Quarterly Report to Shareholders





Your future grows here

as of June 30, 2023

The following discussion summarizes the financial position and results of operations of American AgCredit, ACA and its subsidiaries (collectively "the Association") as of the second quarter of 2023. This commentary should be read with the accompanying consolidated financial statements and the related notes appearing in this report along with our 2022 Annual Report. The discussion includes significant known trends, commitments, events, or uncertainties that have impacted or are reasonably likely to impact our financial condition and results of operations. The accompanying consolidated financial statements were prepared under the oversight of the Audit Committee of our Board of Directors.

Our annual and quarterly reports to shareholders are available on our website, <u>www.agloan.com</u>, or can be obtained free of charge by calling our corporate headquarters at (800) 800-4865. Additionally, the financial condition and results of operations of CoBank, ACB (CoBank), our funding bank, materially affect the risk associated with shareholder investments in American AgCredit. Shareholders of American AgCredit may obtain copies of CoBank's Quarterly or Annual Report to Shareholders free of charge by accessing CoBank's website, <u>www.CoBank.com</u>, calling (800) 542-8072, or mailing CoBank at 6340 S. Fiddlers Green Circle, Greenwood Village, CO 80111.

As a cooperative, the voting stock of American AgCredit is owned by the members we serve. Our territory extends across a diverse agricultural region that includes parts of California, Kansas, Oklahoma, Colorado, and New Mexico, as well as the states of Nevada and Hawaii.

Forward Looking Statements

Any forward-looking statements in this report are based on current expectations and are subject to uncertainty and changes in circumstances. Actual results may differ materially from expectations due to a number of risks and uncertainties. More information about these risks and uncertainties is contained in our 2022 Annual Report. We undertake no duty to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

Merger Activity

On October 26, 2022, the boards of directors of American AgCredit, ACA and Farm Credit of New Mexico, ACA approved an agreement and plan of merger under which Farm Credit of New Mexico would merge with and into American AgCredit (the "Merger"). On April 5, 2023, FCA granted preliminary approval of the Merger. Each Association held a special meeting of stockholders on May 9, 2023, at which the stockholders of both Associations voted to approve the Merger. The regulatory 35-day reconsideration period required before FCA issues final approval expired on June 14, 2023. On June 22, 2023, the FCA notified Farm Credit of New Mexico that a voting stockholder had filed a petition for reconsideration. The FCA determined the petition was properly filed by the Farm Credit of New Mexico voting stockholder and complied with the requirements of the FCA regulations. Accordingly, Farm Credit of New Mexico must hold a reconsideration vote. The Farm Credit of New Mexico board has called a special meeting of stockholders for August 25, 2023, at which time the reconsideration vote will take place. If the reconsideration vote is favorable, a new merger effective date of October 1, 2023, or as soon thereafter as practicable, has been agreed upon.

Economic Overview

The second quarter of 2023 continued a trend of declining inflation and had the first interest rate hike pause at a Federal Open Market Committee (FOMC) meeting in over a year. However, the FOMC raised interest rates by 25 basis points to a range of 5.25% to 5.50% in July. Annual inflation was 3.0% in June 2023, which is significantly reduced from the recent high of 9.1% in June 2022 and the lowest since March 2021. Notably, the federal funds rate now exceeds annualized inflation. Historically, interest rates have needed to exceed inflation by up to 2% for a sustained time period prior to rate cuts occurring. A significant macroeconomic unknown is the effect of student loan repayments expected to resume later in the year, which have generally been on pause for over three years. Additionally, the U.S. Treasury is likely to issue around \$1 trillion in new debt through September as the government rebuilds its cash position to normal levels following the increase in the congressional debt limit. This may have the effect of raising shorter-term rates and causing reduced deposit balances at banks, which could further strain banking system stability. The 30-year fixed rate mortgage ended June at 6.71%, as measured by the Freddie

Mac Primary Mortgage market survey. This is higher on a relative basis by 15% and 122% as compared to one and two years ago, respectively.

Domestic equity markets continued to experience gains, especially in the technology sector. Year-to-date, the S&P 500 rose 16%, as compared to a decline of 21% for same period a year ago. The U.S. dollar compared to other foreign currencies is expected to remain above pre-COVID averages in 2023, but below the exceptionally strong levels seen in mid-2022. Prices for almonds, cotton, soybeans, and other commodities which rely on export markets will likely be negatively impacted. Retail food prices are starting to show declines among lowering energy and underlying commodity prices. Although unemployment is still low at 3.6% and the labor market is still considered to be very tight, there are conflicting metrics on the job market's strength, such as both increased wages and initial unemployment applications. While inflation and the jobs market have cooled, the general consensus is that both still are impactful enough to create the possibility of at least one additional rate increase for this year.

Drought conditions vary widely based upon geographic region. Only small portions of California's southeast Mojave Desert area and adjacent Nevada land are in drought conditions. Colorado is entirely drought free, however sizable portions of Kansas remain in extreme and exceptional drought conditions. Snowpack melt in California is continuing to cause flooding and the movement of livestock to higher ground. Heavy rains early in the year also resulted in poor growing conditions for some crops, such as almonds and other tree nuts. Water availability for vineyards remains ample.

Commodity Review and Outlook

The Association's commodity portfolio remains well-diversified. Wine grapes and wine and tree fruits and nuts lead our commodity portfolio at 16.18% and 14.31%, respectively, followed by field crops at 13.02%, dairies and dairy products at 10.86%, beef at 10.37%, and forest products at 8.20%. The top six commodities make up 72.94% of the total portfolio with the remaining 27.06% spread over sixteen additional categories, including an "Other" category. The bulk of the Association's wine portfolio continues to be centered in the super- and ultra-premium segments of the wine market. Tree fruits and nuts consists primarily of almonds, walnuts, and other orchards in California's Central Valley and Hawaii. Field crops consist primarily of wheat, corn, soybeans, alfalfa, sorghum, and other grains.

Following is a summary of economic conditions among the Association's significant commodities:

- Wine grapes and wine: The wine market's struggles appear to have both deepened and broadened year-to-date. U.S. wine sales are declining at a slightly faster rate and the contraction now extends to nearly all sales channels, price tiers and varietals. Sales may see a slower rate of decline during the second half of the year if inflation continues to slow and the U.S. avoids a recession, but a return to outright growth in sales volume appears unlikely. With retail wine sales declining across nearly all segments of the market, grape-buying activity in California has been slow. The grape crop is running two to four weeks behind schedule due to the heavy winter rains and a cool, cloudy spring in California. Early reports suggest that this year's crop is shaping up to be of average size, or just above average, depending on the region and varietal. An average-sized crop is likely to lead to some softening in grape prices. Regions producing for the premium and particularly the upper tiers of the wine market should be better positioned to absorb a larger crop than those focused on the value end.
- Tree fruits and nuts: Heavy rains have proved to be a double-edge sword for tree fruits and nuts. While they have supplied drought relief and thus brightened longer-term prospects of tree fruits and nuts, shorter term prospects still are subdued. Cool weather, heavy rain, and wind created unfavorable conditions for pollination. Additionally, a still historically strong U.S. dollar has decreased overall nut exports. Uncommitted inventory has stayed at historically elevated levels, with uncommitted almond inventory reaching 400 million pounds in May 2023. Because of excess almond inventory, prices are expected to come down throughout the rest of the year. The USDA in July forecasted a 2023 almond crop of 2.57 billion pounds, which is the same as last year's crop. The imputed average yield on the 2023 crop would be the lowest since 2005. Looking ahead, the 2023 crop and future market conditions may allow the market to absorb its oversupply. This could be challenging given the U.S. dollar strength despite weakening since

late in 2022. The industry's reliance on the export market will have to come down between now and harvest if significant inventory is to move. Early reports of cherry production and sales paint a profitable picture for most growers.

- Field crops: Severe drought conditions in the Midwest, notably Kansas, is curbing expected grain yields, especially hard-red wheat. As of the end of June, 65% of the Midwest was in moderate or worse drought conditions. A substantial part of the nation's winter wheat is grown in areas with the worst drought conditions and is expected to be abandoned. U.S. wheat also faces trade headwinds as current prices are over \$100 per metric ton higher than that of key competitors such as Russia, Ukraine, and France, although the U.S. continues to be the residual supplier of wheat globally. Corn demand is facing potential headwinds due to concerns over the declining size of the cattle herd and the exceptional Brazilian safrinha corn harvest. Export demand for corn has also softened due to the strong U.S. dollar. Based on increasing demand for renewable diesel and sustainable aviation fuel, the soybean processing industry has announced over 30 new or expanded crushing facilities to be built in the next four years. Many of these are paired with new or existing refining complexes to produce biofuels from the resulting soy oil. Due to competition from Brazil and the strong U.S. dollar, in June the USDA reduced estimated U.S. soybean exports for the 2022/2023 marketing year to a total of 2 billion bushels, down from 2.155 billion bushels last August. Projections for new crop exports are even lower, at 1.975 billion bushels.
- **Dairy:** Milk prices have plummeted in June, putting a damper on a seasonally strong time frame. While the dramatic decline from last year's record highs is significant, these price levels are still near their long-term averages. Current milk prices are well below break-even levels for almost all producers at this point, and for most have been there through the entire first half of the year. Milk production in the U.S. is still up marginally against last year, but is still down year to-date through May compared to two years ago. Faced with negative milk profitability and high cull values, a contraction in the milk cow herd will likely be the catalyst for milk prices to turn around later this year. The USDA's most recent tally counted 9.43 million milk cows in May. U.S. dairy exports kept reasonable strength through the first quarter, but are showing some signs of a slowdown recently. Supply chains, hesitant to hold excess inventory in the current high interest rate environment, continue to reduce prices to keep product moving rather than allowing inventories to build.
- Beef: U.S. cattle slaughter was down about 3.9% year over year in the first five months of 2023, resulting in lower availability of wholesale beef products for consumers. Although down from last year, year-to-date cattle slaughter averaged about 2,300 head per week above the earlier five-year average. Both cattle slaughter and beef production in 2023 should be down in the 5% range as compared to 2022. Prices for all classes of cattle are rallying in response to tighter available supplies. Fed cattle prices in the second quarter of 2023 set a record high. Further tightening of feeder cattle and calf supplies during the second half of 2023 is expected. Now-record fed cattle prices have feed yards chasing replacement cattle and driving prices markedly higher. This is expected to further drive expansion plans at many cow-calf operations and create even tighter feeder cattle and calf supplies. The Supreme Court's upholding of California Proposition 12, which pertains to pork sow housing and handling requirements, could translate to a multi-billion-dollar annualized shift to other proteins, with beef standing to significantly benefit.
- Forest products: Unusual data patterns relating to forest products have resulted due to tighter macroeconomic undercurrents alongside overall strong demand. For example, the 30-year fixed rate mortgage averaged above 6.5% in the second quarter, the highest second-quarter average since 2006. In April, housing starts sharply declined from a year ago, but housing starts rebounded the following month to the highest May reading since 2006 despite the tighter economic undercurrents. The three-month moving average for housing starts in May was consistent with 2021 and 2022 averages. May spending for residential construction, including remodels and home improvement projects, was about 11% below year-ago levels. However, nonresidential construction spending was 17% higher. Prices for most forest products related to construction declined alongside both initial slower housing starts and residential construction and have yet to proportionally appreciate from the recent increased overall demand. Most producers of forest products related to construction expected that prices would return near the pre-Covid average, and therefore did not financially extend themselves based on record prices. Although operating costs have increased, most companies still expect to be profitable in 2023 and should be able to support a healthy capital reserve to buffer against future volatility in prices.

Loan Portfolio

The total loan and lease balance was \$17.7 billion at June 30, 2023, an increase of \$223.5 million from \$17.4 billion at December 31, 2022. The increase was caused both by draws on existing facilities and some new originations, partially offset by reduced balances overall on realestate secured mortgages as a result of the interest rate environment. On a year-over-year basis, loans increased by \$1.2 billion when compared to June 30, 2022, resulting in a growth rate of 7.00%. Credit quality remains strong at 96.13% as of June 30, 2023, compared to 97.13% as of December 31, 2022. Credit quality is a measurement of loans classified as either "Acceptable" or "Other Assets Especially Mentioned" divided by total loans under Farm Credit Administration's Uniform Classification System.

In addition to the \$17.7 billion of loans and leases reported on our balance sheet, we serviced an additional \$8.2 billion of loans and syndicated balances for other institutions as of June 30, 2023, as compared to \$5.4 billion at June 30, 2022.

Nonearning Assets

Nonaccrual loans increased by \$57.7 million to \$229.9 million at June 30, 2023, compared to \$172.2 million at December 31, 2022. The change in nonaccrual loans was primarily due to transfers to nonaccrual status and disbursements on nonaccrual loans of \$134.9 million, offset by \$57.6 million year-to-date repayments on nonaccrual loans, charge-offs of nonaccrual loans of \$19.1 million, and loans reinstated to accrual status of \$0.4 million. Nonaccrual loans represented 1.30% of total loans at the end of June 30, 2023, compared to 0.61% at June 30, 2022, and 0.99% at December 31, 2022.

Allowance for Credit Losses

The allowance for credit losses is composed of the allowance for credit losses on loans and the allowance for credit losses on unfunded commitments. The allowance for credit losses on loans is an estimate of expected credit losses on loans in our portfolio as of the financial statement date. The appropriate level of allowance for loan losses is determined based on periodic evaluation of factors such as loan loss history, portfolio quality, estimated collateral values, and current economic and environmental conditions. Total allowance for credit losses was \$20.7 million at June 30, 2023, which included a \$19.6 million allowance for loan losses and a \$1.1 million reserve for unfunded commitments. The allowance for credit losses was decreased on January 1 by \$31.6 million due to the adoption of the new credit loss accounting guidance (CECL). See Note 1 to the Consolidated Financial Statements.

Financial Condition and Results of Operations

Net income for the six months ended June 30, 2023, was \$198.9 million compared to \$190.7 million for the same period last year, an increase of \$8.3 million. The change in net income was primarily due to the following reasons:

- Net interest income increased by \$25.2 million year-over-year due to growth in accrual loan volume aided by a slightly higher net interest margin. The Association's weighted average interest rate on interest-bearing liabilities was 3.88% and 0.85% as of June 30, 2023 and 2022, respectively.
- The Association recorded a provision for credit losses of \$13.8 million through June 30, 2023, as compared to a reversal of credit losses of \$1.8 million a year ago. The prior year reversal was primarily due to changes in assumptions in the provision estimate made in June 2022. The current year provision is primarily a result of the Association's increasing loan portfolio and some credit quality decline.
- Non-interest income increased by \$11.9 million year-over-year. Overall, patronage income, crop insurance commissions contained within financially related services, and servicing fees and late charges increased, while loan origination fees caused by fewer loan originations in a rising interest rate environment decreased.
- FCSIC insurance, a component of noninterest operating expense, increased by \$0.1 million when compared to June 2022. The FCSIC board voted to set the insurance premium assessment rate on adjusted insured debt to 18 basis points for 2023, as compared to 20 basis points for 2022. While the 2023 assessment rate is 10% less than 2022, the decrease in the overall expense was largely offset by the Association's increased adjusted insured debt, which the assessment is based on.

• Overall, non-interest operating expenses increased by \$13.2 million compared to the same period last year, primarily caused by increases in salaries and benefits due to higher headcount, higher travel and lodging expenses from price inflation and increased travel, and costs related to the proposed merger with Farm Credit of New Mexico such as technology integration costs.

			Increase
	For the Six M	lonths Ended	(Decrease) in
_	June 30, 2023	June 30, 2022	Net Income
Net interest income	\$263,749	\$238,579	\$25,170
(Provision for)/Reversal of credit losses	(13,756)	1,827	(15,583)
Patronage income	66,579	57,843	8,736
Other income, net	13,822	10,684	3,138
Non-interest expenses	(131,438)	(118,254)	(13,184)
Provision for income taxes	(11)	(17)	6
Net income	\$198,945	\$190,662	\$8,283

The major components of change in net income are summarized as follows (dollars in thousands):

The following table shows the Association's year-to-date annualized return on average assets, return on equity, and net interest margin.

	June	e 30,
	2023	2022
Return on average assets	2.16%	2.23%
Return on common equity	15.01%	15.52%
Return on total equity	13.49%	13.83%
Net interest margin	3.02%	2.94%

Liquidity and Funding

Liquidity is necessary to meet our financial obligations, such as paying our note with CoBank, funding loans and other commitments, and funding operations in a low-cost manner. Our liquidity policy is intended to manage short-term cash flow, maximize debt reductions, and liquidate nonearning assets. Our direct loan with CoBank, cash on hand, and borrower loan repayments provide adequate liquidity to fund our ongoing operations and other commitments. The Association also received funding from preferred stock, subordinated debt, and funds held accounts. The direct note with CoBank is governed by a General Financing Agreement which was renewed effective June 1, 2023, for an additional five-year term.

Shareholders' Equity

The Association's capital position remains strong. Total shareholders' equity was \$3.0 billion at the end of the second quarter, an increase of \$222.0 million from \$2.8 billion at December 31, 2022. The increase in capital is primarily the result of the Association's year-to-date net income. The Association was in compliance with all capital ratio requirements at June 30, 2023. The Association's strong earnings and capital position enable us to effectively serve our mission and our customers and support our ability to maintain our cash patronage distribution program and pay preferred stock dividends.

Certification

The undersigned certify that they have reviewed this report and that it has been prepared in accordance with all applicable statutory and/or regulatory requirements, and that the information contained herein is true, accurate, and complete to the best of his knowledge and belief.

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Gary Harshberger Chairman

August 9, 2023

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Curt Hudnutt Chief Executive Officer

Jerry Rose

Jerry Rose Chief Strategy and Financial Officer

Consolidated Statements of Condition (dollars in thousands)

	June 30, 2023	December 31, 2022		
	(Unaudited)	(Audited)		
ASSETS				
Loans	\$17,655,274	\$17,431,808		
Less: allowance for credit losses on loans	(19,589)	(49,448)		
Net loans	17,635,685	17,382,360		
Cash	35,321	58,269		
Accrued interest receivable	198,654	179,489		
Investment in CoBank	460,416	457,636		
Investment in AgDirect	26,594	26,521		
Premises and equipment, net	108,945	111,254		
Other property owned	-	4,160		
Other assets	230,876	281,862		
Total assets	\$18,696,491	\$18,501,551		
LIABILITIES				
Notes payable to CoBank	\$14,973,682	\$14,769,000		
Subordinated debt	197,840	197,757		
Funds Held accounts	278,402	296,137		
Accrued interest payable	71,730	58,201		
Cash patronage and preferred stock dividends payable	487	185,747		
Reserve for unfunded commitments	1,144	3,900		
Other liabilities	129,876	169,505		
Total liabilities	15,653,161	15,680,247		
SHAREHOLDERS' EQUITY				
Preferred stock	300,000	300,000		
Common stock and participation certificates	10,588	10,604		
Additional paid-in capital	677,110	677,110		
Unallocated retained surplus	2,069,673	1,850,386		
Accumulated other comprehensive loss	(14,041)	(16,796)		
Total shareholders' equity	3,043,330	2,821,304		
Total liabilities and shareholders' equity	\$18,696,491	\$18,501,551		

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

Consolidated Statements of Comprehensive Income (dollars in thousands)

(Unaudited)	For the Three M June 3		For the Six Months Ended June 30,		
(Chundhea)	2023	2022	2023	2022	
INTEREST INCOME					
Loans	\$287,083	\$170,076	\$560,644	\$321,136	
Total interest income	287,083	170,076	560,644	321,136	
INTEREST EXPENSE					
Notes payable CoBank	151,858	45,425	288,443	77,455	
Subordinated notes	1,729	1,729	3,458	3,458	
Funds Held and other interest	2,339	1,038	4,994	1,644	
Total interest expense	155,926	48,192	296,895	82,557	
Net interest income	131,157	121,884	263,749	238,579	
(Provision for)/Reversal of credit losses	(5,487)	(3,876)	(13,756)	1,827	
Net interest income after provision for credit losses	125,670	118,008	249,993	240,406	
NON-INTEREST INCOME					
Patronage income from CoBank	19,680	18,070	39,101	37,407	
Patronage income from other Farm Credit institutions	16,155	11,057	25,793	18,939	
Patronage income from AgDirect	1,012	969	1,685	1,497	
Loan origination fees	2,383	2,579	4,183	4,753	
Servicing fees and late charges	3,063	1,466	3,835	1,970	
Financially related services	1,360	652	2,455	1,443	
Miscellaneous	2,149	1,223	3,349	2,518	
Total non-interest income	45,802	36,016	80,401	68,527	
NON-INTEREST EXPENSES					
Salaries and benefits	45,094	35,944	82,204	71,851	
Occupancy and equipment expense	2,621	2,494	5,116	5,108	
Insurance fund premiums	6,487	7,835	12,889	13,018	
Supervisory and examination expense	844	915	1,767	1,685	
Other operating expenses	15,724	15,315	29,462	26,592	
Total non-interest expenses	70,770	62,503	131,438	118,254	
Income before income taxes	100,702	91,521	198,956	190,679	
Provision for income taxes	(11)	(17)	(11)	(17)	
Net income	\$100,691	\$91,504	\$198,945	\$190,662	
COMPREHENSIVE INCOME					
Actuarial gain in retirement obligation	1,377	1,051	2,755	2,103	
Total comprehensive income	\$102,068	\$92,555	\$201,700	\$192,765	

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

Consolidated Statements of Changes in Shareholders' Equity (dollars in thousands)

For the Six Months Ended June 30, 2022 and 2023

(Unaudited)	Common Stock and Participation Certificates	Preferred Stock	Additional Paid-in Capital	Unallocated Retained Surplus	Accumulated Other Comprehensive Loss	Total Shareholders' Equity
Balance at December 31, 2021	\$10,495	\$300,000	\$677,110	\$1,694,971	\$(19,121)	\$2,663,455
Comprehensive income				190,662	2,103	192,765
Stock/participation certificates issued	606					606
Stock/participation certificates retired	(445)					(445)
Preferred stock dividends				(7,875)		(7,875)
Adjustment to prior period patronage accrual				(1,779)		(1,779)
Balance at June 30, 2022	\$10,656	\$300,000	\$677,110	<u>\$1,875,979</u>	\$(17,018)	\$2,846,727
Balance at December 31, 2022	\$10,604	\$300,000	\$677,110	\$1,850,386	\$(16,796)	\$2,821,304
Comprehensive income				198,945	2,755	201,700
Stock/participation certificates issued	386					386
Stock/participation certificates retired	(402)					(402)
Preferred stock dividends				(7,875)		(7,875)
Adjustment to prior period patronage accrual				(3,430)		(3,430)
Cumulative effect adjustment				31,647		31,647
Balance at June 30, 2023	\$10,588	\$300,000	\$677,110	\$2,069,673	\$(14,041)	\$3,043,330

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

(Unaudited)

NOTE 1 - ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

A description of the organization and operations of American AgCredit, ACA (Association), the significant accounting policies followed, and the financial condition and results of operations as of and for the year ended December 31, 2022, are contained in the 2022 Annual Report to Shareholders (2022 Annual Report). The financial statements were prepared under the oversight of the audit committee of the board of directors.

The accompanying unaudited second quarter 2023 financial statements have been prepared in accordance with accounting principles generally accepted 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 as of and for the year ended December 31, 2022, as contained in the 2022 Annual Report.

In the opinion of management, all adjustments, consisting of normal recurring adjustments, necessary for a fair statement of results for the interim periods have been made. The preparation of 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 full year ending December 31, 2023. Descriptions of the significant accounting policies are included in the 2022 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.

Recently Adopted or Issued Accounting Pronouncements

The Association adopted the Financial Accounting Standards Board (FASB) guidance entitled "Measurement of Credit Losses on Financial Instruments" and other subsequently issued accounting standards updates related to current expected credit losses (CECL) on January 1, 2023. This guidance replaced the previous methodology with a single allowance framework that estimates CECL over the remaining contractual life for all financial assets measured at amortized cost and certain off-balance-sheet credit exposures. This guidance is applied on a modified retrospective basis. This framework requires management to consider in its estimate of the allowance for credit losses (ACL) relevant historical events, current conditions and reasonable and supportable forecasts that consider macroeconomic conditions. The ACL comprises the allowance for credit losses on loans (ACLL) and the reserve for unfunded commitments, which is presented on the balance sheet in liabilities.

Also adopted effective January 1, 2023, was the updated guidance entitled "Financial Instruments – Credit Losses: Troubled Debt Restructurings and Vintage Disclosure." This guidance requires the creditor to determine whether a modification results in a new loan or a continuation of an existing loan, and adds disclosures specific to modifications with borrowers that are experiencing financial difficulties. The update eliminated the accounting guidance for troubled debt restructurings by creditors. The update also requires disclosure of current period gross write-offs by year of origination for financing receivables and net investments in leases.

The following table presents the balance sheet impact to the allowance for credit losses and retained earnings upon adoption of this guidance on January 1, 2023:

(in millions)	December 31, 2022	CECL Adoption Impact	January 1, 2023
Assets:			
Allowance for credit losses on loans	\$(49.4)	\$28.4	\$(21.0)
Deferred tax assets	\$9.3	\$(3.1)	\$6.2
Deferred tax valuation allowance	\$(4.2)	\$3.1	\$(1.1)
Liabilities:			
Reserve for unfunded commitments	\$3.9	\$(3.2)	\$0.7
Retained earnings:			
Unallocated retained surplus, net of tax	\$1,850.4	\$31.6	\$1,882.0

In December 2022, the FASB issued an update entitled "Reference Rate Reform - Deferral of the Sunset Date of Topic 848." In March 2020, the FASB issued guidance entitled "Facilitation of the Effects of Reference Rate Reform on Financial Reporting (Reference Rate Reform)," which provided optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions affected by reference rate reform to ease the potential burden related to reference rate reform (transition away from the London Inter-Bank Offered Rate (LIBOR)) with the optional amendments effective as of March 12, 2020 through December 31, 2022, the sunset date. At the time the update was issued, the expectation was that LIBOR would cease to be published after December 31, 2021.

In January 2021, the FASB issued an update to Reference Rate Reform whereby certain derivative instruments could be modified to change the rate used for margining, discounting, or contract price alignment. An entity could elect to apply the new amendments on a full retrospective basis as of any date from the beginning of an interim period that includes or is subsequent to March 12, 2020, or on a prospective basis to new modifications from any date within an interim period that includes or is subsequent to the date of the update, up to the date that financial statements are available to be issued. These amendments did not apply to contract modifications made or new hedging relationships entered into after December 31, 2022, and existing hedging relationships evaluated for effectiveness in periods after December 31, 2022.

Subsequent to the issuance of the January 2021 update, it was announced that the intended cessation date for various tenors of LIBOR would be June 30, 2023, thus necessitating the update to the sunset date. The amendments in the current update defer the sunset date from December 31, 2022 to December 31, 2024, after which entities will no longer be permitted to apply the relief.

Loans and Allowance for Credit Losses

Loans are generally carried at their principal amount outstanding adjusted for charge-offs and deferred loan fees or costs. Loan origination fees and direct loan origination costs are netted and capitalized, and the net fee or cost is amortized over the life of the related loan as an adjustment to interest income. Loan prepayment fees are reported in interest income. Interest on loans is accrued and credited to interest income based on the daily principal amount outstanding.

Nonaccrual Loans

Nonaccrual loans are loans for which there is reasonable doubt that all principal and interest will not be collected according to the original contractual terms and are generally considered substandard or doubtful, which is in accordance with the loan risk rating model as described in Note 2. A loan is considered contractually past due when any principal repayment or interest payment required by the loan instrument is not received on or before the due date. A loan shall remain contractually past due until it is modified or until the entire amount past due, including principal, accrued interest, and penalty interest incurred as the result of past due status, is collected or otherwise discharged in full.

Consistent with prior practice, loans are generally placed in nonaccrual status when principal or interest is delinquent for 90 days (unless adequately secured and in the process of collection), circumstances indicate that collection of principal and interest is in doubt or legal action, including foreclosure or other forms of collateral conveyance, has been initiated to collect the outstanding principal and interest. At the time a loan is placed in nonaccrual status, accrued interest that is considered uncollectible is reversed (if accrued in the current year) or charged against the allowance for loan losses (if accrued in prior years). Loans are charged-off at the time they are determined to be uncollectible.

When loans are in nonaccrual status, interest payments received in cash are generally recognized as interest income if the collectability of the loan principal is fully expected and certain other criteria are met. Otherwise, payments received on nonaccrual loans are applied against the recorded investment in the loan asset. Nonaccrual loans are returned to accrual status if all contractual principal and interest is current, the borrower is fully expected to fulfill the contractual repayments terms, and after remaining current as to principal and interest for a sustained period or have a recent repayment pattern demonstrating future repayment capacity to make on-time payments. If previously unrecognized interest income exists at the time the loan is transferred to accrual status, cash received at the time of or subsequent to the transfer should first be recorded as interest income until such time as the recorded balance equals the contractual indebtedness of the borrower.

Accrued Interest Receivable

The Association elected to continue classifying accrued interest on loans in accrued interest receivable and not as part of loans on the Consolidated Statements of Condition. The Association also elected to not estimate an allowance for losses on interest receivable balances because the nonaccrual policies in place provide for the accrual of interest to cease on a timely basis when all contractual amounts are not expected.

Loan Modifications to Borrowers Experiencing Financial Difficulty

Loan modifications may be granted to borrowers experiencing financial difficulty. Modifications can be in the form of one or a combination of principal forgiveness, interest rate reduction, other-than-insignificant payment delay or a term extension. Covenant waivers and modifications of contingent acceleration clauses are not considered term extensions.

Collateral Dependent Loans

Collateral dependent loans are loans secured by collateral, including but not limited to agricultural real estate, crop inventory, equipment, and livestock. CECL requires an entity to measure the expected credit losses based on fair value of the collateral at the reporting date when the entity determines that foreclosure is probable. Additionally, CECL allows a fair value practical expedient as a measurement approach for loans when the repayment is expected to be provided substantially through the operation or sale of the collateral when the borrower is experiencing financial difficulties. Under the practical expedient measurement approach, the expected credit losses are based on the difference between the fair value of the collateral less estimated costs to sell and the amortized cost basis of the loan.

Allowance for Credit Losses

Beginning January 1, 2023, the ACL represents the estimated current expected credit losses over the remaining contractual life of financial assets measured at amortized cost and certain off-balance sheet credit exposures. The ACL takes into consideration relevant information about past events, current conditions, and reasonable and supportable macroeconomic forecasts of future conditions. The contractual term excludes expected extensions, renewals, and modifications unless the extension or renewal options are not unconditionally cancellable. The ACL comprises the allowance for credit losses on loans (ACLL) and the reserve for unfunded commitments, which is presented on the balance sheet in other liabilities.

Determining the appropriateness of the allowance is complex and requires judgment by management about the effect of matters that are inherently uncertain. Subsequent evaluations of the loan portfolio, considering macroeconomic conditions, forecasts and other factors prevailing at the time, may result in significant changes in the ACL in those future periods.

Methodology for Allowance for Credit Losses on Loans

The ACLL represents management's estimate of credit losses over the remaining expected life of loans.

The Association employs a disciplined process and methodology to establish its ACLL that has two basic components: first, an assetspecific component involving individual loans that do not share risk characteristics with other loans and the measurement of expected credit losses for such individual loans; and second, a pooled component for estimated expected credit losses for pools of loans that share similar risk characteristics. The Association utilizes the loan's accrual status to bifurcate loans into these two categories.

For nonaccrual loans, the collateral-dependent practical expedient is used, which is defined as fair value of the collateral less selling costs. The reserve is calculated as the amount the net receivable value (NRV) is less than the exposure at default.

In estimating the component of the ACLL that shares common risk characteristics, loans are segregated into eight industry groups and evaluated with models specific to each industry. The models include macro-economic variables as well as loan-level variables, such as internal risk ratings. The allowance is determined by modeling an undiscounted cash flow method. Using this approach, contractual features of the loans combined with loan prepayment, loan probability of default, and loan recovery given default models are used to project future principal and interest cash flows over the life of the loan given forecasted interest rates and economic variables. For each individual loan record, the pooled allowance is then calculated as the amount of lifetime defaults less lifetime recoveries.

The Association uses three probability-weighted deterministic scenarios from Oxford Economics over a reasonable and supportable forecast period of 10 years. The economic forecasts incorporate macroeconomic variables, including Treasury rates, corporate bond spreads, as well as net farm income and agricultural commodity prices, along with other economic factors which have been shown to influence loan performance. Also considered are loan and borrower characteristics, such as internal risk ratings, vintage, size, and history of late payments, among others. Subsequent to the forecast period, the Association reverts the macro-economic variables to long-term values using a mean reversion analysis to inform the cash flows for the remaining contractual life of the loan portfolio.

In addition to the quantitative calculation, the Association considers the imprecision inherent in the process and methodology, emerging risk assessments and other subjective factors, which may lead to a qualitative adjustment to the modeled ACLL results. This component of the ACLL also considers factors for each loan pool to adjust for differences between the historical period used to calculate historical default and loss severity rates and expected conditions over the remaining lives of the loans in the portfolio related to:

- national, regional and local economic business conditions and developments that affect the collectability of the portfolio, including the condition of various markets and/or commodities;
- the quality of the loan review and process;
- the existence and effect of any concentrations of credit, including large loan concentrations, and changes in the level of such concentrations; and
- the effect of external factors such as competition and legal and regulatory requirements on the level of estimated credit losses in the existing portfolio.

Prior to January 1, 2023, the allowance for loan losses was maintained at a level considered adequate by management to provide for probable and estimable losses inherent in the loan portfolio. The allowance was based on a periodic evaluation of the loan portfolio by management in which numerous factors are considered, including economic and environmental conditions, loan portfolio composition, collateral value, portfolio quality, current production conditions, and prior loan loss experience. The allowance for loan losses encompassed various judgments, evaluations and appraisals with respect to the loans and their underlying collateral that, by their nature, contain elements of uncertainty, imprecision, and variability. Changes in the overall global economy, agricultural economy, and environment, and their impact on borrower repayment capacity would cause various judgments, evaluations and appraisals to change over time. Management considered the following macro-economic factors in determining and supporting the level of allowance for loan losses: the concentration of lending in agriculture, combined with uncertainties associated with farmland values, commodity prices, exports, government assistance programs, regional economic effects and weather-related influences.

Reserve for Unfunded Commitments

The Association evaluates the need for a reserve for credit losses on unfunded commitments under CECL and, if required, an amount is recognized and included in liabilities on the Consolidated Statements of Condition. The amount of expected losses is determined by assuming a full utilization on the commitment and then applying the same undiscounted cash flow approach used for the pooled loans. No reserve for credit losses is recorded for commitments that are unconditionally cancellable.

NOTE 2 – LOANS AND ALLOWANCE FOR LOAN LOSSES

Components of loans in the Consolidated Statements of Condition are as follows:

	June 30), 2023	December 31, 2022		
	Amount	Percentage	Amount	Percentage	
Real estate mortgage	\$9,684,255	54.8%	\$9,716,259	55.7%	
Production and intermediate-term	3,672,171	20.8%	3,654,915	21.1%	
Agribusiness	3,583,110	20.3%	3,474,462	19.9%	
Rural infrastructure	647,148	3.7%	526,095	3.0%	
Rural residential real estate	1,308	0.0%	1,492	0.0%	
Agricultural export finance	67,282	0.4%	58,585	0.3%	
Total loans	\$17,655,274	100.0%	\$17,431,808	100.0%	

PARTICIPATION INTERESTS

The Association, in the normal course of business, purchases and sells participation interests with other parties in order to diversify risk, manage loan volume, and comply with Farm Credit Administration regulations. All loans sold to other parties are sold without recourse.

The following table presents information regarding participations purchased and sold at June 30, 2023. The Association had no participations purchased from or sold to non-Farm Credit institutions at June 30, 2023.

	Other Farm Credit Institutions				
	Participations				
	Purchased Sold				
Real estate mortgage	\$686,927	\$2,262,716			
Production and intermediate-term	891,296	1,212,503			
Agribusiness	2,064,361	3,103,931			
Rural infrastructure	617,223	160,741			
Agricultural export finance	67,282				
Total	\$4,327,089 \$6,739,89				

CREDIT QUALITY

Credit risk arises from the potential inability of an obligor to meet its payment obligation and exists in our outstanding loans, letters of credit and unfunded loan commitments. The Association manages credit risk associated with its lending activities on an individual and portfolio basis through the application of sound lending and underwriting standards and policies, approved by its board of directors. The credit risk management process begins with an analysis of the borrower's credit history, repayment capacity, financial position, and collateral, which includes an analysis of credit scores for smaller loans. Repayment capacity focuses on the borrower's ability to repay the loan based on cash flows from operations or other sources of income, including off-farm income. Real estate mortgage loans must be secured by first liens on the real estate (collateral). As required by Farm Credit Administration regulations, each institution that makes loans on a secured basis must have collateral evaluation policies and procedures. Real estate mortgage loans may be made only in amounts up to 85% of the original appraised value of the property taken as security or up to 97% of the appraised value if guaranteed by a state, federal, or other governmental agency. The actual loan to appraised value when loans are made is generally lower than the statutory maximum percentage. Loans other than real estate mortgage may be made on a secured basis.

The Association uses a two-dimensional risk rating model based on an internally generated combined System risk rating guidance and actual Association loss history that incorporates a 14-point probability of default rating scale to identify and track the probability of borrower default and a separate scale addressing loss given default. Probability of default is the probability that a borrower will experience a default during the life of the loan. The loss given default is management's estimate as to the anticipated principal loss on a specific loan assuming default occurs over the next 12 months. A default is considered to have occurred if the lender believes the borrower will not be able to pay its obligation in full or the borrower or the loan is classified nonaccrual. This credit risk rating process incorporates objective and subjective criteria to identify inherent strengths, weaknesses, and risks in a particular relationship. The institution reviews, at least on an annual basis, or when a credit action is taken, the probability of default category.

Each of the probability of default categories carries a distinct percentage of default probability. The probability of default rate between one and nine of the acceptable categories is very narrow and would reflect almost no default to a minimal default percentage. The probability of default rate grows more rapidly as a loan moves from acceptable to other assets especially mentioned and grows significantly as a loan moves to a substandard (viable) level. A substandard (non-viable) rating indicates that the probability of default is almost certain. The categories are defined as follows:

- Acceptable: Assets are 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.

A loan is considered collateral dependent when the borrower is experiencing financial difficulty and repayment is expected to be provided substantially through the operation or sale of the collateral. The collateral dependent loans are primarily real estate mortgage and rural residential real estate loans. The extent to which collateral secures certain loans is primarily based on the calculated Loan-to-Value ratio.

The following table presents year-to-date gross charge-offs by year of origination as well as credit quality indicators by loan type and the related principal balance by year of origination:

	Term Loans Amortized Cost by Origination Year						Revolving Loans Amortized	Loans Term Loans	
	2023	2022	2021	2020	2019	Prior	Cost Basis	Cost Basis	Total
Real estate mortgage:									
Acceptable	\$405,460	\$1,500,191	\$1,678,051	\$1,402,396	\$912,562	\$2,659,425	\$388,623	\$76,515	\$9,023,223
OAEM	2,309	14,506	36,161	75,111	41,765	83,651	25,875	1,462	280,840
Substandard/Doubtful	10,023	85,472	28,326	36,594	73,409	122,410	8,681	15,277	380,192
Total	417,792	1,600,169	1,742,538	1,514,101	1,027,736	2,865,486	423,179	93,254	9,684,255
Production and interme	diate-term:								
Acceptable	281,837	405,931	313,704	258,717	120,218	238,508	1,696,209	5,984	3,321,108
OAEM	496	23,500	6,311	6,171	33,440	1,806	119,823	164	191,711
Substandard/Doubtful	5,381	36,120	17,697	9,282	37,532	5,163	31,429	16,748	159,352
Total	287,714	465,551	337,712	274,170	191,190	245,477	1,847,461	22,896	3,672,171
Current period									
gross charge-offs	44	2,621	158	-	8,684	46	1,322	41	12,916
Agribusiness:									
Acceptable	433,337	863,851	713,338	299,351	217,732	421,545	381,511	11,860	3,342,525
OAEM	-	19,791	9,363	3,773	19,135	26,921	18,341	-	97,324
Substandard/Doubtful	34,888	257	18,071	59,007	6,969	13,532	10,537	-	143,261
Total	468,225	883,899	740,772	362,131	243,836	461,998	410,389	11,860	3,583,110
Current period									
gross charge-offs	1,355	-	1,568	-	7	179	3,111	-	6,220
Rural infrastructure:									
Acceptable	205,531	131,908	155,563	79,859	27,556	45,822	909	-	647,148
Total	205,531	131,908	155,563	79,859	27,556	45,822	909	-	647,148
Rural residential real es	tate:								
Acceptable	-	-	227	231	-	785	-	-	1,243
Substandard/Doubtful	-	-	-	-	-	65	-	-	65
Total	-	-	227	231	-	850	-	-	1,308
Agricultural export fina	ance:								
Acceptable	-	26,589	8,733	-	-	15,003	1,465	15,497	67,282
Total	-	26,589	8,733	-	-	15,003	1,465	15,492	67,282
Total loans:									
Acceptable	1,326,165	2,928,470	2,869,616	2,040,554	1,278,068	3,381,088	2,468,717	109,851	16,402,529
OAEM	2,805	57,797	51,835	85,055	94,340	112,378	164,039	1,626	569,875
Substandard/Doubtful	50,292	121,849	64,094	104,883	117,910	141,170	50,647	32,025	682,870
Total Loans	\$1,379,262	\$3,108,116	\$2,985,545	\$2,230,492	\$1,490,318	\$3,634,636	\$2,683,403	\$143,502	\$17,655,274
Total current period									
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gross charge-offs	\$1,399	\$2,621	\$1,726	\$-	\$8,691	\$225	\$4,433	\$41	\$19,136

The following table shows loans at amortized cost under the Farm Credit Administration Uniform Loan Classification System as a percentage of total loans by loan type:

	As of June 30, 2023						
	Accepta	ble	OAEM		Substandard/Doubtful		Total
	Amount	%	Amount	%	Amount	%	Amount
Real estate mortgage	\$9,023,223	93.2%	\$280,840	2.9%	\$380,192	3.9%	\$9,684,255
Production and intermediate-term	3,321,108	90.4%	191,711	5.2%	159,352	4.3%	3,672,171
Agribusiness	3,342,525	93.3%	97,324	2.7%	143,261	4.0%	3,583,110
Rural infrastructure	647,148	100.0%	-	0.0%	-	0.0%	647,148
Rural residential real estate	1,243	95.1%	-	0.0%	65	4.9%	1,308
Agricultural export finance	67,282	100.0%		0.0%		0.0%	67,282
Total	\$16,402,529	92.9%	\$569,875	3.2%	\$682,870	3.9%	\$17,655,274

Accrued interest receivable on loans of \$198.7 million at June 30, 2023, have been excluded from the amortized cost of loans and reported separately in the Consolidated Statements of Condition. The Association wrote off accrued interest receivable of \$2.0 million for the six months ended June 30, 2023.

The following table shows loans and related accrued interest as a percentage of total loans and related accrued interest receivable by loan type prior to the adoption of CECL:

	As of December 31, 2022 ¹						
	Accepta	ıble	OAEM		Substandard/Doubtful		Total
	Amount	%	Amount	%	Amount	%	Amount
Real estate mortgage	\$9,464,574	96.2%	\$155,062	1.5%	\$222,705	2.3%	\$9,842,341
Production and intermediate-term	3,482,068	94.4%	76,477	2.1%	130,862	3.5%	3,689,407
Agribusiness	3,273,657	93.7%	69,620	2.0%	148,715	4.3%	3,491,992
Rural infrastructure	526,913	100.0%	-	0.0%	-	0.0%	526,913
Rural residential real estate	1,441	95.5%	-	0.0%	68	4.5%	1,509
Agricultural export finance	59,135	100.0%		0.0%		0.0%	59,135
Total	\$16,807,788	95.4%	\$301,159	1.7%	\$502,350	2.9%	\$17,611,297

¹ Prior to the adoption of CECL on January 1, 2023, loans were presented with accrued interest receivables

NONPERFORMING ASSETS

The following table reflects nonperforming assets on an amortized cost basis, which consist of nonaccrual loans and other property owned and related credit quality statistics:

	June 30, 2023
Nonaccrual loans:	
Real estate mortgage	\$99,508
Production and intermediate-term	81,564
Agribusiness	48,770
Rural residential real estate	65
Total nonaccrual loans	229,907
Accruing loans 90 days or more past due:	
Production and intermediate-term	31
Total accruing loans 90 days or more past due	31
Total impaired loans	229,938
Other property owned	-
Total nonperforming assets	\$229,938

Nonaccrual loans as a percentage of total loans	1.30%
Nonperforming assets as a percentage of total loans and other property owned	1.30%
Nonperforming assets as a percentage of capital	7.55%

Impaired assets (including related accrued interest) prior to the adoption of CECL are as follows:

	December 31, 2022
Nonaccrual loans:	
Real estate mortgage	\$85,239
Production and intermediate-term	34,208
Agribusiness	52,651
Rural residential real estate	68
Total nonaccrual loans	172,166
Accruing restructured loans:	
Real estate mortgage	6,199
Production and intermediate-term	14
Agribusiness	1,786
Total accruing restructured loans	7,999
Total impaired loans	180,165
Other property owned	4,160
Total impaired assets	\$184,325

The following table provides the amortized cost for nonaccrual loans with and without a related allowance for loan losses, as well as, interest income recognized on nonaccrual loans during the period:

	At June 30, 2023			Interest Income Recognized		
	Amortized Cost with Allowance	Amortized Cost without Allowance	Total	For the Three Months Ended June 30, 2023	For the Six Months Ended June 30, 2023	
Nonaccrual loans:						
Real estate mortgage	\$300	\$99,208	\$99,508	\$1,023	\$1,744	
Production and intermediate-term	3,990	77,574	81,564	99	193	
Agribusiness	12,597	36,173	48,770	-	53	
Rural residential real estate		65	65			
Total nonaccrual loans	\$16,887	\$213,020	\$229,907	\$1,122	\$1,990	

Impaired loan information prior to the adoption of CECL is as follows:

	At June 30, 2022			For the Six Months Ended June 30, 2022		
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Average Impaired Loans	Interest Income Recognized	
Impaired loans:						
with a related allowance for credit losses	\$45,707	\$46,061	\$5,441	\$5,197	\$4	
with no related allowance for credit losses	65,232	132,941		78,221	1,955	
Total	\$110,939	\$179,002	\$5,441	\$83,418	\$1,959	

DELINQUENCY

The following tables provide an age analysis of past due loans at amortized cost by portfolio segment as of:

June 30, 2023	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	Accruing Loans 90 Days or More Past Due
Real estate mortgage	\$16,144	\$12,201	\$28,345	\$9,655,910	\$9,684,255	\$-
Production and intermediate-term	6,785	19,938	26,723	3,645,448	3,672,171	31
Agribusiness	-	255	255	3,582,855	3,583,110	-
Rural infrastructure	-	-	-	647,148	647,148	-
Rural residential real estate	-	65	65	1,243	1,308	-
Agricultural export finance				67,282	67,282	
Total	\$22,929	\$32,459	\$55,388	\$17,599,886	\$17,655,274	\$31

December 31, 2022	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
Real estate mortgage	\$19,560	\$6,956	\$26,516	\$9,815,825	\$9,842,341
Production and intermediate-term	16,820	2,123	18,943	3,670,464	3,689,407
Agribusiness	1,133	-	1,133	3,490,859	3,491,992
Rural infrastructure	11,810	-	11,810	515,103	526,913
Rural residential real estate	-	-	-	1,509	1,509
Agricultural export finance				59,135	59,135
Total	\$49,323	\$9,079	\$58,402	\$17,552,895	\$17,611,297

Prior to the adoption of CECL, the aging analysis of past due loans reported included accrued interest as follows:

ALLOWANCE FOR CREDIT LOSSES

The credit risk rating methodology is a key component of the allowance for credit losses evaluation and is incorporated into loan underwriting standards and internal lending limits. In addition, borrower and commodity concentration lending and leasing limits have been established to manage credit exposure. The regulatory limit to a single borrower or lessee is 15% of the Association's lending and leasing limit base but the board of directors has established more restrictive lending limits.

Effective January 1, 2023, the Association adopted the CECL accounting guidance as described in Note 1. A summary of changes in the allowance for credit losses by portfolio segment are as follows:

	Real Estate Mortgage	Production and Intermediate- term	Agri- business	Rural Infra- structure	Agricultural Export Finance	Total
Allowance for loan losses:						
Balance at March 31, 2023	\$3,477	\$9,341	\$9,472	\$-	<u> </u> \$	\$22,290
Charge-offs	-	(6,525)	(5,567)	-	-	(12,092)
Recoveries	8	3,983	1	-	-	3,992
Provision for/(Reversal of) loan losses	883	(324)	4,840			5,399
Balance at June 30, 2023	\$4,368	\$6,475	\$8,746	\$	\$	\$19,589
Allowance for unfunded commitments:						
Balance at March 31, 2023 Provision for/(Reversal of) unfunded	\$84	\$445	\$527	\$	\$	\$1,056
commitments	40	(21)	69			88
Balance at June 30, 2023	\$124	\$424	\$596			\$1,144
Total allowance for credit losses	\$4,492	\$6,899	\$9,342	\$-	<u> </u>	\$20,733

	Real Estate Mortgage	Production and Intermediate- term	Agri- business	Rural Infra- structure	Agricultural Export Finance	Total
Allowance for loan losses:						
Balance at December 31, 2022 Cumulative effect of change in	\$11,115	\$15,672	\$22,122	\$457	\$82	\$49,448
accounting principle	(8,004)	(9,422)	(10,459)	(457)	(82)	(28,424)
Balance at January 1, 2023	3,111	6,250	11,663			21,024
Charge-offs	-	(12,916)	(6,220)	-	-	(19,136)
Recoveries	12	4,328	71	-	-	4,411
Provision for loan losses	1,245	8,813	3,232			13,290
Balance at June 30, 2023	\$4,368	\$6,475	\$8,746	\$	\$	\$19,589
Allowance for unfunded commitments:						
Balance at December 31, 2022 Cumulative effect of change in	\$200	\$2,267	\$1,375	\$52	\$6	\$3,900
accounting principle	(108)	(2,018)	(1,039)	(52)	(6)	(3,223)
Balance at January 1, 2023	92	249	336			677
Provision for unfunded commitments	32	175	260			467
Balance at June 30, 2023	\$124	\$424	\$596			\$1,144
Total allowance for credit losses	\$4,492	\$6,899	\$9,342	\$-	\$-	\$20,733

ALLOWANCE FOR LOAN LOSSES

For periods prior to January 1, 2023, the allowance for loan losses was based on probable and estimable losses inherent in the loan portfolio.

A summary of changes in the allowance for loan losses and period-end recorded investment in loans at December 31, 2022, is as follows:

	Allov	vance for Loan L	osses	Recorded Inve	estments in Loan	s Outstanding
	Balance at Dec. 31, 2022	Individually Evaluated for Impairment	Collectively Evaluated for Impairment	Balance at Dec. 31, 2022	Individually Evaluated for Impairment	Collectively Evaluated for Impairment
Real estate mortgage	\$11,115	\$45	\$11,070	\$9,842,341	\$91,438	\$9,750,903
Production and intermediate-term	15,671	2,181	13,490	3,689,407	34,222	3,655,185
Agribusiness	22,123	9,805	12,318	3,491,992	54,437	3,437,555
Rural infrastructure	457	-	457	526,913	-	526,913
Rural residential real estate	-	-	-	1,509	68	1,441
Agricultural export finance	82		82	59,135		59,135
Total	\$49,448	\$12,031	\$37,417	\$17,611,297	\$180,165	\$17,431,132

A summary of the changes in the Allowance for Loan Losses at June 30, 2022, is as follows:

	June 30, 2022
Allowance for Loan Losses	
Balance at beginning of year	\$37,515
Charge-offs	(1,707)
Recoveries	962
Reversal of loan losses	(1,233)
Balance at end of quarter	\$35,537

A summary of the changes in the Reserve for Unfunded Commitments at June 30, 2022, is as follows:

	June 30,2022
Reserve for Unfunded Commitments	
Balance at beginning of year	\$4,192
Reversal of unfunded commitments	(593)
Balance at end of quarter	\$3,599

LOAN MODIFICATIONS TO BORROWERS EXPERIENCING FINANCIAL DIFFICULTIES

Loan modifications may be granted to borrowers experiencing financial difficulty. Qualifying disclosable modifications are one or a combination of principal forgiveness, interest rate reduction, forbearance or term extension. Covenant waivers and modifications of contingent acceleration clauses are not considered term extensions. Also included in the following disclosures are other-than-insignificant payment deferrals that may provide the borrower with a temporary payment deferral, which has been defined as cumulative or individual forbearance or payment delay greater than or equal to 6 months. These deferred payments may be capitalized into the principal balance of the loan and amortized with no extension of maturity or with the deferred payment due at the time of original maturity.

The following table shows the amortized cost basis at June 30, 2023, for loan modifications granted to borrowers experiencing financial difficulty during the three months ended June 30, 2023, disaggregated by loan type and type of modification granted.

	Interest Rate Reduction			
	June 30, 2023	% of Total Loans		
Real estate mortgage	\$28,906	0.16%		
Production and intermediate-term	580	0.00%		
Total	\$29,486	0.16%		
	Term or Paym	ent Extension		
	June 30, 2023	% of Total Loans		
Paul astata martanga	\$17,442	0.10%		
Real estate mortgage Production and intermediate-term	. ,			
	2,941	0.02%		
Total	\$20,383	0.12%		

	Combination - Interest Rate Reduction and Term or Payment Extension		
	% of June 30, 2023 Lo		
Real estate mortgage	\$713	0.00%	
Production and intermediate-term	249	0.00%	
Total	\$962	0.00%	

The following table shows the amortized cost basis at June 30, 2023 for loan modifications granted to borrowers experiencing financial difficulty during the six months ended June 30, 2023, disaggregated by loan type and type of modification granted.

	Interest Rate Reduction			
	June 30, 2023	% of Total Loans		
Real estate mortgage	\$29,895	0.17%		
Production and intermediate-term	7,861	0.04%		
Total	\$37,756	0.21%		

	Term or Payment Extension			
	% of Tota			
	June 30, 2023	Loans		
Real estate mortgage	\$66,975	0.38%		
Production and intermediate-term	61,822	0.35%		
Agribusiness	28,304	0.16%		
Rural infrastructure	65	0.00%		
Total	\$157,166	0.89%		

	Combination - Interest Rate Reduction and Term or Payment Extension			
	% of TotalJune 30, 2023Loans			
Real estate mortgage	\$7,535	0.04%		
Production and intermediate-term	6,103	0.03%		
Total	\$13,638	0.07%		

Accrued interest receivable related to loan modifications granted to borrowers experiencing financial difficulty as of the three and six months ended June 30, 2023, was \$1.80 million and \$2.58 million.

The following table describes the financial effect of the modifications made to borrowers experiencing financial difficulty during the three months ended June 30, 2023:

	Interest Rate Reduction
	Financial Effect
Real estate mortgage	Reduced weighted average contractual interest rate on loans from 11.78% to 6.78%
Production and intermediate-term	Reduced weighted average contractual interest rate on loans from 14.33% to 9.33%
	Term or Payment Extension
	Financial Effect
Real estate mortgage	Increased weighted-average maturities on loans by 0.6 years
Production and intermediate-term	Increased weighted-average maturities on loans by 0.8 years
	Combination - Interest Rate Reduction and Term or Payment Extension
	Financial Effect
Real estate mortgage	Reduced weighted average contractual interest rate on loans from 13.81% to 8.81%
Production and intermediate-term	Reduced weighted average contractual interest rate on loans from 11.75% to 8% Increased weighted-average maturities on loans by 7.8 years

The following table describes the financial effect of the modifications made to borrowers experiencing financial difficulty during the six months ended June 30, 2023:

	Interest Rate Reduction
	Financial Effect
Real estate mortgage	Reduced weighted average contractual interest rate on loans from 11.88% to 6.88%
Production and intermediate-term	Reduced weighted average contractual interest rate on loans from 9.84% to 8.09%
	Term or Payment Extension
	Financial Effect
Real estate mortgage	Increased weighted-average maturities on loans by 0.6 years
Production and intermediate-term	Increased weighted-average maturities on loans by 2.1 years
	Combination - Interest Rate Reduction and Term or Payment Extension
	Financial Effect
Real estate mortgage Production and intermediate-term	Reduced weighted average contractual interest rate on loans from 11.54% to 6.54% Reduced weighted average contractual interest rate on loans from 10.16% to 8% Increased weighted-average maturities on loans by 0.8 years

The following table sets forth the amortized cost of loans to borrowers experiencing financial difficulty that received a modification during the three months ended June 30, 2023, and that defaulted in the period presented:

	Modified Loans that Subsequently Defaulted				
_	Interest Rate Reduction	Term or Payment Extension	Combination – Interest Rate & Term or Payment Extension		
Real estate mortgage	\$11,276	\$1,104	\$953		
Production and intermediate-term	-	10,978	-		
Rural residential real estate		65			
Total =	\$11,276	\$12,147	\$953		

The following table sets forth the amortized cost of loans to borrowers experiencing financial difficulty that received a modification during the six months ended June 30, 2023, and that defaulted in the period presented:

	Modified Loans that Subsequently Defaulted				
_	Interest Rate Reduction	Term or Payment Extension	Combination – Interest Rate & Term or Payment Extension		
Real estate mortgage	\$11,276	\$5,147	\$953		
Production and intermediate-term	-	12,703	-		
Rural residential real estate	-	65			
Total	\$11,276	\$17,915	\$953		

The following table sets forth an aging analysis of loans to borrowers experiencing financial difficulty that were modified on or after January 1, 2023, the date of the adoption of the guidance noted above, through June 30, 2023:

	Payment Status of Loans Modified in the Past 6 Months			
	Current	30-89 Days Past Due	90 Days or More Past Due	
Real estate mortgage	\$79,776	\$16,090	\$8,539	
Production and intermediate-term	59,920	1,679	14,187	
Agribusiness	28,304	-	-	
Rural residential real estate			65	
Total	\$168,000	\$17,769	\$22,791	

Additional commitments to lend to borrowers experiencing financial difficulty whose loans have been modified were \$10.11 million at June 30, 2023.

TROUBLED DEBT RESTRUCTURINGS

Prior to the January 1, 2023, adoption of updated FASB guidance on loan modifications, a restructuring of a loan constituted a troubled debt restructuring (TDR), also known as formally restructured, if the creditor for economic or legal reasons related to the borrower's financial difficulties granted a concession to the borrower that it would not otherwise consider. Concessions varied by program and were borrower-specific and could include interest rate reductions, term extensions, payment deferrals or the acceptance of additional collateral

in lieu of payments. In limited circumstances, principal may have been forgiven. When a restructured loan constituted a troubled debt restructuring, these loans were included within impaired loans under nonaccrual or accruing restructured loans. The following table presents additional information regarding TDRs, whether accrual or non-accrual, that occurred during the first six months of 2022.

	For the Six Months Ended June 30, 2022		
	Pre-modification Outstanding Recorded Investment*	Post-modification Outstanding Recorded Investment*	
Troubled debt restructurings:			
Production and intermediate-term	\$350	\$350	
Total	\$350	\$350	

*Pre-modification represents the recorded investment prior to restructuring and post-modification represents the recorded investment immediately following the restructuring. The recorded investment is the face amount of the receivable, increased or decreased by applicable accrued and unamortized premium, discount, finance charges, or acquisition costs, and may also reflect a previous direct write-down of the investment.

In the allowance for loan loss analysis, TDR loans are individually evaluated, and a specific allowance is established based on the likelihood the current events will result in an anticipated loss on the individual loans.

The following table provides information on outstanding principal balance of loans restructured in TDR at period end June 30, 2022. These loans are included as impaired loans in the impaired loan table at June 30, 2022:

	TDRs in Accrual Status TDR		TDRs in Nona	DRs in Nonaccrual Status		Total TDRs	
	Jun. 30, 2022	Dec. 31, 2021	Jun. 30, 2022	Dec. 31, 2021	Jun. 30, 2022	Dec. 31, 2021	
Real estate mortgage	\$10,854	\$9,539	\$482	\$2,403	\$11,336	\$11,942	
Production and intermediate-term	13	15	1,419	1,094	1,432	1,109	
Total	\$10,867	\$9,554	\$1,901	\$3,497	\$12,768	\$13,051	

At June 30, 2022, the Association had no additional commitments to lend to borrowers whose loans had been modified in TDRs.

NOTE 3 – LEASES

The balance sheet effect of operating leases for office space, and finance leases for vehicles, are included in premises and equipment and other liabilities on the balance sheet. Right-of-use assets represent the Association's right to use an underlying asset for the lease term and lease liabilities represent the Association's obligation to make lease payments arising from the lease.

Future minimum lease payments under non-cancellable leases as of June 30, 2023, were as follows:

	Operating Leases	Finance Leases	Total
2023 (excluding the six months ended $6/30/23$)	\$328	\$1,172	\$1,500
2024	633	2,056	2,689
2025	548	1,527	2,075
2026	329	110	439
2027	101	-	101
Thereafter	1,292	-	1,292
Total lease payments	3,231	4,865	8,096
Less: interest		(992)	(992)
Total	\$3,231	\$3,873	\$7,104

Right-of-use assets, net of accumulated amortization, amounted to \$6.2 million for the period ended June 30, 2023.

NOTE 4 – SHAREHOLDERS' EQUITY

The table below shows the Association's regulatory capital requirements and ratios as of June 30, 2023. The Association exceeded all regulatory minimum capital requirements as of June 30, 2023, and December 31, 2022.

	Regulatory Minimums	Capital Conservation Buffer		Jun. 30, 2023	Dec. 31, 2022
Risk-adjusted:					
Common Equity Tier 1 Capital	4.5%	2.5%	7.0%	10.58%	10.09%
Tier 1 Capital	6.0%	2.5%	8.5%	12.05%	11.58%
Total Capital	8.0%	2.5%	10.5%	13.15%	12.81%
Permanent Capital	7.0%	0.0%	7.0%	13.24%	12.82%
Non-risk-adjusted:					
Tier 1 Leverage	4.0%	1.0%	5.0%	13.81%	13.29%
URE and UREE Leverage	1.5%	0.0%	1.5%	12.07%	11.51%

On June 14, 2021, the Association issued \$300 million of Series A non-cumulative perpetual preferred stock at \$1,000 par value per share. The issuance carries an annual dividend rate of 5.25% payable quarterly until the First Reset Date of June 15, 2026, thereafter, the amount equal to the sum of the Five-Year Treasury Rate as of the most recent Reset Dividend Determination Date plus 4.50%. The issuance will be callable June 15, 2026, and quarterly thereafter.

The Series A preferred stock is junior upon liquidation or dissolution to any subordinated debt, existing and future debt obligations, and to any series of preferred stock issued in the future with priority rights. Series A preferred stock has a preference as to dividends and is senior upon liquidation or dissolution to outstanding Class C common stock, Class F participation certificates, and patronage equities.

The following tables present the activity in the accumulated other comprehensive loss, net of tax by component:

Balance at December 31, 2022	Pension and Other Benefit Plans	Accumulated Other Comprehensive Loss
Other comprehensive loss before reclassifications	\$(16,796)	\$(16,796)
Amounts reclassified from accumulated other comprehensive loss	2,755	2,755
Net current period other comprehensive income	2,755	2,755
Balance at June 30, 2023	\$(14,041)	\$(14,041)

Balance at December 31, 2021	Pension and Other Benefit Plans	Accumulated Other Comprehensive Loss
Other comprehensive loss before reclassifications	\$(19,121)	\$(19,121)
Amounts reclassified from accumulated other comprehensive loss	2,103	2,103
Net current period other comprehensive income	2,103	2,103
Balance at June 30, 2022	\$(17,018)	\$(17,018)

The following table represents reclassifications out of accumulated other comprehensive loss:

	For the Six N	Ionths Ended	Location of Gain/(Loss) Recognized in Statement of Income
	Jun. 30, 2023	Jun. 30, 2022	
Pension and other benefit plans:			
Net actuarial gain	\$2,755	\$2,103	Salaries & Benefits
Total amounts reclassified	\$2,755	\$2,103	

NOTE 5 – SUBORDINATED NOTES

In June 2021, the Association issued \$200 million of Subordinated Notes (Notes), due in 2036, which may be redeemed all or in part on any interest payment date on or after June 2031. The Notes bear a fixed interest rate of 3.375% per annum, payable semi-annually until June 15, 2031, at which point the rate changes to a floating rate equal to the benchmark rate, expected to be three-month term SOFR, plus a spread of 212 basis points through maturity date or the date of earlier redemption. The Notes are subordinate to all other creditor debt, including general creditors, and senior to all classes of stock. The Notes are not considered System debt and are not an obligation of, nor guaranteed by any System entity. Further, payments on the Notes are not insured by the FCSIC. The notes are presented net of unamortized issuance costs of approximately \$2.2 million on the Consolidated Statements of Condition at June 30, 2023.

NOTE 6 – FAIR VALUE MEASUREMENTS

Accounting standards define fair value as the exchange price that would be received for an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability. See Note 2 to the 2022 Annual Report.

Assets and liabilities measured at fair value for each of the fair value hierarchy values are summarized below:

	June 30, 2023 Fair Value Measurement Using		December 31, 2022 Fair Value Measurement Using	
	Level 1	Level 3	Level 1	Level 3
Measured at fair value on a recurring basis: Assets held in nonqualified benefits trusts	\$31,184		\$26,778	
Measured at fair value on a non-recurring	\$51,104		\$20,776	
basis:				
Loans		\$46,033		\$40,525
Other Property Owned		\$-		\$4,330

During the reporting periods presented, the Association recorded no transfers in or out of Levels 1, 2, or 3. The Association had no liabilities measured at fair value on a recurring basis for the periods presented.

FAIR VALUE OF FINANCIAL INSTRUMENTS

The following tables present the carrying amounts, estimated fair values, and the level within the fair value hierarchy of the Association's financial instruments not carried at fair value. Receivables and payables due in one year or less, equity securities without readily determinable fair values, and other financial assets or liabilities with no defined or contractual maturities are excluded. There were no significant changes in the valuation techniques during the period ending June 30, 2023.

June 30, 2023	Carrying Amount	Fair Value	Fair Value Hierarchy
Financial assets (recorded at amortized cost):			
Loans, net of allowance	\$17,635,685	\$16,746,579	Level 3
Cash	\$35,321	\$35,321	Level 1
Financial liabilities (recorded at amortized cost):			
Notes payable to CoBank	\$14,973,682	\$14,472,353	Level 3
Subordinated debt	\$197,840	\$156,750	Level 3

December 31, 2022	Carrying Amount	Fair Value	Fair Value Hierarchy
Financial assets (recorded at amortized cost):			
Loans, net of allowance	\$17,382,360	\$16,422,139	Level 3
Cash	\$58,269	\$58,269	Level 1
Financial liabilities (recorded at amortized cost):			
Notes payable to CoBank	\$14,769,000	\$14,187,817	Level 3
Subordinated debt	\$197,757	\$157,538	Level 3

VALUATION TECHNIQUES

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. The following represent a brief summary of the valuation techniques used for the Associations' assets and liabilities.

Loans: Fair value is estimated by discounting the expected future principal and interest cash flows to present value. The discount rate is a spread over an applicable yield curve, based on interest rates at which similar loans would be made to borrowers with similar credit risk regarding recent loan origination rates and management's estimates of credit risk. Management has no basis to determine whether the estimated fair values presented would be indicative of the assumptions and adjustments that a purchaser of the Association's loans would seek in an actual sale.

Fair value of loans in nonaccrual status is estimated as described above, but cash flows are principal only, meaning no interest cash flows occur, and the maturity date is adjusted to assume resolution occurs within two to three years.

For certain loans evaluated for impairment under FASB impairment guidance, the fair value is based upon the underlying collateral since the loans are collateral-dependent loans for which real estate is the collateral. The fair value measurement process uses independent appraisals and other market-based information, but in many cases, it also requires significant input based on management's knowledge of and judgment about current market conditions, specific issues relating to the collateral and other matters. As a result, a majority of these loans have fair value measurements that fall within Level 3 of the fair value hierarchy. When the value of the real estate, less estimated costs to sell, is less than the principal balance of the loan, a specific reserve is established.

Other Property Owned: Other property owned is generally classified as Level 3 of the fair value hierarchy. The process for measuring the fair value of other property owned involves the use of independent appraisals or other market-based information. Costs to sell represent transaction costs and are not included as a component of the asset's fair value.

Assets Held in Nonqualified Benefits Trusts: Assets held in trust funds related to deferred compensation and supplemental retirement plans are classified within Level 1. The trust funds include investments that are actively traded and have quoted net asset values that are observable in the marketplace.

Cash: Fair value of cash approximates amortized cost.

Notes Payable to CoBank: Fair value is estimated by discounting the future expected principal and interest cash flows to present value. The discount rate is a spread over an applicable yield curve based on current market rates of similar securities with similar maturities and characteristics. The current market rates used were obtained from the Federal Farm Credit Banks Funding Corporation.

Subordinated Debt: Fair value is estimated by discounting the future expected principal and interest cash flows to present value. This discount rate is a spread over an applicable yield curve based on expected market rates of similar securities. The expected market rates are derived from current market interest rates and the change in applicable corporate BBB finance spread obtained from an independent third party since the trade date. Management has no basis to determine whether the estimated fair value presented would be indicative of the assumptions and adjustments that a purchaser of the subordinated debt would seek in an actual sale.

NOTE 7 - SUBSEQUENT EVENTS

The Association has evaluated subsequent events through August 9, 2023, which is the date the financial statements were available to be issued.