2020, for each of the fair value hierarchy levels are summarized below:

	Fair Value Measurement			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Loans	$ 107	$ —	$ —	$ 107
Total assets	$ 107	$ —	$ —	$ 107

Financial instruments measured at carrying amounts and not measured at fair value on the balance sheet for each of the fair value hierarchy values are summarized as follows:

September 30, 2021:		**Fair Value Measurement**			
	Total Carrying Amount	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Total Fair Value**
Financial Assets:					
Cash	**$ 27,235**	**$ 27,235**	**$ —**	**$ —**	**$ 27,235**
Net loans	**24,254,155**	**—**	**—**	**24,376,072**	**24,376,072**
Total assets	**$ 24,281,390**	**$ 27,235**	**$ —**	**$ 24,376,072**	**$ 24,403,307**
Financial Liabilities:					
Systemwide debt securities	**$ 28,998,011**	**$ —**	**$ —**	**$ 29,153,313**	**$ 29,153,313**
Total liabilities	**$ 28,998,011**	**$ —**	**$ —**	**$ 29,153,313**	**$ 29,153,313**

December 31, 2020:		Fair Value Measurement			
	Total Carrying Amount	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
Financial Assets:					
Cash	$ 128,302	$ 128,302	$ —	$ —	$ 128,302
Net loans	21,814,593	—	—	22,231,536	22,231,536
Total assets	$ 21,942,895	$ 128,302	$ —	$ 22,231,536	$ 22,359,838
Financial Liabilities:					
Systemwide debt securities	$ 25,873,429	$ —	$ —	$ 26,245,712	$ 26,245,712
Total liabilities	$ 25,873,429	$ —	$ —	$ 26,245,712	$ 26,245,712

Valuation Techniques

As more fully discussed in Note 2 — Summary of Significant Accounting Policies of the 2020 Annual Report, authoritative accounting guidance establishes a fair value hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Fair values of financial instruments represent the estimated amount to be received to sell an asset or paid to transfer or extinguish a liability among willing participants at the reporting date. Due to the uncertainty of expected cash flows resulting from financial instruments, the use of different assumptions and valuation methodologies could significantly affect the estimated fair value amounts. Accordingly, certain of the estimated fair values may not be indicative of the amounts for which the financial instruments could be exchanged in a current or future market transaction.

Uncertainty of Fair Value Measurements

For recurring fair value measurements categorized within Level 3 of the fair value hierarchy, the significant unobservable inputs used in the fair value measurement of the mortgage-backed securities are vendor pricing, prepayment rates, probability of default and loss severity in the event of default which are inclusive of some uncertainty at the reporting date.

Quoted market prices may not be available for the instruments presented below. Accordingly, fair values are based on internal models that consider judgments regarding anticipated cash flows, future expected loss experience, current economic conditions, risk characteristics of various financial instruments and other factors. Significant increases (decreases) in any of those inputs in isolation would have resulted in a significantly lower (higher) fair value measurement. Generally, a change in the assumption used for the probability of default would have been accompanied by a directionally similar change in the assumption used for the loss severity and a directionally opposite change in the assumption used for prepayment rates. These estimates involve uncertainties and matters of judgment, and therefore cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

Information About Recurring and Nonrecurring Level 3 Fair Value Measurements

	Fair Value at		Valuation Technique(s)	Unobservable Input	Range of Inputs / Weighted Average	
	September 30, 2021	December 31, 2020			**September 30, 2021**	December 31, 2020
Other investments	**$ 15,907**	$ 23,464	Discounted cash flow	Prepayment rates	**1.4% - 44.5% / 10.76%**	1.4% - 44.5% / 8.86%
Mortgage-backed securities	**144,151**	75,914	Vendor priced	—	**—**	—

In regard to impaired loans and other property owned (OPO), it is not practicable to provide specific information on inputs as each collateral property is unique. System institutions utilize appraisals to value these loans and OPO and consider unobservable inputs such as income and expense, comparable sales, replacement cost and comparability adjustments.

Information about Recurring and Nonrecurring Level 2 Fair Value Measurements

	Valuation Technique(s)	Input
Federal funds sold	Carrying value	Par/principal
Available-for-sale investment securities	Quoted prices Discounted cash flow	Price for similar security Constant prepayment rate Appropriate interest rate yield curve
Interest rate caps	Discounted cash flow	Appropriate interest rate yield curve Annualized volatility
Interest rate swaps	Discounted cash flow	Benchmark yield curve Counterparty credit risk Volatility

NOTE 7 — ASSET/LIABILITY OFFSETTING

Derivative transactions with swap dealers include bilateral collateral and netting agreements that require the net settlement of covered contracts. Notwithstanding collateral and netting provisions, our derivative assets and liabilities are not offset on the accompanying balance sheets. The amount of collateral received or pledged is calculated on a net basis by counterparty.

The following table summarizes overnight investments, derivative assets and liabilities and amounts of collateral exchanged pursuant to our agreements.

		Amounts Not Offset on the Balance Sheet		
September 30, 2021	**Gross Amounts of Assets/Liabilities Presented on the Balance Sheet**	**Cash Collateral Pledged**	**Investment Securities Received/Pledged as Collateral**	**Net Amount**
Assets:				
Interest rate swaps and other derivatives	**$ 309**	**$ —**	**$ —**	**$ 309**
Federal funds sold and overnight investments	**$ 184,640**	**$ —**	**$ —**	**$ 184,640**
Liabilities:				
Interest rate swaps and other derivatives	**$ 27,567**	**$ (17,182)**	**$ —**	**$ 10,385**
December 31, 2020				
Assets:				
Interest rate swaps and other derivatives	$ 398	$ —	$ —	$ 398
Federal funds sold and overnight investments	$ 208,229	$ —	$ —	$ 208,229
Liabilities:				
Interest rate swaps and other derivatives	$ 73,347	$ (57,684)	$ —	$ 15,663

NOTE 8 — DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

The bank maintains an overall interest rate risk management strategy that incorporates the use of derivative instruments to minimize significant unplanned fluctuations in earnings that are caused by interest rate volatility. The bank's goal is to manage interest rate sensitivity by modifying the repricing or maturity characteristics of certain balance sheet liabilities so that the net interest margin is not adversely affected by movements in interest rates. The bank considers the strategic use of derivatives to be a prudent method of managing interest rate sensitivity, as it prevents earnings from being exposed to undue risk posed by changes in interest rates.

The bank may enter into derivative transactions to lower funding costs, diversify sources of funding, alter interest rate exposures arising from mismatches between assets and liabilities, or better manage liquidity. Under interest rate swap arrangements, the bank agrees with other parties to exchange, at specified intervals, payment streams calculated on a specified notional amount, with at least one stream based on a specified floating-rate index. The bank may purchase interest rate options, such as caps, in order to reduce the impact of rising interest rates on its floating-rate debt.

At September 30, 2021, the bank held interest rate caps with a notional amount of $145.0 million and a net fair value asset of $309 thousand, and pay-fixed interest rate swaps with a notional amount of $825.0 million and a net fair value liability of $27.6 million, net of posted variation margin. The primary types of derivative instruments used and the activity (notional amount of derivatives) during the nine months ended September 30, 2021, are summarized in the following table:

	Receive-Fixed Swaps	Pay-Fixed Swaps	Interest Rate Caps	Total
Balance at January 1, 2021	$ 50,000	$ 825,000	$ 145,000	$ 1,020,000
Additions	—	—	—	—
Maturities/Amortizations	(50,000)	—	—	(50,000)
Balance at September 30, 2021	**$ —**	**$ 825,000**	**$ 145,000**	**$ 970,000**

To minimize the risk of credit losses, the bank maintains collateral agreements to limit exposure to agreed-upon thresholds, deals with counterparties that have an investment grade or better credit rating from a major rating agency, and monitors the credit standing and levels of exposure to individual counterparties. The bank typically enters into master agreements that contain netting provisions. These provisions allow the bank to require the net settlement of covered contracts with the same counterparty in the event of default by the counterparty on one or more contracts. At September 30, 2021, and December 31, 2020, bilateral and cleared counterparties' credit exposure to the bank was $12.1 million and $17.0 million, respectively. At September 30, 2021, the bank in total posted $63.4 million of cash as collateral, and no counterparty had been required to post collateral. At December 31, 2020, the bank had posted $91.3 million of cash as collateral, and no counterparty had been required to post collateral. The decrease in collateral posted from December 31, 2020, to September 30, 2021, was due to the impact of rising interest rates.

Derivative – Counterparty Exposure

The following table represents the credit ratings of counterparties to whom the bank had credit exposure at September 30, 2021:

	Remaining Years to Maturity					
	Less Than One Year to Five Years	More Than Five Years	Total Gains (Losses) *	Exposure	Collateral Posted	Exposure Net of Collateral
Moody's Credit Rating						
A1	$ 11	$ —	$ 11	$ 11	$ —	$ 11
Aa2	(814)	(29,388)	(30,202)	(30,202)	(6,640)	(23,562)
Aa3	(2,812)	(42,528)	(45,340)	(45,340)	(56,771)	11,431
Total	**$ (3,615)**	**$ (71,916)**	**$ (75,531)**	**$ (75,531)**	**$ (63,411)**	**$ (12,120)**

* Represents gain or loss positions on derivative instruments with individual counterparties. Net gains or losses represent the exposure to credit losses estimated by calculating the cost, on a present value basis, to replace all outstanding derivative contracts within a maturity category. Within each maturity category, contracts in a loss position are netted against contracts in a gain position with the same counterparty.

Fair Value Hedges

For derivative instruments that are designated and qualify as a fair value hedge, the gain or loss on the derivative as well as the offsetting loss or gain on the hedged item (principally, debt securities) attributable to the hedge risk are recognized in current earnings. The bank includes the gain or loss on the hedged items in the same line item (interest expense) as the offsetting loss or gain on the related interest rate swaps. At September 30, 2021, the bank had no fair value swaps. At December 31, 2020, the bank had a carrying amount of $50.2 million for the hedged items, which included $162 thousand for the cumulative amount of fair value hedging adjustments.

Cash Flow Hedges

The bank clears certain cash flow hedges through a futures commission merchant (FCM), with a clearinghouse or central counterparty (CCP). At September 30, 2021, the notional amount of cleared cash flow hedges was $500.0 million, with outstanding exposure of $45.3 million and collateral posted of $10.5 million and $46.2 million in initial and variation margins, respectively. At December 31, 2020, the notional amount of cleared cash flow hedges was $250.0 million, with outstanding exposure of $31.5 million and collateral posted of $7.3 million and $33.6 million in initial and variation margins, respectively. The bank's derivative instruments at September 30, 2021, and December 31, 2020, which are designated and qualify as a cash flow hedge, all met the standards for accounting treatment that presume full effectiveness. Thus, the effective portion of the gain or loss on the derivative was reported as a component of other comprehensive income. In the next 12 months, we expect to reclassify to earnings losses of $233 thousand recorded in accumulated other comprehensive loss (AOCL) as of September 30, 2021.

The following table represents the fair value of cash flow derivative instruments, inclusive of posted variation margin for cleared activity as of September 30, 2021, and December 31, 2020.

		Fair Value at			**Fair Value at**	
	Balance Sheet Location	**September 30, 2021**	December 31, 2020	**Balance Sheet Location**	**September 30, 2021**	December 31, 2020
Interest rate caps	Other assets	**$ 309**	$ 236	Other liabilities	**$ —**	$ —
Pay-fixed swaps	Other assets	**—**	—	Other liabilities	**(27,567)**	(73,347)

	Gain (Loss) Recognized in AOCL on Derivatives at September 30,			**Amount of Loss Reclassified from AOCL at September 30,**	
	2021	2020		**2021**	2020
Interest rate caps	**$ 73**	$ (139)	Interest expense	**$ (178)**	$ (267)
Pay-fixed swaps	**33,138**	66,975	Interest expense	**—**	(1,640)

NOTE 9 — CAPITAL

The FCA sets minimum regulatory capital requirements, including capital conservation buffers, for banks and associations. These requirements are split into minimum requirements for risk-adjusted ratios and non-risk-adjusted ratios. The risk-adjusted ratios include common equity tier 1, tier 1 capital, total capital, and permanent risk-based capital ratios. The non-risk-adjusted ratios include tier 1 leverage and unretained earnings equivalents (UREE) leverage ratios. The regulatory minimum capital ratios include fully phased-in capital conservation buffers that became effective January 1, 2020. There was no phase-in period for the tier 1 leverage. As of September 30, 2021, the bank exceeded all regulatory capital requirements, including the capital conservation buffers.

The following table reflects the bank's capital ratios:

Risk-adjusted	**Regulatory Requirements Including Capital Conservation Buffers**	**As of September 30, 2021**	As of December 31, 2020
Common equity tier 1 ratio	7.00 %	**9.52 %**	9.92 %
Tier 1 capital ratio	8.50	**15.27**	16.07
Total capital ratio	10.50	**15.36**	16.15
Permanent capital ratio	7.00	**15.28**	16.08
Non-risk-adjusted			
Tier 1 leverage ratio	5.00 %	**6.49 %**	7.11 %
UREE leverage ratio	1.50	**2.69**	2.99

Risk-adjusted assets have been defined by FCA regulations as the statement of condition assets and off-balance sheet commitments adjusted by various percentages, depending on the level of risk inherent in the various types of assets.

The ratios are based on a three-month average daily balance in accordance with FCA regulations and are calculated as follows:

- Common equity tier 1 ratio is statutory minimum purchased borrower stock, other required borrower stock held for a minimum of 7 years, allocated equities held for a minimum of 7 years or not subject to revolvement, unallocated retained earnings, paid-in capital, less certain regulatory required deductions including the amount of allocated investments in other System institutions, and the amount of purchased investments in other System institutions under the corresponding deduction approach, divided by average risk-adjusted assets.
- Tier 1 capital ratio is common equity tier 1 plus noncumulative perpetual preferred stock, divided by average risk-adjusted assets.
- Total capital is tier 1 capital plus other required borrower stock held for a minimum of 5 years, allocated equities held for a minimum of 5 years, subordinated debt and limited-life preferred stock greater than 5 years to maturity at issuance subject to certain limitations, allowance and reserve for credit losses under certain limitations less certain investments in other System institutions under the corresponding deduction approach, divided by average risk-adjusted assets.
- Permanent capital ratio (PCR) is all at-risk borrower stock, any allocated excess stock, unallocated retained earnings, paid-in capital, subordinated debt and preferred stock subject to certain limitations, less certain allocated and purchased investments in other System institutions, divided by PCR risk-adjusted assets.
- Tier 1 leverage ratio is tier 1 capital, including regulatory deductions, divided by average assets less regulatory deductions subject to tier 1 capital.
- UREE leverage ratio is unallocated retained earnings, paid-in capital, allocated surplus not subject to revolvement less certain regulatory required deductions including the amount of allocated investments in other System institutions divided by average assets less regulatory deductions subject to tier 1 capital.

If the capital ratios fall below the minimum regulatory requirements, capital distributions (equity redemptions, dividends and patronage) and discretionary bonus payments to senior officers are restricted or prohibited without prior FCA approval.

The components of the bank's risk-adjusted capital, based on 90-day average balances, were as follows at September 30, 2021:

(dollars in thousands)	**Common Equity Tier 1 Ratio**	**Tier 1 Capital Ratio**	**Total Capital Ratio**	**Permanent Capital Ratio**
Numerator:				
Unallocated retained earnings	$ 978,755	$ 978,755	$ 978,755	$ 978,755
Common Cooperative Equities:				
Purchased other required stock ≥7 years	321,431	321,431	321,431	321,431
Allocated stock ≥7 years	36,042	36,042	36,042	36,042
Allocated equities:				
Allocated equities held ≥7 years	59,859	59,859	59,859	59,859
Noncumulative perpetual preferred stock	—	750,000	750,000	750,000
Allowance for loan losses and reserve for credit losses subject to certain limitations	—	—	11,477	—
Regulatory Adjustments and Deductions:				
Amount of allocated investments in other System institutions	(155,055)	(155,055)	(155,055)	(155,055)
Other regulatory required deductions	(249)	(249)	(249)	(249)
Total	**$ 1,240,783**	**$ 1,990,783**	**$ 2,002,260**	**$ 1,990,783**
Denominator:				
Risk-adjusted assets excluding allowance	$ 13,035,340	$ 13,035,340	$ 13,035,340	$ 13,035,340
Regulatory Adjustments and Deductions:				
Allowance for loan losses	—	—	—	(9,836)
Total	**$ 13,035,340**	**$ 13,035,340**	**$ 13,035,340**	**$ 13,025,504**

The components of the bank's risk-adjusted capital, based on 90-day average balances, were as follows at December 31, 2020:

(dollars in thousands)	Common Equity Tier Ratio	Tier 1 Capital Ratio	Total Capital Ratio	Permanent Capital Ratio
Numerator:				
Unallocated retained earnings	$ 976,278	$ 976,278	$ 976,278	$ 976,278
Common Cooperative Equities:				
Purchased other required stock ≥7 years	298,233	298,233	298,233	298,233
Allocated stock ≥7 years	36,042	36,042	36,042	36,042
Allocated equities:				
Allocated equities held ≥7 years	52,532	52,532	52,532	52,532
Noncumulative perpetual preferred stock	—	750,000	750,000	750,000
Allowance for loan losses and reserve for credit losses subject to certain limitations	—	—	9,712	—
Regulatory Adjustments and Deductions:				
Amount of allocated investments in other System institutions	(152,298)	(152,298)	(152,298)	(152,298)
Other regulatory required deductions	(272)	(272)	(272)	(272)
Total	$ 1,210,515	$ 1,960,515	$ 1,970,227	$ 1,960,515
Denominator:				
Risk-adjusted assets excluding allowance	$ 12,201,112	$ 12,201,112	$ 12,201,112	$ 12,201,112
Regulatory Adjustments and Deductions:				
Allowance for loan losses	—	—	—	(7,647)
Total	$ 12,201,112	$ 12,201,112	$ 12,201,112	$ 12,193,465

The components of the bank's non-risk-adjusted capital, based on 90-day average balances, were as follows at September 30, 2021:

(dollars in thousands)	**Tier 1 Leverage Ratio**	**UREE Leverage Ratio**
Numerator:		
Unallocated retained earnings	$ 978,755	$ 978,755
Common Cooperative Equities:		
Purchased other required stock ≥7 years	321,431	—
Allocated stock ≥7 years	36,042	—
Allocated equities:		
Allocated equities held ≥7 years	59,859	—
Noncumulative perpetual preferred stock	750,000	—
Regulatory Adjustments and Deductions:		
Amount of allocated investments in other System institutions	(155,055)	(155,055)
Other regulatory required deductions	(249)	—
Total	**$ 1,990,783**	**$ 823,700**
Denominator:		
Total assets	30,813,285	30,813,285
Regulatory Adjustments and Deductions:		
Regulatory deductions included in tier 1 capital	(162,092)	(162,092)
Total	**$ 30,651,193**	**$ 30,651,193**

The components of the bank's non-risk-adjusted capital, based on 90-day average balances, were as follows at December 31, 2020:

(dollars in thousands)	Tier 1 Leverage Ratio	UREE Leverage Ratio
Numerator:		
Unallocated retained earnings	$ 976,278	$ 976,278
Common Cooperative Equities:		
Purchased other required stock ≥7 years	298,233	—
Allocated stock ≥7 years	36,042	—
Allocated equities:		
Allocated equities held ≥7 years	52,532	—
Noncumulative perpetual preferred stock	750,000	—
Regulatory Adjustments and Deductions:		
Amount of allocated investments in other System institutions	(152,298)	(152,298)
Other regulatory required deductions	(272)	—
Total	$ 1,960,515	$ 823,980
Denominator:		
Total assets	$ 27,734,761	$ 27,734,761
Regulatory Adjustments and Deductions:		
Regulatory deductions included in tier 1 capital	(161,156)	(161,156)
Total	$ 27,573,605	$ 27,573,605

NOTE 10 — EMPLOYEE BENEFIT PLANS

In addition to pension benefits, the bank provides certain health care benefits to qualifying retired employees (other postretirement benefits). These benefits are not characterized as multiemployer and, consequently, the liability for these benefits is included in other liabilities. Bank employees hired after January 1, 2004, may be eligible for retiree medical benefits for themselves and their spouses at their expense and will be responsible for 100% of the related premiums. The following table summarizes the components of net periodic benefit costs for the bank's other postretirement benefit costs for the nine months ended September 30:

	Other Postretirement Benefits	
	2021	2020
Service cost	**$ 147**	$ 170
Interest cost	**259**	312
Amortization of prior service credits	**(58)**	(59)
	$ 348	$ 423

The components of net periodic benefit cost other than the service cost component are included in other components of net periodic postretirement benefit cost on the income statements.

The structure of the district's defined benefit pension plan is characterized as multiemployer, since neither the assets, liabilities nor cost of any plan is segregated or separately accounted for by participating employers (bank and associations).

NOTE 11 — ACCUMULATED OTHER COMPREHENSIVE LOSS

Accumulated other comprehensive loss (AOCL) includes the accumulated balance of certain gains, losses or costs for which values are included in assets or liabilities on the balance sheets, but which have not yet been recognized in earnings. For the bank, these elements include unrealized gains or losses on the bank's available-for-sale (AFS) investment portfolio, amortization of postretirement benefit elements and changes in the value of cash flow derivative instruments.

The following is a summary of the components of AOCL and the changes that occurred during the nine months ended September 30, 2021:

	Total	**Unrealized Gains (Losses) on Investments**	**Postretirement Benefit Plans**	**Cash Flow Derivative Instruments**
Balance at January 1, 2021	$ (28,827)	$ 80,007	$ (891)	$ (107,943)
Change in unrealized gains on AFS securities:				
Net decrease in unrealized gains on AFS securities	(51,771)	(51,771)		
Net change in unrealized gains on AFS securities	(51,771)	(51,771)		
Change in postretirement benefit plans:				
Amounts amortized into net periodic expense:				
Amortization of prior service credits	(58)		(58)	
Net change in postretirement benefit plans	(58)		(58)	
Change in cash flow derivative instruments:				
Net decrease in unrealized losses on cash flow derivative instruments	33,211			33,211
Reclassification of losses recognized in interest expense	178			178
Net change in cash flow derivative instruments	33,389			33,389
Total other comprehensive (loss) income	**(18,440)**	**(51,771)**	**(58)**	**33,389**
Balance at September 30, 2021	**$ (47,267)**	**$ 28,236**	**$ (949)**	**$ (74,554)**

The following is a summary of the components of AOCL and the changes that occurred during the nine months ended September 30, 2020:

	Total	Unrealized Gains on Investments	Postretirement Benefit Plans	Cash Flow Derivative Instruments
Balance at January 1, 2020	$ (51,631)	$ 3,212	$ (801)	$ (54,042)
Change in unrealized gains on AFS securities:				
Net increase in unrealized gains on AFS securities	86,647	86,647		
Net change in unrealized gains on AFS securities	86,647	86,647		
Change in postretirement benefit plans:				
Amounts amortized into net periodic expense:				
Amortization of prior service credits	(59)		(59)	
Net change in postretirement benefit plans	(59)		(59)	
Change in cash flow derivative instruments:				
Net increase in unrealized losses on cash flow derivative instruments	(73,910)			(73,910)
Reclassification of losses recognized in interest expense	8,982			8,982
Net change in cash flow derivative instruments	(64,928)			(64,928)
Total other comprehensive income (loss)	21,660	86,647	(59)	(64,928)
Balance at September 30, 2020	$ (29,971)	$ 89,859	$ (860)	$ (118,970)

The following table summarizes reclassifications from AOCL to the statements of comprehensive income for the nine months ended September 30, 2021, and the same period for 2020:

Component of AOCL	**Amount Reclassified from AOCL**		**Location of Losses (Gains) Recognized on the Statements of Comprehensive Income**
	2021	2020	
Amortization of net credits on postretirement benefit plan	**$ (58)**	$ (59)	Salaries and employee benefits
Reclassification of losses on cash flow hedges	**178**	8,982	Interest expense
Total reclassifications	**$ 120**	$ 8,923	

NOTE 12 — SUBSEQUENT EVENTS

The bank has evaluated subsequent events through November 9, 2021, which is the date the financial statements were issued. There are no subsequent events requiring disclosure as of November 9, 2021.

NOTE 13 — COMBINED DISTRICTWIDE FINANCIAL STATEMENTS

The accompanying financial statements exclude financial information of the bank's affiliated associations. The bank and its affiliated associations are collectively referred to as the "Texas District." The bank separately publishes certain unaudited combined financial information of the Texas District, including a condensed statement of condition and statement of income, which can be found on the bank's website at *www.farmcreditbank.com*.

ADDITIONAL REGULATORY INFORMATION
(unaudited)

Disclosure Map

The following table summarizes the interim disclosure requirements and indicates where each matter is disclosed in this quarterly report.

Disclosure Requirement	Description	September 30, 2021 Quarterly Report Reference
Scope of Application	Corporate entity and structure	Page 48
Capital Structure	Regulatory capital components	Page 49
Capital Adequacy	Risk-weighted assets	Page 50
	Regulatory capital ratios	Page 50
Capital Buffers	Quantitative disclosures	Page 50
Credit Risk	Summary of exposures	Page 51
	Industry distribution	Page 51
	Contractual maturity	Page 51
	Geographic distribution	Page 52
	Impaired loans and allowance for credit losses	Note 3 - Page 24-32
Counterparty Credit Risk-Related Exposures	Counterparty exposures	Page 52
Credit Risk Mitigation	Exposures with reduced capital requirements	Page 52
Securitization	Securitization exposures	Page 53
Equities	General description	Page 53
Interest Rate Risk for Non-Trading Activities	Interest rate sensitivity	Page 54

The following disclosures contain regulatory disclosures as required under FCA Regulation 628.63 for risk-adjusted ratios: common equity tier 1, tier 1 capital and total capital. Refer to Note 9 of the accompanying financial statements for information regarding the statutorily required permanent capital ratio. As required, these disclosures are made available for at least three years, and can be accessed at Farm Credit Bank of Texas' website at *www.farmcreditbank.com*. FCA Regulation Section 628.62(a) requires each System bank to provide timely public disclosures at the end of each calendar quarter. Qualitative disclosures that typically do not change each quarter may be disclosed annually after the end of the fourth calendar quarter, provided that any significant changes are disclosed in the interim.

Scope of Application

The disclosures herein exclude information of the bank's affiliated associations. The bank and its affiliated associations are collectively referred to as the "Texas District." The bank has no subsidiaries; therefore, the financial statements are only those of the bank and are not consolidated with any other entity.

Capital Structure

The following table provides a summary of the bank's capital structure at September 30, 2021:

(dollars in thousands)		Three-Month Average Daily Balance
Common equity tier 1 capital (CET1)		
Common cooperative equities:		
Purchased other required stock ≥7 years	**$**	**321,431**
Allocated stock ≥7 years		**36,042**
Other required member purchased stock		—
Allocated equities:		
Qualified allocated equities subject to retirement		**59,859**
Nonqualified allocated equities subject to retirement		—
Nonqualified allocated equities not subject to retirement		—
Unallocated retained earnings		**978,755**
Paid-in capital		—
Regulatory adjustments and deductions made to CET1		**(155,304)**
Total CET1	**$**	**1,240,783**
Additional tier 1 capital (AT1)		
Noncumulative perpetual preferred stock	**$**	**750,000**
Regulatory adjustments and deductions made to AT1 capital		—
Total AT1 capital		**750,000**
Total tier 1 capital	**$**	**1,990,783**
Tier 2 capital (T2)		
Common cooperative equities not included in CET1	**$**	—
T2 capital elements (allowance for loan losses)		**11,477**
Regulatory adjustments and deductions made to T2 capital		—
Total T2	**$**	**11,477**
Total capital	**$**	**2,002,260**

Capital Adequacy and Capital Buffers

The bank's risk-adjusted regulatory capital ratios are calculated by dividing the relevant total capital elements by risk-weighted assets. The following table provides the bank's risk-weighted assets at September 30, 2021:

(dollars in thousands)	Three-Month Average Daily Balance
On-Balance Sheet Assets:	
Exposures to sovereign entities	$ —
Exposures to supranational entities and Multilateral Development Banks	—
Exposures to government-sponsored entities (direct notes to associations)	3,361,963
Exposures to depository institutions, foreign banks and credit unions	2,314
Exposures to public sector entities	—
Corporate exposures, including borrower loans and exposures to other financing institutions	6,708,101
Residential mortgage exposures	—
Past due and nonaccrual exposures	10,093
Securitization exposures	61,720
Exposures to other assets	898,056
Total Risk-Weighted Assets, On-Balance Sheet Assets	11,042,247
Off-Balance Sheet Assets:	
Letters of Credit	96,288
Commitments	1,882,932
Repo-styled transactions	—
Over-the-counter derivatives	6,494
Unsettled transactions	—
Cleared transactions	—
All other off-balance sheet exposures	7,379
Total Risk-Weighted Assets, Off-Balance Sheet Assets	1,993,093
Total Risk-Weighted Assets Before Adjustments	**13,035,340**
Additions:	
Intra-system equity investments	155,303
Deductions:	
Regulatory capital deductions	(155,303)
Total Standardized Risk-Weighted Assets	**$ 13,035,340**

Capital and Leverage Ratios

As of September 30, 2021, the bank was well-capitalized and exceeded all capital requirements. The bank's excess leverage of 1.49% is equal to the tier 1 leverage ratio minus the minimum tier 1 leverage ratio requirement. Because the bank's capital and leverage ratios exceeded the minimum regulatory requirements of 10.50% and 5.00%, respectively, the bank currently has no limitations on its distributions and discretionary bonus payments. The aggregate amount of eligible retained income was $78,346 as of September 30, 2021.

	Regulatory Requirements Including Capital Conservation Buffers	Ratios as of September 30, 2021	Calculated Buffers
Common equity tier 1 capital ratio	7.00 %	9.52 %	2.52 %
Tier 1 capital ratio	8.50	15.27	6.77
Total capital ratio	10.50	15.36	4.86
Tier 1 leverage ratio	5.00	6.49	1.49

Credit Risk

System entities have specific lending authorities within their chartered territories. The bank is chartered to serve its associations in Texas, Alabama, Mississippi, Louisiana and most of New Mexico. Our chartered territory is referred to as the district. FCBT serves its chartered territory by lending to the district's Federal Land Credit Association (FLCA) and Agricultural Credit Associations (ACAs). The allowance for loan losses is determined based on a periodic evaluation of the loan portfolio, which identifies loans that may be impaired based on characteristics such as probability of default (PD) and loss given default (LGD). Allowance needs by geographic region are only considered in circumstances that may not otherwise be reflected in the PD and LGD such as flooding or drought. There was no allowance attributed to a geographic area as of September 30, 2021.

Refer to the Risk-Adjusted Asset table on page 48 for the bank's total and average loans, investment securities, off-balance sheet commitments and over-the-counter (OTC) derivatives. The following table illustrates the bank's total exposure (including commitments) by loan type at September 30, 2021.

(dollars in thousands)		Total Exposure
Direct notes receivable from district associations	$	20,816,607
Real estate mortgage		994,790
Production and intermediate term		1,260,012
Agribusiness		
Loans to cooperatives		1,041,258
Processing and marketing		3,926,885
Farm-related business		360,031
Communications		710,191
Energy (rural utilities)		2,157,224
Water and waste disposal		268,645
Mission-related		2,259
Rural residential real estate		1,364
International		157,240
Leases		9,755
Loans to other financing institutions		72,000
Total	$	31,778,261

The following table provides an overview of the remaining contractual maturity of the bank's credit risk portfolio categorized by exposure at September 30, 2021. The remaining contractual maturity for the bank's direct notes from associations is included in the loans line item based on the contractual terms of the underlying association retail loans. Unfunded commitments for direct notes from associations reflects the aggregate remaining amount that the associations can borrow from the bank. It is included in the unfunded commitments line item within the due in one year or less column.

(dollars in thousands)		Due in one year or less		Due after one year through five years		Due after five years		Total
Loans	$	6,106,247	$	8,748,496	$	9,412,387	$	24,267,130
Off-balance sheet commitments								
Financial letters of credit		8,097		97,552		2,750		108,399
Performance letters of credit		4,439		9,853		389		14,681
Commercial letters of credit		1,452		1,622		—		3,074
Unfunded commitments		4,463,278		2,718,062		184,775		7,366,115
Investments		179,362		922,913		5,287,650		6,389,925
Derivatives (notional)		30,000		240,000		700,000		970,000
Total	$	10,792,875	$	12,738,498	$	15,587,951	$	39,119,324

The following table illustrates the bank's total exposure (including commitments) by geographic distribution based on the headquarters location of the underlying retail loans for the bank and affiliated associations at September 30, 2021:

State	Percentage
Texas	50 %
Alabama	6
Mississippi	6
Louisiana	4
California	3
All other states	31
	100 %

Refer to Note 3 of the accompanying financial statements for amounts of impaired loans with or with no related allowance, loans in nonaccrual status and greater than 90 days past due, loans past due greater than 90 days and still accruing, the allowance at the end of each reporting period, charge-offs during the period, and changes in components of our allowance for credit losses.

Counterparty Credit Risk and Credit Risk Mitigation

The table below shows derivatives by underlying exposure type, segregated among interest rate caps, pay-fixed swaps and receive-fixed swaps, which were traded in OTC markets at September 30, 2021.

	Notional	Gross Positive Fair Values
Interest rate caps	$ 145,000	$ 309
Pay-fixed swaps	825,000	27,567
Total Derivatives	$ 970,000	$ 27,876

The following table provides the total exposure covered by guarantees/credit derivatives for each separately disclosed credit risk portfolio and the risk-weighted asset amount associated with that exposure. The bank did not hold eligible financial collateral for its loan, investment and derivative portfolios at September 30, 2021.

Government Guaranteed Asset Type (dollars in thousands)	90-Day Average Balance	Risk Weighting	Risk-Weighted Amount
Investments	$ 3,929,500	0%	$ —
Loans	2,138	0%	—
Total	$ 3,931,638		$ —

Securitization

The bank currently only participates in credit-related securitizations as investors through the purchase of ABS as included in its investment portfolio. The bank also holds securitization exposures through the purchase of U.S. government and agency-guaranteed securities. The bank did not transfer any exposures that it had originated or purchased from a third party in connection with a securitization of assets as of September 30, 2021, nor did it have any outstanding exposures that it intended to be securitized at September 30, 2021. The bank did not retain any credit-related re-securitization exposures at September 30, 2021.

Below is an overview of our purchased securitization exposures held at September 30, 2021, by exposure type and categorized by risk-weighting band and risk-based capital approach. At September 30, 2021, the bank did not hold any off-balance sheet securitization exposures nor were any securitization exposures deducted from capital.

Description of Securitization	Risk-Based Capital Approach	Exposure Amount (dollars in thousands)	Risk Weighting
Agency MBS:			
GNMA	Standardized risk weighting	$ 2,411,563	0%
FNMA and FHLMC	Standardized risk weighting	2,692,278	0%-20%
Total agency MBS		$ 5,103,841	
ABS:			
Small Business Administration	Standardized risk weighting	$ 116,694	0%
ABS	Gross-up	48,522	20%-100%
ABS	Gross-up	7,915	101%-125%
ABS	Gross-up	—	126%-150%
Total ABS		$ 173,131	

Equities

The bank is a limited partner in certain Rural Business Investment Companies (RBICs) for various relationship and strategic reasons. These RBICs facilitate equity and debt investments in agriculture-related businesses that create growth and job opportunities in rural America. These investments are accounted for under the equity method, as the bank is considered to have significant influence. These investments are not publicly traded, and the book value approximates fair value. The bank had no unrealized gains or losses either carried on the balance sheet or recognized through earnings.

As of September 30, 2021 (dollars in thousands)	Disclosed in Other Assets	Life-to-Date (Losses) Recognized in Retained Earnings*
RBICs	$ 18,747	$ (3,879)

*Retained earnings is included in common equity tier 1 and total capital ratios.

Interest Rate Risk

The following tables set forth the bank's projected annual net interest income and market value of equity for interest rate movements as prescribed by policy, based on the bank's interest-earning assets and interest-bearing liabilities at September 30, 2021:

Basis points:	**-2***	**+100**	**+200**
Change in net interest income	-0.05%	0.90%	0.36%
Change in market value of equity	0.06%	-5.57%	-14.95%

*When the 3-month Treasury bill is below 4.00%, the shock-down 200 scenario is replaced with a shock-down equal to half of the 3-month Treasury bill. The bank measures interest rate risk on a quarterly basis.

For interest rate risk management, the $750 million noncumulative perpetual preferred stock was included in liabilities.