2022 ANNUAL REPORT

AGFIRST
FARM CREDIT BANK

BUILDING BLOCKS

LEON T. AMERSON
CHIEF EXECUTIVE OFFICER

MICHAEL T. "BO" STONE
CHAIRMAN OF THE BOARD

BUILDING BLOCKS

MESSAGE FROM THE CHIEF EXECUTIVE OFFICER & THE CHAIRMAN OF THE BOARD

AgFirst Farm Credit Bank spent 2022 putting into place the building blocks that will enable our District to take advantage of tomorrow's possibilities and continue to accomplish our mission of serving rural communities and American agriculture. Through a dedicated and adaptable workforce, a strong network of highly collaborative Association partners and forward-thinking leadership, we continued laying a foundation that will enable us to nimbly respond to the ever-evolving financial services marketplace and the rapidly transforming technology landscape.

Even as our workforce navigated the challenges of a changing work environment during the waning COVID-19 pandemic, we pulled together to complete two Association mergers and strengthen our technology ecosystem in a way that will allow us to grow our offerings and sustain our District. We also continued to maintain a solid financial profile even amid rising interest rates and soaring inflation. We accomplished all of this while continuing to provide the high-quality day-to-day service that enables our Association partners to fulfill our shared mission.

In short, AgFirst in 2022 showed the resiliency, strength and stability that has enabled the success of our organization for more than a century and promises to serve us well in the decades to come.

FINANCIAL STRENGTH

The strength of our District is reflected first and foremost in the Bank's solid 2022 financial performance. The Bank experienced loan growth in excess of 10% during the year, including a 21% increase in our Capital Markets portfolio. This loan growth is the result of successful efforts to bring in new clients to AgFirst and meet the needs of our borrowers during a period of rising inflation and input costs.

The Bank successfully managed through the sharpest rise in interest rates experienced in decades and additional capital investments in our technology ecosystem to record a net income of $411 million during the year.

Patronage distributions to the Associations we serve totaled $342 million. Associations pay for the funding, technology and other services provided by AgFirst primarily through the interest rates associated with their borrowings from the Bank. Patronage refunds effectively reduced the Associations' average interest rate and costs of common technology and services by 132 basis points in 2022, resulting in an after-patronage cost of 144 basis points.

As we look toward the future, capital investments in our technology systems and dedication to prudent capital and credit risk management position AgFirst to continue meeting the needs of Associations and the agricultural community.

UNWAVERING WORKFORCE

Our success is due in large part to our dedicated workforce, who continued in 2022 to show the adaptability and commitment that enabled our District to continue performing at a high level while also keeping pace with changes in technology.

Two years after COVID-19 sent most of our workforce home to work remotely, 2022 marked the year we largely returned to the office. Because COVID forever altered the way we work, we established new rules of engagement and adjusted to a mostly hybrid work environment.

Our employees never missed a beat, continuing to perform their vital roles – from running day-to-day operations to tackling a range of projects, each designed to fit together to enable our District to continue serving those who feed, clothe and fuel the world.

A return to the office also opened the door to a return to community service and volunteering together as a company. Building up our community – whether it's through donations or by rolling up our sleeves and doing the work – is an important part of our culture at AgFirst.

While we continued to donate to many worthy causes throughout the pandemic, in-person volunteering was stymied. That changed in 2022 as employees resumed activities such as serving lunch at Transitions Homeless Center, repairing homes for those in need through Home Works and stepping up to support the United Way of the Midlands as they address some of the most pervasive societal issues.

While taking care of the community is important, our workers also adeptly took care of business, handling Association mergers and building the technology upgrades that Associations have already begun using in 2023 where possible.

POSITIONING OUR PARTNERS

The Farm Credit System has a long history of adaptability that has enabled us to respond successfully to changing business and economic climates, and that includes multiple periods of merger activity. In 2022, AgFirst completed the technical work that enabled two successful mergers within our District and began working on a third taking place in 2023.

Through these mergers, our Association partners are able to strengthen their positions within their local markets to bring the highest level of service to the farmers, ranchers and rural homeowners in their communities.

Healthy Associations reinforce our strength as a District, so we continue to offer them the most efficient, powerful solutions on the market today, tailored to meet their specialized needs. This, in turn, enables them to take advantage of economies of scale to operate with the power of a much larger institution.

POWERFUL SOLUTIONS

Keeping pace with technology has never been more important as we navigate a technological revolution that is changing the way we live, work and do business. Positioning platforms so they can work in an integrated way to ensure a timely and user-friendly experience for staff and customers is vital for any business moving forward.

AgFirst has been working diligently to ensure we are offering solutions that can grow along with advances in technology. Our goal is to ensure we are meeting and exceeding the needs of our partners today while putting the pieces into place to prepare for what tomorrow may bring.

The actions we took in 2022 are the building blocks that empower us to create the future we want as a District so we can accomplish our collective mission and reinforce our commitment to providing agriculture and rural America with the tools they need to grow and thrive.

Leon T. Amerson
Chief Executive Officer

Michael T. "Bo" Stone
Chairman of the Board

March 9, 2023

AGFIRST FARM CREDIT BANK & ASSOCIATIONS

AgFirst is a member of the Farm Credit System, the largest agricultural lending organization in the United States. As one of the four Banks in the Farm Credit System, we provide wholesale funding, as well as technology and other value-added services, to Association partners in 15 states and Puerto Rico. Our Associations, in turn, provide financing to more than 90,000 farmers, ranchers, rural homeowners and agribusinesses.

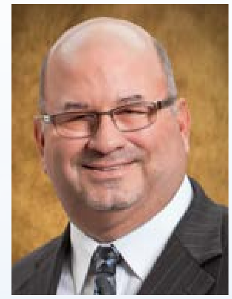
BOARD OF DIRECTORS

GARY L. BALDOSSER
AGCREDIT

JACK W. BENTLEY JR.
AGGEORGIA FARM CREDIT

JENNY R. BLACK
FARM CREDIT OF CENTRAL FLORIDA

SHERRY E. BOWDEN
OUTSIDE DIRECTOR



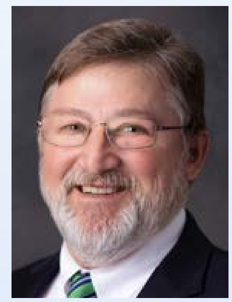
WILLIAM K. JACKSON
HORIZON FARM CREDIT

DWAIN K. LANIER
OUTSIDE DIRECTOR

FRED R. MOORE JR.
HORIZON FARM CREDIT

MICHAEL W. PATRICK
FIRST SOUTH FARM CREDIT

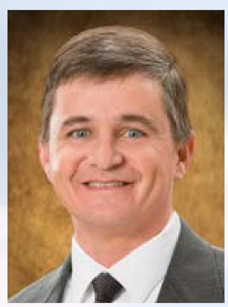
JOHN WHITWORTH "WHIT" PLAYER
ARBORONE FARM CREDIT



DAVID L. RICHESIN
RIVER VALLEY AGCREDIT

WILLIAM T. ROBINSON
AGSOUTH FARM CREDIT

ALFRED W. "AL" STEPHENS
FARM CREDIT OF THE VIRGINIAS



MICHAEL T. "BO" STONE
AGCAROLINA FARM CREDIT*

ELLIS W. TAYLOR
AGCAROLINA FARM CREDIT

*PREVIOUSLY WITH CAPE FEAR FARM CREDIT, WHICH MERGED WITH AGCAROLINA FARM CREDIT JAN. 1, 2023.

2022 ANNUAL REPORT

AGFIRST FARM CREDIT BANK

FINANCIAL STATEMENTS

AgFirst Farm Credit Bank

2022 ANNUAL REPORT

Contents

Management

Leon T. Amerson	President and Chief Executive Officer
William E. Brown	Executive Vice President and Chief Credit Officer
James A. Bumgarner	Executive Vice President and Chief Administrative Officer
Stephen F. Ciambrone	Executive Vice President and Chief Information Officer
Stephen Gilbert	Executive Vice President and Chief Financial Officer
Frances S. Griggs	Executive Vice President and General Counsel
Daniel E. LaFreniere	Executive Vice President and Chief Audit Executive
Darrick T. Paul	Executive Vice President and Chief Human Resources Officer
Juan Silvera	Executive Vice President and Chief Marketing Officer
Chad E. Toney	Executive Vice President and Chief Information Security Officer

Board of Directors

Michael T. Stone	Chairman
William T. Robinson	Vice Chairman
Gary L. Baldosser	Director
Jack W. Bentley, Jr.	Director
Jenny R. Black	Director
Sherry E. Bowden	Director
William K. Jackson	Director
Dwain K. Lanier	Director
Fred R. Moore, Jr.	Director
Michael W. Patrick	Director
John Whitworth Player	Director
David L. Richesin	Director
Alfred W. Stephens, Jr.	Director
Ellis W. Taylor	Director

Report of Management

The financial statements of AgFirst Farm Credit Bank (AgFirst) are prepared by management, which is responsible for their integrity and objectivity, including amounts that must necessarily be based on judgments and estimates. The financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America as appropriate in the circumstances. Other financial information included in the Annual Report is consistent with that in the financial statements.

To meet its responsibility for reliable financial information, management depends on accounting and internal control systems which have been designed to provide reasonable, but not absolute, assurance that assets are safeguarded and transactions are properly authorized and recorded. The systems have been designed to recognize that the cost must be related to the benefits derived. To monitor compliance, AgFirst's internal audit staff performs audits of the accounting records, reviews accounting systems and internal controls, and recommends improvements as deemed appropriate. The financial statements have been audited by PricewaterhouseCoopers LLP, independent auditors. In addition, our independent auditors have audited our internal control over financial reporting as of December 31, 2022, 2021 and 2020. AgFirst is also examined by the Farm Credit Administration (FCA).

In the opinion of management, the financial statements are true and correct and fairly state the financial position of AgFirst at December 31, 2022, 2021, and 2020. The independent auditors have direct access to the Audit Committee, which is composed solely of directors who are not officers or employees of the bank.

The undersigned certify that this Annual Report to Shareholders has been reviewed by the undersigned and has been prepared in accordance with all applicable statutory or regulatory requirements and that the information contained herein is true, accurate and complete to the best of their knowledge.

Michael T. ("Bo") Stone
Chairman of the Board

Leon T. Amerson
President and Chief Executive Officer

Stephen Gilbert
Executive Vice President and Chief Financial Officer

March 9, 2023

Five-Year Summary of Selected Financial Data

	As of or for the Year Ended December 31,				
(dollars in thousands)	**2022**	**2021**	**2020**	**2019**	**2018**
Balance Sheet Data					
Cash and cash equivalents	$ 1,096,392	$ 1,025,288	$ 1,213,685	$ 1,094,559	$ 521,485
Investments in debt securities	9,075,808	9,336,705	8,515,428	7,932,835	7,981,248
Loans	31,468,732	28,535,682	26,224,989	25,111,659	24,275,881
Allowance for loan losses	(26,070)	(20,147)	(18,257)	(18,032)	(18,049)
Net loans	31,442,662	28,515,535	26,206,732	25,093,627	24,257,832
Other property owned	—	—	—	3,041	2,842
Other assets	457,858	397,026	402,361	381,027	315,055
Total assets	$ 42,072,720	$ 39,274,554	$ 36,338,206	$ 34,505,089	$ 33,078,462
Obligations with maturities of one year or less	$ 14,640,086	$ 13,856,634	$ 15,927,888	$ 12,512,029	$ 11,764,284
Obligations with maturities of greater than one year	25,981,015	23,115,140	17,932,454	19,662,242	19,090,481
Total liabilities	40,621,101	36,971,774	33,860,342	32,174,271	30,854,765
Perpetual preferred stock	—	32,500	49,250	49,250	49,250
Capital stock and participation certificates	300,539	299,131	311,859	325,278	317,840
Additional paid-in-capital	63,668	63,673	58,883	58,883	58,883
Retained earnings					
Allocated	123,413	416	416	418	440
Unallocated	1,957,897	1,888,462	1,871,594	1,848,506	1,848,936
Accumulated other comprehensive income (loss)	(993,898)	18,598	185,862	48,483	(51,652)
Total shareholders' equity	1,451,619	2,302,780	2,477,864	2,330,818	2,223,697
Total liabilities and shareholders' equity	$ 42,072,720	$ 39,274,554	$ 36,338,206	$ 34,505,089	$ 33,078,462
Statement of Income Data					
Net interest income	$ 605,535	$ 648,398	$ 581,347	$ 407,662	$ 410,167
Provision for (reversal of) allowance for loan losses	7,704	3,552	(6,220)	(935)	3,542
Noninterest expense, net	(185,871)	(158,840)	(169,889)	(136,916)	(100,637)
Net income	$ 411,960	$ 486,006	$ 417,678	$ 271,681	$ 305,988
Key Financial Ratios					
Rate of return on average:					
Total assets	1.02 %	1.31 %	1.17 %	0.81 %	0.95 %
Total shareholders' equity	21.32 %	18.33 %	15.90 %	11.14 %	13.03 %
Net interest income as a percentage of average earning assets	1.53 %	1.78 %	1.67 %	1.23 %	1.29 %
Operating expense as a percentage of net interest income and noninterest income	35.36 %	28.22 %	27.91 %	34.36 %	30.61 %
Net (chargeoffs) recoveries to average loans	(0.01)%	(0.01)%	0.03 %	0.00 %	0.00 %
Total shareholders' equity to total assets	3.45 %	5.86 %	6.82 %	6.75 %	6.72 %
Debt to shareholders' equity (:1)	27.98	16.06	13.67	13.80	13.88
Allowance for loan losses to loans	0.08 %	0.07 %	0.07 %	0.07 %	0.07 %
Permanent capital ratio	15.34 %	18.73 %	19.39 %	19.32 %	21.67 %
Common equity tier 1 capital ratio	15.32 %	18.47 %	18.99 %	18.90 %	21.20 %
Tier 1 capital ratio	15.32 %	18.70 %	19.36 %	19.29 %	21.64 %
Total regulatory capital ratio	15.46 %	18.85 %	19.51 %	19.45 %	21.79 %
Tier 1 leverage ratio*	6.09 %	6.87 %	7.09 %	7.10 %	7.53 %
Unallocated retained earnings (URE) and URE equivalents	5.37 %	6.09 %	6.18 %	6.17 %	6.58 %
Net Income Distribution					
Cash patronage declared	$ 212,874	$ 463,555	$ 390,382	$ 266,942	$ 298,223
Distribution of nonqualified allocated retained earnings	123,000	—	—	—	—
Perpetual preferred stock dividend	271	521	963	1,798	1,622
Stock dividend patronage declared	4,519	3,991	3,468	3,112	2,635

** Tier 1 leverage ratio must include a minimum of 1.50% of URE and URE equivalents.*

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

AgFirst Farm Credit Bank (the Bank or AgFirst) is one of the banks of the Farm Credit System (the System), a federally chartered network of borrower-owned lending institutions and related service organizations. System institutions are generally organized as cooperatives. Cooperatives are organizations that are owned and controlled by their members who use the cooperatives' products or services. The U.S. Congress authorized the creation of the first System institutions in 1916. The System was created to provide support for the agricultural sector because of its significance to the well-being of the U.S. economy and the U.S. consumer. The mission of the System is to support rural communities and agriculture with reliable, consistent credit and financial services, today and tomorrow. The System does this by making appropriately structured loans to qualified individuals and businesses at competitive rates and providing financial services and advice to those persons and businesses. Consistent with the mission of supporting rural America, the System also makes rural residential real estate loans, finances rural communication, power and water infrastructures and makes loans to support agricultural exports and to finance other eligible entities.

The nation is currently served by three Farm Credit Banks (FCBs) and one Agricultural Credit Bank (ACB), each of which has specific lending authorities within its chartered territory. The ACB also has certain additional specific nationwide lending authorities. AgFirst is chartered to serve the states of Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, the Commonwealth of Puerto Rico and portions of the states of Ohio, Tennessee, Kentucky and Louisiana.

Each FCB and the ACB serves one or more of either Production Credit Associations (PCAs) that originate and service short- and intermediate-term loans, Federal Land Credit Associations (FLCAs) that originate and service long-term real estate mortgage loans, and/or Agricultural Credit Associations (ACAs) that originate and service both long-term real estate mortgage loans and short- and intermediate-term loans. PCAs, FLCAs and ACAs are collectively referred to as associations. AgFirst and its related associations (Associations or District Associations) are collectively referred to as the AgFirst District (District). The Associations are structured as cooperatives in which each Association is owned by its borrowers. AgFirst also operates as a cooperative. The District Associations, certain Other Financing Institutions (OFIs), other System institutions, and preferred stockholders jointly own AgFirst. As of December 31, 2022, the District consisted of the Bank and eighteen District Associations. See *Loan Portfolio* section for discussion on two proposed mergers expected to take place in 2023. All eighteen Associations were structured as ACA holding companies, with FLCA and PCA subsidiaries. The Bank and District Associations are regulated by the Farm Credit Administration (FCA).

The following commentary reviews the Financial Statements of condition and results of operations of AgFirst as of and for the years ended December 31, 2022, 2021, and 2020. This information should be read in conjunction with the accompanying Financial Statements, the Notes to the Financial Statements and other sections of this Annual Report. The Financial Statements were prepared under the oversight of the Audit Committee of the Bank's Board of Directors. For a list of the Audit Committee members, refer to the "Report of the Audit Committee" included in this Annual Report. See Note 1, *Organization and Operations*, in the Notes to the Financial Statements for a discussion of the operations of AgFirst.

FORWARD-LOOKING INFORMATION

Certain sections of this Annual Report contain forward-looking statements concerning financial information and statements about future economic performance and events, plans and objectives and assumptions underlying these projections and statements. These projections and statements are not based on historical facts but instead represent the Bank's current assumptions and expectations regarding the Bank's business, the economy and other future conditions. However, actual results and developments may differ materially from the Bank's expectations and predictions due to a number of risks and uncertainties, many of which are beyond the Bank's control.

These risks and uncertainties include, but are not limited to:

- political (including trade policies), legal, regulatory, financial markets, and economic conditions and developments in the United States (U.S.) and abroad including wars and regional conflicts, the elevated level of inflation, supply chain disruptions, and potential changes to global trade patterns and agreements;
- economic fluctuations in the agricultural, rural infrastructure, international, and farm-related business sectors, as well as in the general economy that can affect the availability of off-farm sources of income;
- weather-related events, food safety, disease, and other adverse climatic or biological conditions that periodically occur that impact agricultural productivity and income of District borrowers;
- climate change and/or measures to address climate change
- volatile prices of agricultural commodities;
- changes in production expenses, particularly feed, fuel, and fertilizer;
- changes in demand or supply of U.S. agricultural products in a global marketplace;
- changes in farmland and rural real estate values;
- availability of agricultural workers and changes in labor costs;
- uncertainties and risks associated with any ongoing impact of the COVID-19 pandemic, including its impact on the business, results of operations and financial condition;
- disruption of operations or disclosure of confidential information as a result of cybersecurity incidents;
- changes in U.S. government support of the agricultural industry and the System as a government-sponsored enterprise (GSE), as well as investor and rating agency reactions to events involving the U.S. government, other GSEs and other financial institutions;
- actions taken by the Federal Reserve System in implementing monetary and fiscal policy, as well as other policies and actions of the federal government that impact the financial services industry and the debt markets;

- credit, interest rate, prepayment, and liquidity risk inherent in lending activities;
- the replacement of LIBOR and the implementation of Secured Overnight Financing Rate (SOFR) and a changing interest rate environment; and,
- changes in the Bank's assumptions for determining the allowance for loan losses, other-than-temporary impairment and fair value measurements.

Forward-looking statements can be identified by words such as "anticipates," "believes," "could," "estimates," "may," "should," "will," or other variations of these terms that are intended to reference future periods.

AGRICULTURAL OUTLOOK

Production agriculture is a cyclical business that is heavily influenced by commodity prices, weather, government policies (including, among other things, tax, trade, immigration, crop insurance and periodic aid), interest rates, input costs and various other factors that affect supply and demand.

The following United States Department of Agriculture (USDA) analysis provides a general understanding of the U.S. agricultural economic outlook. However, this outlook does not take into account all aspects of AgFirst's business or events that occur subsequent to its issuance. References to USDA information in this section refer to the U.S. agricultural market data and are not limited to information/data in the AgFirst District.

The USDA's February 2023 forecast estimates net farm income (income after expenses from production in the current year) for 2022 at $162.7 billion, a $21.8 billion increase from 2021 and $70.0 billion above the 10-year average. The forecasted increase in net farm income for 2022, compared with 2021, is primarily due to increases in cash receipts for animals and animal products of $61.9 billion and crop receipts of $44.7 billion, partially offset by a decrease of $10.3 billion to $15.6 billion in direct government payments and an increase in cash expenses of $65.7 billion. If realized, 2022 net farm income (in real dollars of $167.3 billion) would be the highest level since 1973 when net farm income was $172.9 billion adjusted for real dollars.

The USDA's outlook projects net farm income for 2023 at $136.9 billion, a $25.8 billion or 15.9 percent decrease from 2022, but $44.2 billion above the 10-year average. The forecasted decrease in net farm income for 2023 is primarily due to an expected decrease in cash receipts for animals and animal products of $14.7 billion, crop receipts of $8.8 billion and direct government payments of $5.4 billion, as well as an increase in cash expenses of $13.7 billion. The decreases in cash receipts for animals and animal products are predicted for milk, hogs, broilers and eggs, while cattle receipts are forecast to increase. The expected decline in cash receipts for crops is primarily driven by decreases in corn, soybeans, vegetables and melon receipts, while receipts for wheat are expected to increase. Most production expenses are expected to remain elevated, while feed expenses are projected to decline in 2023 after rising significantly in 2022. Fertilizer-lime-soil conditioner expenses are expected to have peaked in 2022 but remain high in 2023. In addition, interest and labor are forecasted to increase, while fuel and oil expenses are projected to decline.

Working capital (which is defined as cash and cash convertible assets minus liabilities due to creditors within 12 months) is forecasted to increase 5.4 percent in 2022 to $133.4 billion from $126.5 billion in 2021. Although working capital increased, it remains well below the peak of $165 billion in 2012.

The value of farm real estate accounted for 84 percent of the total value of the U.S. farm sector assets for 2022 according to the USDA in its February 2023 forecast. Because real estate is such a significant component of the balance sheet of U.S. farms, the value of farm real estate is a critical measure of the farm sector's financial performance. Changes in farmland values also affect the financial well-being of agricultural producers because farm real estate serves as the principal source of collateral for farm loans.

USDA's forecast projects (in nominal dollars) that farm sector equity, the difference between farm sector assets and debt, will rise 10.6 percent in 2022. Farm real estate value is expected to increase 10.1 percent and non-real estate farm assets are expected to increase 9.7 percent, while farm sector debt is forecast to increase 6.3 percent in 2022. Farm real estate debt as a share of total debt has been rising since 2014 and is expected to account for 69.3 percent of total farm debt in 2022.

The USDA is forecasting farm sector solvency ratios to improve in 2022 to 15.1 percent for the debt-to-equity ratio and 13.1 percent for the debt-to-asset ratio, which are well below the peak of 28.5 percent and 22.2 percent in 1985.

Expected agricultural commodity prices can influence production decisions of farmers and ranchers on planted/harvested acreage of crops or inventory of livestock and thus affect the supply of agricultural commodities. Actual production levels are sensitive to weather conditions that may impact production yields. Livestock and dairy profitability are influenced by crop prices as feed is a significant input to animal agriculture.

Global economic conditions, government actions (including tariffs, war, and response to disease) and weather volatility in key agricultural production regions can influence export and import flows of agricultural products between countries. U.S. exports and imports may periodically shift to reflect short-term disturbances to trade patterns and long-term trends in world population demographics. Also impacting U.S. agricultural trade are global agricultural and commodity supplies and prices, changes in the value of the U.S. dollar and the government support for agriculture.

The following table sets forth the commodity prices per bushel for crops, by hundredweight for hogs, milk, and beef cattle, and by pound for broilers and turkeys from December 31, 2019 to December 31, 2022:

Commodity	12/31/22	12/31/21	12/31/20	12/31/19
Hogs	$62.50	$56.50	$49.10	$47.30
Milk	$24.70	$21.70	$18.30	$20.70
Broilers	$0.71	$0.74	$0.44	$0.45
Turkeys	$1.20	$0.84	$0.72	$0.62
Corn	$6.58	$5.47	$3.97	$3.71
Soybeans	$14.40	$12.50	$10.60	$8.70
Wheat	$8.98	$8.59	$5.46	$4.64
Beef Cattle	$154.00	$137.00	$108.00	$118.00

Geographic and commodity diversification across the District coupled with existing government safety net programs, ad hoc support programs and additional government disaster aid payment for many borrowers help to mitigate the impact of challenging agricultural conditions. The District's financial performance and credit quality are expected to remain sound overall due to strong capital levels and favorable credit quality position at the end of 2022. Additionally, while the District benefits overall from diversification, individual District entities may have higher geographic, commodity, and borrower concentrations which may accentuate the negative impact on those entities' financial performance and credit quality. Non-farm income support for many borrowers also helps to mitigate the impact of periods of less favorable agricultural conditions. However, agricultural borrowers who are more reliant on non-farm income sources may be more adversely impacted by a weakened general economy.

CRITICAL ACCOUNTING POLICIES

The Bank's financial statements are reported in conformity with accounting principles generally accepted in the United States of America. Consideration of AgFirst's significant accounting policies is critical to the understanding of the Bank's results of operations and financial position because some accounting policies require complex or subjective judgments and estimates that may affect the reported amount of certain assets or liabilities as well as the recognition of certain income and expense items. In many instances, management has to make judgments about matters that are inherently uncertain. For a complete discussion of the Bank's significant accounting policies, see Note 2, *Summary of Significant Accounting Policies*, in the Notes to the Financial Statements. The following is a summary of the Bank's most critical accounting policies:

- *Allowance for loan losses* — The allowance for loan losses is management's best estimate of the amount of probable losses inherent in the Bank's loan portfolio as of the report date. The allowance for loan losses is increased through provisions for loan losses and loan recoveries and is decreased through loan charge-offs and allowance reversals.

  Significant individual loans are evaluated based on the borrower's overall financial condition, resources, and payment record, the prospects for support from any financially responsible guarantor, and, if appropriate, the estimated net realizable value of any collateral. The allowance for loan losses attributable to these loans is established by a process that estimates the probable loss inherent in the loans, taking into account various historical and current factors, internal risk ratings, regulatory oversight, and geographic, industry, and other factors.

  In addition to the allowance for loan losses attributable to specific loans, the Bank may also establish a general allowance for loan losses based on management's assessment of risk inherent in the loans in the Bank's portfolio that were not specifically evaluated. In establishing general reserves, factors affecting certain commodity types or industries may be taken into consideration, as well as other factors previously discussed. Certain loan pools purchased from Associations are analyzed in accordance with the selling Associations' allowance methodologies for assigning general and specific allowances. Allowances are established on these pools based on that analysis after Bank management's determination that the methodologies employed are reasonable.

  The Bank has established a reserve for unfunded commitments that provides for potential losses related to unfunded commitments and is maintained at a level that is considered the best estimate of the amount required to absorb probable losses related to these unfunded commitments. The reserve is determined using a similar methodology as used for the allowance for loan losses taking into account the probability of funding the commitment. The reserve for unfunded commitments is recorded as a liability in the Financial Statements.

  Assessing the appropriateness of the allowance for loan losses and reserve for unfunded commitments is a dynamic process. Changes in the factors considered by management in the evaluation of losses in the loan portfolios could result in a change in the level of the allowance for loan losses and have a direct impact on the provision for loan losses and the results of operations.

  The overall adequacy of the allowance for loan losses is validated further through periodic evaluations of the loan portfolio, which generally consider historical charge-off experiences adjusted for relevant factors. These factors include types of loans, credit quality, specific industry conditions, collateral value, general economic and political conditions, and changes in the character, composition, and performance of the portfolio, among other factors.

  On January 1, 2023, the Bank adopted Accounting Standard Update (ASU) 2016-13, which amends the guidance of estimating losses on financial assets. See further discussion of the ASU, and the impact it has on the Bank's financial statements in the *Recently Issued Accounting Pronouncements* section and Note 2, *Summary of Significant Accounting Policies.*

- *Valuation methodologies* — Management applies various valuation methodologies to assets and liabilities that often involve a significant degree of judgment, particularly when active markets do not exist for the particular items being valued. Quoted market prices are referred to when estimating fair values for certain assets for which an observable active market exists. Management utilizes third-party valuation services to obtain fair value prices for the majority of the Bank's investment securities. Management also utilizes significant estimates and assumptions to value items for which an observable active market does not exist. Examples of these items include: impaired loans, other property owned, pension obligations, certain derivatives, certain investment securities and other financial instruments. These valuations require the use of various assumptions, including, among others, discount rates, rates of return on assets, repayment rates, cash flows, default rates, costs of servicing, and liquidation values. The use of different assumptions could produce significantly different asset or liability values, which could have material positive or negative effects on the Bank's results of operations.

LOAN PORTFOLIO

The Bank's loan portfolio consists primarily of direct loans to District Associations (Direct Notes), Capital Markets, Correspondent Lending loans (primarily first lien rural residential mortgages), and loans to OFIs as shown below at December 31:

AgFirst Loan Portfolio

(dollars in thousands)	2022		2021		2020	
Direct Notes*	$ 21,217,281	67.42 %	$ 19,739,633	69.18 %	$ 17,945,905	68.43 %
Capital Markets, net*	6,927,516	22.01	5,724,229	20.06	5,094,229	19.43
Correspondent Lending	3,157,675	10.04	2,912,759	10.20	3,047,757	11.62
Loans to OFIs	166,260	0.53	159,061	0.56	137,098	0.52
Total	$ 31,468,732	100.00 %	$ 28,535,682	100.00 %	$ 26,224,989	100.00 %

**Net of participations sold*

The diversification of the Bank's loan volume by type for each of the past three years at December 31 is shown below:

(dollars in thousands)	2022		2021		2020	
Direct Notes	$ 21,217,281	67.42 %	$ 19,739,633	69.18 %	$ 17,945,905	68.43 %
Rural residential real estate	3,044,026	9.67	2,784,761	9.76	2,899,911	11.06
Processing and marketing	1,932,474	6.14	1,680,782	5.89	1,229,744	4.69
Production and intermediate-term	1,245,308	3.96	1,032,288	3.62	1,163,424	4.44
Power and water/waste disposal	1,208,373	3.84	748,563	2.62	569,315	2.17
Real estate mortgage	1,163,090	3.70	1,153,729	4.04	1,116,668	4.26
Communication	680,224	2.16	545,699	1.91	462,287	1.76
Loans to cooperatives	574,334	1.82	527,118	1.84	561,335	2.14
Loans to OFIs	166,260	0.53	159,061	0.56	137,098	0.52
Farm-related business	127,789	0.41	79,888	0.28	46,732	0.18
International	104,238	0.33	76,739	0.27	84,948	0.32
Other	5,335	0.02	7,421	0.03	7,622	0.03
Total loans	$ 31,468,732	100.00 %	$ 28,535,682	100.00 %	$ 26,224,989	100.00 %

Total loans outstanding were $31.469 billion at December 31, 2022. Compared to the prior year, total loans outstanding increased $2.933 billion, or 10.28 percent. Loans outstanding at the end of 2021 increased $2.311 billion, or 8.81 percent, compared to December 31, 2020.

As noted in the table above, a significant portion of the Bank's loan portfolio is comprised of Direct Notes to District Associations. Since Direct Notes fund District Associations' lending activities, increases and decreases in the Direct Note portfolio are closely linked to the commodities and geographic distribution of the District Associations' loan portfolios.

In 2022, loan growth for the combined District portfolio was primarily in the utilities, processing, forestry, rural home loans, and grains segments. In 2021, loan growth was primarily in the forestry, field crops, processing, cattle, and grains segments. See *Direct Notes* and *Capital Markets* sections below for further discussion of loan growth.

Each loan in the Bank's portfolio is classified according to a Uniform Classification System, which is used by all System institutions. Below are the classification definitions:

- *Acceptable* – Assets are expected to be fully collectible and represent the highest quality. In addition, these assets may include loans with properly executed and structured guarantees that might otherwise be classified less favorably.
- *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 facts, conditions, and values that make collection in full highly questionable.
- *Loss* – Assets are considered uncollectible.

The following table presents selected statistics related to the credit quality of AgFirst loans, including accrued interest, at December 31:

AgFirst Total Loans Credit Quality	2022	2021	2020
Acceptable	99.52 %	99.45 %	94.00 %
OAEM	0.18	0.34 %	5.85 %
Substandard/doubtful/loss	0.30	0.21 %	0.15 %
Total	100.00 %	100.00 %	100.00 %

The table above reflects stable credit quality during 2022 and 2021. Bank credit quality may be impacted in 2023 in response to potential changes in government support for agricultural sectors, inflationary input cost pressures, rising interest rates, and unforeseen impacts from geopolitical, trade, supply chain, weather, or animal- or human-related health events. See the *Direct Notes, Capital Markets, and Correspondent Lending* sections, below, for further discussion of the Bank's loan portfolio and credit quality.

Direct Notes

AgFirst's primary business is to provide funding, operational support, and technology services to District Associations. AgFirst provides a revolving line of credit, referred to as a Direct Note, to each of the District Associations. Each of the Associations funds its lending and general corporate activities primarily by borrowing under its Direct Note. Lending terms are specified in a separate General Financing Agreement (GFA) between AgFirst and each Association. Each GFA contains minimum borrowing base margin, capital, and earnings requirements that must be maintained by the Association. Refer to Note 1, *Organization and Operations*, in the Notes to the Financial Statements for further discussion.

Following approval by AgFirst, the FCA, and shareholders, effective July 1, 2022, MidAtlantic Farm Credit, ACA and AgChoice Farm Credit, ACA merged to form Horizon Farm Credit, ACA. Combined total assets for these two Associations approximate $6.2 billion, or 21.6 percent of the combined Association total assets, as of December 31, 2022.

Following approval by AgFirst, the FCA, and shareholders, effective January 1, 2023, Cape Fear Farm Credit, ACA merged with and into AgCarolina Farm Credit, ACA. Combined total assets for these two Associations approximate $2.6 billion, or 9.1 percent of the combined Association total assets, as of December 31, 2022.

On May 24, 2022, the boards of AgSouth Farm Credit, ACA and Carolina Farm Credit, ACA signed a letter of intent to pursue a merger. The Associations, with combined total assets of approximately $4.1 billion, or 14.3 percent of the combined Association total assets, as of December 31, 2022, anticipate a merger date of April 1, 2023, subject to receiving all regulatory and shareholder approvals required.

At December 31, 2022, total Direct Note volume outstanding was $21.217 billion, an increase of $1.478 billion, or 7.49 percent, compared to December 31, 2021. Direct Note volume of $19.740 billion at December 31, 2021, increased $1.794 billion, or 10.00 percent, compared to December 31, 2020. The Bank may sell participation interests in certain of its Direct Notes to other System banks. At December 31, 2022, 2021, and 2020 Direct Note volume totaling $1.330 billion, $1.207 billion, and $1.141 billion, respectively, had been sold to another System bank.

As noted above, increases and decreases in the Direct Note portfolio are closely linked to the commodities and geographic distribution of the District Associations' loan portfolios. In 2022, loan growth was primarily in the forestry and processing segments. The growth within the forestry commodity was driven by continued strong demand in end-use markets, large timberland investment markets, and retail consumer demand for land. The growth within the processing commodity was due to an increase in debt needs largely attributable to inflation of commodities and other inputs, capital expenditures, and liquidity needs. In 2021, loan growth was primarily in the forestry, field crops, and grains segments. Forestry saw strong growth, driven by a favorable interest rate market and capital expansion, to support strong demand in end-use markets as well as increased retail consumer demand for land. Prices for field crops and grains and their inputs, including seed, fertilizers and chemicals, increased significantly in 2021. This increase in input costs amplified funding demands by farmers and grain elevator operators.

AgFirst provides each Association with core operating systems and support, including a loan origination system, loan accounting and servicing systems, general ledger and related financial accounting systems, and a human resources/payroll system. With AgFirst providing such systems and other services, the Associations are able to achieve operating efficiencies ordinarily afforded to much larger organizations. In addition, having common systems supported by AgFirst provides an opportunity to automate and standardize portions of the AgFirst/Association lending process. One of the most significant advantages of this is a match-funding mechanism that automatically creates Direct Note advances that match the repricing and maturity characteristics of each underlying Association loan. The Associations' interest rate risk and systems operational risks are primarily transferred to the Bank by employing these systems.

Ultimately, the Associations' ability to repay their Direct Note obligations is significantly dependent upon the repayment of loans made to their borrowers. Accordingly, AgFirst's direct and indirect credit exposure depends upon the creditworthiness of both the Associations that are direct borrowers and the underlying borrowers of the Associations whose loans, as well as the other assets of the Associations, secure their Direct Notes.

AgFirst continually monitors the risk-bearing capacity of each Association through a variety of mechanisms, including testing of the reliability of the Association's risk ratings assigned to each of its loans, periodic meetings with the Association's management and board of directors, regular formalized risk assessments, and prior approval of loan transactions that exceed the Association's delegated lending authority as determined by AgFirst.

All Associations are subject to an annual audit by an independent registered public accounting firm and periodic examination by the FCA. Each Association is required by regulatory mandate to perform continuous internal credit, appraisal, and audit reviews. The GFA has provisions to ensure Associations adhere to safe and sound business practices, generally accepted accounting principles, and regulatory and Bank-administered requirements.

Litigation in which Associations are involved is typically loan related and currently poses no material threat to their viability.

All Associations met all of the regulatory minimum capital requirements, and were considered well-capitalized at December 31, 2022. See *Regulatory Ratios* in the *Capital* section below for a discussion of the calculation of these ratios.

The following table presents the credit quality of the Bank's Direct Note portfolio including accrued interest at December 31:

Direct Note Credit Quality

	2022		2021		2020	
	% Total	# Total	% Total	# Total	% Total	# Total
Acceptable	100.00%	18	100.00%	19	92.09%	18
OAEM	—	—	—	—	7.91	1
Substandard/doubtful/loss	—	—	—	—	—	—
Total	100.00%	18	100.00%	19	100.00%	19

As outlined above, effective July 1, 2022, MidAtlantic Farm Credit, ACA and AgChoice Farm Credit, ACA merged to form Horizon Farm Credit, ACA, which reduced the number of District Associations to eighteen.

At December 31, 2022, no District Associations were operating under a written agreement with the FCA. Effective February 17, 2023, one Association with total assets of $185.9 million was operating under a special credit agreement with the Bank pursuant to the GFA. The GFA events of default are not expected to have a significant adverse impact on the Bank's or District's financial condition or results of operations. This Direct Note was subsequently downgraded to OAEM as a result of the events of default.

Presently, collection of the full Direct Note amount due is expected from all Associations in accordance with the contractual terms of the debt arrangements, and no allowance has been recorded for Direct Notes. Virtually all assets of the various Associations are pledged as collateral for their respective Direct Notes. In the opinion of management, all Association Direct Notes are adequately collateralized. The risk funds of an Association, including both capital and the allowance for loan losses, also protect the interest of the Bank should a Direct Note default.

Associations employ a number of risk management techniques to limit credit exposures. Each Association has adopted underwriting standards, individual borrower exposure limits, commodity exposure limits, and other risk management techniques. AgFirst and the Associations actively purchase and sell loan participations to enhance the diversification of their portfolios. Some Associations utilize guarantees from U.S. government agencies/departments, including the Farm Service Agency, the Small Business Administration, and the Federal Agricultural Mortgage Corporation (Farmer Mac), as well as state government guarantees to further limit credit exposures. At December 31, 2022, Associations collectively had $2.022 billion (7.25 percent of the total Associations' loan portfolios) under such government or GSE guarantees, compared to $1.952 billion (7.48 percent) and $1.837 billion (7.68 percent), at December 31, 2021 and 2020, respectively.

The following table presents the credit quality classification of the combined Associations' loans, including accrued interest, at December 31 as follows:

District Associations Credit Quality	2022	2021	2020
Acceptable	97.00 %	95.94 %	94.32 %
OAEM	1.68	2.22	3.10
Substandard/doubtful/loss	1.32	1.84	2.58
Total	100.00 %	100.00 %	100.00 %

Total Association loan delinquencies (loans 90 days or more past due) were 0.25 percent of the combined Association total loan assets at year-end 2022, compared to 0.27 percent and 0.43 percent at December 31, 2021 and 2020, respectively.

At December 31, 2022, nonperforming assets for the combined Associations represented 0.90 percent of total loans and other property owned, or $251.7 million, compared to 1.07 percent, or $278.5 million, for 2021, and 1.42 percent, or $339.4 million for 2020. Nonperforming assets consist of nonaccrual loans, accruing restructured loans, accruing loans 90 days or more past due and other property owned.

Affiliated Associations serve primarily all or a portion of fifteen states and Puerto Rico. The District's large footprint results in geographic diversity, which is a natural credit risk-reducing factor for AgFirst. The following table illustrates the geographic distribution of the Associations' loan volume outstanding by state for the past three years at December 31:

District Associations

	Percent of Portfolio*		
State	**2022**	**2021**	**2020**
North Carolina	15 %	16 %	16 %
Georgia	11	11	11
Pennsylvania	11	11	10
Virginia	9	9	10
Ohio	9	9	8
Florida	9	8	8
Maryland	6	6	6
Alabama	6	6	6
South Carolina	5	6	6
Kentucky	3	4	4
Mississippi	2	3	3
Louisiana	2	2	2
Delaware	2	2	2
All Other States	10	7	8
Total	100 %	100 %	100 %

**The distribution is based on the state in which the borrower is headquartered and may not be representative of their operations and business activities.*

Only three states have loan volume representing 10.00 percent or greater of the total at December 31, 2022. Commodity diversification, guarantees, and borrowers with significant reliance on non-farm income further mitigate the geographic concentration risk in these states.

The Associations' credit portfolios are comprised of a number of commodity segments having varying, and in some cases complementary, characteristics which helps mitigate credit risk. Commodity and industry categories are based on the Standard Industrial Classification system published by the federal government.

The following table illustrates the aggregate credit portfolio of the Associations by major commodity segments based on borrower eligibility at December 31:

District Associations

	Percent of Portfolio		
Commodity Group - Eligibility	**2022**	**2021**	**2020**
Forestry	16 %	16 %	15 %
Poultry	12	13	14
Field Crops	12	12	12
Cattle	9	9	9
Grains	8	8	8
Corn	6	6	6
Other Real Estate	5	5	5
Dairy	4	5	5
Processing	3	2	2
Tree Fruits and Nuts	3	3	3
Nursery/Greenhouse	3	3	3
Rural Home Loans	3	3	3
Cotton	3	3	3
Swine	2	2	3
Utilities	2	1	1
Other	9	9	8
Total	100 %	100 %	100 %

As illustrated in the above chart, Associations had concentrations of 10.00 percent or greater in only three commodities: forestry, poultry, and field crops. All three commodities have geographic dispersion over the entire AgFirst District footprint. Also, many of these borrowers have significant secondary income from other sources.

Forestry is divided principally into hardwood and softwood production and value-added processing. The timber from hardwood production is further processed into furniture, flooring, and high-grade paper and is generally located at the more northern latitudes and higher elevations of the AgFirst District. Softwood timber production is typically located in the coastal plains of the AgFirst District footprint and is used for building materials for the housing market and pulp to make paper and hygiene products. Timber producers at the Associations range in size from less than fifty acres to thousands of acres, with value-added processing being conducted at sawmills, planer mills, and paper mills.

Poultry concentrations within the Associations are dispersed among a large number of farm units producing poultry. Poultry concentration is further dispersed as production is segregated among chicken, turkey, and egg production.

The field crops commodity group represents a diverse group of commodities, including melons, vegetables, and other non-grain crops, such as peanuts, which are grown throughout the AgFirst District.

The diversity of income sources supporting Association loan repayments, including a prevalence of non-farm income among the borrowers, further mitigates credit risk to AgFirst. The following table illustrates the aggregate credit portfolio of the Associations by major segments based upon primary source of repayment as of December 31 of each year:

District Associations

	Percent of Portfolio		
Commodity Group - Repayment Dependency	**2022**	**2021**	**2020**
Non-Farm Income	35 %	35 %	33 %
Poultry	12	13	14
Grains	6	6	6
Field Crops	6	6	6
Forestry	5	5	6
Corn	5	5	5
Dairy	4	4	5
Cattle	3	4	4
Processing	3	2	2
Nursery/Greenhouse	3	2	2
Cotton	2	3	3
Tree Fruits and Nuts	2	3	2
Other Real Estate	2	2	2
Swine	2	2	2
Utilities	2	1	1
Other	8	7	7
Total	100 %	100 %	100 %

As mentioned previously, loans exceeding an Association's delegated lending authority must be pre-approved by AgFirst. As a result, larger agribusiness loans are typically analyzed by AgFirst's commercial lending staff as well as the Association's own lending staff prior to an Association committing to such loans.

Exposure to losses is reduced further through collateralization and other credit enhancements, including federal government guarantees. Typically, multiple loans to the same borrower are cross-collateralized and cross-defaulted.

By law, all long-term loans authorized by Title 1 of the Farm Credit Act of 1971, as amended (the Farm Credit Act), must be secured by a first lien on real estate with an initial loan to appraised value not exceeding 85.00 percent. As of December 31, 2022, long-term loans represent 65.99 percent of District Association loans.

Capital Markets

AgFirst has a Capital Markets Unit that purchases and sells loan participations and syndications. The Bank's credit officers work with the Associations to originate loans within the District's territory, provide commercial loan expertise to augment the Associations' staff, as needed, and provide an outlet for loans that exceed Associations' various hold limits. Additionally, the Capital Markets Unit actively pursues 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 AgFirst or sub-participated to the Associations. The Capital Markets Unit also sells participations outside of the District to manage AgFirst's and the District Associations' loan concentrations and hold positions.

AgFirst's net Capital Markets volume outstanding increased by 21.02 percent from December 31, 2021 to December 31, 2022 and increased by 12.37 percent from December 31, 2020 to December 31, 2021. The increase in Capital Markets volume in 2022 was primarily due to growth in the utilities (37.24

percent of total Capital Markets growth), and processing (22.81 percent) segments. The increase in 2022 was primarily due to a combination of factors including new client acquisition, an increase in transactions due to government initiatives to expand rural infrastructure, expansion activities within the protein complex, borrower liquidity needs due to commodity price escalation, and merger and acquisition activity. The increase in 2021 was primarily due to a combination of factors including new client acquisition, customers restructuring their balance sheets to take advantage of the rate environment in 2021, liquidity needs due to commodity price escalation, and merger and acquisition activity.

The following table shows total Capital Markets portfolio credit exposures at December 31 of each year:

	Capital Markets		
(dollars in thousands)	**2022**	**2021**	**2020**
Capital Markets, Purchased	$ 10,684,682	$ 8,061,843	$ 7,403,206
Less: Capital Markets, Sold	3,757,166	2,337,614	2,308,977
Net Outstanding	6,927,516	5,724,229	5,094,229
Available Unused Commitments	3,861,293	3,643,035	3,137,084
Letters of Credit and Guarantees	84,297	63,983	66,340
Total Exposure	$ 10,873,106	$ 9,431,247	$ 8,297,653

Like the Associations, AgFirst employs a number of management techniques to limit credit risk, including underwriting standards, limits on the amounts of loans purchased from a single originator, and maximum hold positions to a single borrower and commodity. Although the Capital Markets portfolio is comprised of a relatively small number of large loans, it is diversified both geographically and on a commodity basis. Management makes adjustments to credit policy and underwriting standards when appropriate as a part of the ongoing risk management process.

The following table illustrates AgFirst's Capital Markets portfolio by geographic distribution at December 31:

	Capital Markets *					
(dollars in thousands)	**2022**		**2021**		**2020**	
Georgia	$ 710,269	10 %	$ 714,620	12 %	$ 640,173	13 %
Florida	670,635	10	420,252	7	447,731	9
Texas	562,735	8	383,171	7	310,466	6
North Carolina	429,852	6	450,310	8	468,900	9
New York	398,731	6	289,383	5	215,543	4
California	321,382	5	312,825	5	250,273	5
Illinois	306,372	4	190,753	3	124,708	2
Ohio	301,790	4	295,042	5	198,536	4
Pennsylvania	241,075	3	208,413	4	98,530	2
Minnesota	213,392	3	186,795	3	184,341	4
Colorado	159,672	2	108,025	2	96,662	2
Louisiana	158,699	2	165,147	3	163,839	3
Kansas	154,155	2	139,523	2	127,913	3
Washington	151,152	2	92,400	2	116,122	2
Indiana	144,084	2	119,056	2	56,426	1
Missouri	143,292	2	118,625	2	127,589	3
Nebraska	135,234	2	77,398	1	74,481	1
Connecticut	126,590	2	110,200	2	111,201	2
Kentucky	115,031	2	121,705	2	113,377	2
Other	1,483,374	23	1,220,586	23	1,167,418	23
	$ 6,927,516	100 %	$ 5,724,229	100 %	$ 5,094,229	100 %

* *The distribution is based on the state in which the borrower is headquartered and may not be representative of their operations and business activities.*

The following Capital Markets table shows the various major commodity groups in the portfolio based on borrower eligibility and their percentage of the outstanding portfolio volume at December 31:

Capital Markets Commodity Group - Eligibility	Percent of Portfolio 2022	2021	2020
Utilities	23 %	20 %	19 %
Processing	21	21	19
Forestry	16	18	18
Field Crops	6	7	7
Tree Fruits and Nuts	5	5	5
Swine	3	4	4
Nursery/Greenhouse	3	3	3
Grains	3	3	3
Dairy	3	3	3
Cattle	3	3	3
Tobacco	2	2	2
Other	12	11	14
Total	100 %	100 %	100 %

The following table segregates these loans based upon repayment dependency by commodity at December 31:

Capital Markets Commodity Group - Repayment Dependency	Percent of Portfolio 2022	2021	2020
Utilities	23 %	19 %	19 %
Processing	21	21	19
Forestry	14	16	16
Field Crops	7	8	7
Non-Farm Income	5	6	6
Tree Fruits and Nuts	4	4	4
Grains	3	3	3
Dairy	3	3	3
Swine	3	3	3
Cattle	2	2	2
Nursery/Greenhouse	2	2	3
Poultry	2	2	2
Tobacco	2	2	2
Other	9	9	11
Total	100 %	100 %	100 %

The relatively stable credit quality for the Capital Markets portfolio as of December 31 is shown in the following chart:

Capital Markets Credit Quality	2022	2021	2020
Acceptable	98.06 %	97.53 %	97.22 %
OAEM	0.83	1.68	2.25
Substandard/doubtful/loss	1.11	0.79	0.53
Total	100.00 %	100.00 %	100.00 %

Correspondent Lending

The Correspondent Lending portfolio consists primarily of first lien rural residential mortgages. The volume of this portfolio increased by 8.41 percent from year-end 2021 to 2022 and decreased 4.43 percent from year-end 2020 to 2021. The increase in volume in 2022 resulted primarily from the funding of purchased construction-to-permanent financing loans, in addition to a reduction in prepayments and payoffs due to the increase in interest rates. The decrease in volume in 2021 resulted primarily from increased early payoff activity by borrowers taking advantage of falling interest rates and refinancing with other lenders.

As of December 31, 2022, $617.1 million, or 19.54 percent, of loans in the Correspondent Lending portfolio include a long-term standby commitment to purchase (LTSP) and $2.541 billion, or 80.46 percent, are not covered under a LTSP. The LTSPs from the Federal National Mortgage Association (Fannie

Mae) and/or Federal Agricultural Mortgage Corporation (Farmer Mac), give AgFirst the right to deliver delinquent loans to the guarantor at par. The Bank ceased participation in the LTSP program during 2013. The remaining loans are included in the Bank's allowance for loan losses methodology related to this portfolio.

Correspondent Lending loans consist of the following at December 31:

	AgFirst Correspondent Lending					
(dollars in thousands)	2022		2021		2020	
Rural Home Loans – LTSP	$ 505,872	16.02 %	$ 594,699	20.42 %	$ 788,462	25.87 %
Part-time Farm Loans – LTSP	111,179	3.52	125,208	4.30	144,325	4.74
Non-guaranteed Loans	2,540,624	80.46	2,192,852	75.28	2,114,970	69.39
Total	$ 3,157,675	100.00 %	$ 2,912,759	100.00 %	$ 3,047,757	100.00 %

Rural home loans are underwritten to conform to Fannie Mae underwriting standards. Part-time farm loans conform to Farmer Mac underwriting standards.

Part-time farm loans represent first lien mortgages on homes with property characteristics (such as acreage or agricultural improvements) that may not conform to Fannie Mae standards. These loans are included in the Farmer Mac LTSP.

AgFirst Correspondent Lending retains servicing rights for some sold loans. The total volume serviced but not owned as of December 31, 2022 was $271.4 million. The Correspondent Lending loans are sub-serviced through agreements with third parties.

Credit quality for the Correspondent lending portfolio has remained relatively stable as shown in the following chart:

	Correspondent Lending Credit Quality as of:		
Classification	**2022**	**2021**	**2020**
Acceptable	99.51 %	99.48 %	99.58 %
Substandard/doubtful/loss	0.49	0.52	0.42
Total	100.00 %	100.00 %	100.00 %

RISK MANAGEMENT

Overview

The Bank is in the business of making agricultural and other loans that requires accepting certain risks in exchange for compensation for the risks undertaken. Proper management of the risks inherent in AgFirst's business is essential for current and long-term financial performance. Prudent and disciplined risk management includes an enterprise risk management structure to identify emerging risks and evaluate risk implications of decisions and actions taken. The objectives of risk management are to identify and assess risks, and to properly and effectively mitigate, measure, price, monitor, and report risks in the Bank's business activities.

The Bank's Executive Committee is responsible for risk management, including:

- Providing overall leadership, vision, and direction for enterprise risk management;
- Establishing an integrated risk management framework for all aspects of risk across the organization;
- Ensuring development of risk management policies, including the quantification of management's risk appetite through specific risk limits;
- Implementing a set of risk metrics and reports, including key risk exposures, early warning indicators and mitigation strategies;
- Optimizing the Bank's risk portfolio through business activities and risk transfer strategies;
- Improving the Bank's risk management readiness through recruiting and retaining top talent, coordination of communication and training programs, risk-based performance measurement and incentives, and other change management programs;
- Assigning responsibility for development of analytical systems and data management capabilities to support the risk management program; and
- Reporting periodically to the Board of Directors on actions taken to strengthen the Bank's system of internal control and top risks impacting the Bank.

The Executive Committee provides oversight of the Bank's risk management functions through an integrated management committee structure, including, among others, the Bank's Asset/Liability Management Committee (ALCO), Loan Committee, Special Assets Management Committee, Internal Control over Financial Reporting (ICFR) Steering Committee, Data Governance Steering Committee, Fraud Risk Management Steering Committee and Senior Leadership Committee.

Stress testing represents a critical component of the Bank's risk management process. Stress testing is primarily an analysis performed under a wide range of economic scenarios, including unlikely but plausible economic scenarios, and is designed to determine whether the Bank has enough capital to withstand the impact of adverse developments. The Bank is required by regulation to perform stress tests with a level of sophistication appropriate to its size and complexity.

Types of risk to which the Bank has exposure include:

- *structural risk* — risk inherent in the business and related to the System's structure, which is comprised of interdependent networks of cooperative lending institutions;
- *credit risk* — risk of loss arising from an obligor's failure to meet the terms of its contract or failure to perform as agreed;
- *interest rate risk* — risk that changes in interest rates may adversely affect the Bank's operating results and financial condition;
- *liquidity risk* — risk arising from the inability to meet obligations when they come due without incurring unacceptable losses, including the ability to access the debt market;
- *operational risk* — risk of loss resulting from inadequate or failed internal processes, systems, or controls; errors by employees; fraud; or external events;
- *reputational risk* — risk of loss resulting from events, real or perceived, that shape the image of the Bank, the System, or any of its entities, including the impact of investors' perceptions about agriculture and rural financing, the reliability of Bank or System financial information, or the actions of any System institution; and
- *political risk* — risk of loss of support for the System and agriculture by federal and state governments.

Structural Risk Management

Structural risk results from the fact that AgFirst, along with its related Associations, is part of the System, which is comprised of banks and associations that are cooperatively owned, directly or indirectly, by their borrowers. Each System institution is responsible for its own risk management, and there are no formal processes or procedures in place to mandate consistent Systemwide risk mitigation actions. Because System institutions are financially and operationally interdependent, this structure at times requires action by consensus or contractual agreement. The Funding Corporation provides for the issuance and marketing of Systemwide Debt Securities using a network of investment dealers and dealer banks. The System banks fund association loans with Systemwide debt. Refer to Note 6, *Debt*, in the Notes to the Financial Statements for further discussion. The banks are jointly and severally liable for the repayment of Systemwide Debt Securities, exposing each bank to the risk of default of the others. Although capital at the association level reduces the banks' credit exposures with respect to their related associations, that capital may not be available to support the payment of principal and interest on Systemwide Debt Securities.

In order to mitigate this risk, the System utilizes two integrated contractual agreements executed by and among the banks— the Amended and Restated Contractual Interbank Performance Agreement (CIPA) and the Third Amended and Restated Market Access Agreement (MAA). Under provisions of the CIPA, a score is calculated quarterly that measures the financial condition and performance of each district using various ratios that take into account each district's and bank's capital, asset quality, earnings, interest-rate risk, and liquidity. Based on these measures, the CIPA establishes an agreed-upon standard of financial condition and performance that each district must achieve and maintain. The CIPA also establishes monetary penalties if the performance standard is not met. These penalties will occur at the same point at which a bank would be required to provide additional monitoring information under the MAA.

The MAA establishes criteria and procedures that provide operational oversight and control over a bank's access to System funding if the creditworthiness of the bank declines below certain agreed-upon levels. The MAA provides for the identification and resolution of individual bank financial problems in a timely manner and discharges the Funding Corporation's statutory responsibility for determining conditions for each bank's participation in each issuance of Systemwide Debt Securities.

Credit Risk Management

Credit risk arises from the potential inability of an obligor to meet its repayment obligation and exists in outstanding loans, leases, letters of credit, unfunded loan commitments, investments and derivative counterparty credit exposures. The Bank manages credit risk associated with lending activities through an assessment of the credit risk profile of individual obligors. The Bank sets underwriting standards and lending policies consistent with FCA regulations, which provide direction to loan officers and are approved by the Board of Directors.

The credit risk management process begins with an analysis of a potential obligor's credit history, repayment capacity and financial position. Repayment capacity focuses on the obligor's ability to repay the obligation based on cash flows from operations or other sources of income. Real estate mortgage loans must be secured by first liens on the real estate collateral. As required by FCA regulations, each institution that makes loans on a secured basis must have collateral evaluation policies and procedures.

The credit risk rating process for loans uses a two-dimensional loan rating structure, incorporating a 14-point scale to identify and track a borrower's probability of default and a separate scale addressing loss given default. Probability of borrower default is the risk of default driven by factors intrinsic to the borrower. The risk of loss upon default is related to the structure of a credit (tenor, terms, and collateral).

The Bank and Associations limit their exposure to both borrower and commodity concentrations through their participation in loans or interests in loans to/from other institutions within the System and outside the System. This also allows the Bank and Associations to manage growth and capital, and to improve geographic diversification. Concentration risk is reviewed and measured by industry, product, geography and customer limits.

Although neither the Bank nor any other System institution receives any direct government support, credit quality is indirectly enhanced by government support in the form of program payments to borrowers, which improve their ability to honor their commitments.

The Bank's high-risk assets continue to be a small percentage of total loans in 2022, similar to 2021 and 2020, primarily due to generally favorable economic conditions, the Bank's underwriting standards, and continuous efforts to resolve problem assets. High-risk assets, including accrued interest, at December 31, are detailed in the following table:

(dollars in thousands)	2022	2021	2020
AgFirst High-risk Assets			
Nonaccrual loans	$ 37,118	$ 35,179	$ 26,253
Accruing restructured loans	43,386	25,100	8,622
Accruing loans 90 days past due	1,586	5,781	1,130
Total high-risk loans	82,090	66,060	36,005
Other property owned	—	—	—
Total high-risk assets	$ 82,090	$ 66,060	$ 36,005
Ratios			
Nonaccrual loans to total loans	0.12 %	0.12 %	0.10 %
High-risk assets to total assets	0.20 %	0.17 %	0.10 %

Nonaccrual Loans

Nonaccrual loans represent all loans for which there is a reasonable doubt as to the collection of principal and/or interest under the contractual terms of the loan. Nonaccrual loans for the Bank at December 31, 2022 were $37.1 million compared to $35.2 million at December 31, 2021. Nonaccrual loans increased $1.9 million during 2022 due primarily to loan balances transferred to nonaccrual status of $26.7 million, partially offset by repayments of $18.3 million and reinstatements to accrual status of $5.3 million. At December 31, 2022, total nonaccrual loans were primarily classified in the rural home loan (46.37 percent of the total) and field crops (35.94 percent) segments. At December 31, 2021, total nonaccrual loans were primarily classified in the rural home loan (49.17 percent of the total), utilities (31.27 percent), and tobacco (15.25 percent) segments.

Troubled Debt Restructurings

A troubled debt restructuring (TDR) occurs when a borrower is experiencing financial difficulties and a concession is granted to the borrower that the Bank would not otherwise consider. Concessions are granted to borrowers based on either an assessment of the borrower’s ability to return to financial viability or a court order. The concessions can be in the form of a modification of terms, rates, or amounts owed. Acceptance of other assets and/or equity as payment may also be considered a concession. The type of alternative financing granted is chosen in order to minimize the loss incurred by the Bank. TDRs increased $24.2 million since December 31, 2021 and totaled $53.8 million at December 31, 2022. This increase resulted primarily from loan modifications at the end of the pandemic-related forbearance programs offered by FNMA. The total was comprised of $43.4 million of accruing restructured loans and $10.4 million of nonaccrual restructured loans. At December 31, 2022, restructured loans were primarily in the rural home loan (59.96 percent of the total) and processing (20.12 percent) segments. At December 31, 2021, restructured loans were primarily in the rural home loan (79.19 percent of the total) segment.

Other Property Owned

Other property owned (OPO) consists primarily of assets once pledged as loan collateral that were acquired through foreclosure or deeded to the Bank (or a lender group) in satisfaction of secured loans. OPO may be comprised of real estate, equipment, and equity interests in companies or partnerships. The Bank had no OPO at both December 31, 2022 and 2021.

Allowance for Loan Losses

The Bank maintains an allowance for loan losses at a level management considers adequate to provide for probable and estimable credit losses within the loan portfolio as of each reported balance sheet date. The Bank increases the allowance by recording a provision for loan losses in the income statement. Loan losses are recorded against and serve to decrease the allowance when management determines that any portion of a loan is uncollectible. Any subsequent recoveries are added to the allowance. Impaired and certain other significant loans were reviewed individually to determine that appropriate reserves were in place at year-end. All other loans were analyzed collectively and general reserves were established based on that collective analysis, including the risk rating and potential for loss given default of the underlying loans.

The following table presents the activity in the allowance for loan losses for the most recent three years at December 31:

AgFirst Allowance for Loan Losses Activity

(dollars in thousands)	2022	2021	2020
Balance at beginning of year	$ 20,147	$ 18,257	$ 18,032
Charge-offs:			
Real Estate Mortgage	(13)	—	—
Production and Intermediate-Term	(10)	—	—
Power and Water/Waste Disposal	(864)	—	—
Rural Residential Real Estate	(1,279)	(1,881)	(104)
Total charge-offs	(2,166)	(1,881)	(104)
Recoveries:			
Production and Intermediate-Term	—	21	6,549
Rural Residential Real Estate	385	198	—
Total recoveries	385	219	6,549
Net (charge-offs) recoveries	(1,781)	(1,662)	6,445
Provision for (reversal of) allowance for loan losses	7,704	3,552	(6,220)
Balance at end of year	$ 26,070	$ 20,147	$ 18,257
Ratio of net (charge-offs) recoveries during the period to average loans outstanding during the period	(0.01)%	(0.01)%	0.03 %

The allowance for loan losses totaled $26.1 million at December 31, 2022, as compared with $20.1 million at December 31, 2021 and $18.3 million at December 31, 2020. The allowance at December 31, 2022 included specific reserves of $4.0 million (15.19 percent of the total) and $22.1 million of general reserves (84.81 percent), related primarily to Capital Markets loans. The general reserves at December 31, 2022 also included $5.3 million of allowance provided by the Bank for non-LTSP loans in the Correspondent Lending portfolio. None of the allowance relates to the Direct Note portfolio. See further discussion in *Direct Notes* and *Correspondent Lending* in the *Loan Portfolio* section, above. See *Provision for Loan Losses* in the *Results of Operations* section, below, for details regarding loan loss provision expense and reversals. During 2022, the rural home loan (59.07 percent of the total) and the utilities (39.88 percent) segments accounted for the majority of charge-offs and the rural home loan segment accounted for all recoveries. The total allowance at December 31, 2022 was comprised primarily of reserves for the rural home loan (23.76 percent of the total), processing (16.18 percent), field crops (15.56 percent), utilities (9.11 percent), and forestry (6.72 percent) segments. The total allowance at December 31, 2021 was comprised primarily of reserves for the rural home loan (25.56 percent of the total), utilities (17.33 percent), processing (16.29 percent), tree fruits and nuts (7.11 percent), and forestry (6.82 percent) segments.

The allowance for loan losses by loan type for the most recent three years, at December 31, is presented in the following table:

AgFirst Allowance for Loan Losses by Loan Type

(dollars in thousands)	2022	2021	2020
Real Estate Mortgage	$ 1,421	$ 1,513	$ 1,551
Production and Intermediate-Term	6,757	3,583	3,289
Agribusiness	8,212	5,532	4,553
Communication	1,276	994	923
Power and Water/Waste Disposal	1,669	2,854	1,024
Rural Residential Real Estate	6,194	5,149	6,394
Loans to OFIs	337	327	294
International	108	84	130
Other	96	111	99
Total	$ 26,070	$ 20,147	$ 18,257

The allowance for loan losses as a percentage of loans outstanding and certain other credit quality indicators, at December 31, is shown below:

	2022	2021	2020
Allowance for loan losses to loans	0.08 %	0.07 %	0.07 %
Allowance for loan losses to nonaccrual loans	70.24 %	57.27 %	69.55 %
Allowance for loan losses to loans excluding Direct Note	0.25 %	0.23 %	0.22 %

The Bank's credit quality has remained relatively stable; however, periods of uncertainty in the general economic environment create the potential for prospective risks in the loan portfolio. See Note 3, *Loans and Allowance for Loan Losses*, in the Notes to the Financial Statements and the *Critical*

Accounting Policies section, above, for further information concerning the allowance for loan losses. See Note *2, Summary of Significant Accounting Policies,* in the Notes to the Financial Statements for the impact of the CECL accounting standard adopted on January 1, 2023.

Interest Rate Risk Management

Interest rate risk is the risk of loss of future earnings or long-term market value of equity that may result from changes in interest rates. This risk can produce variability in Bank earnings (net interest spread achieved and net interest income earned) and, ultimately, the long-term capital position of the Bank. The objective of interest rate risk management is to generate a reliable level of net interest income in any interest rate environment and to preserve the long-term market value of equity. AgFirst uses a variety of analytical techniques to manage the complexities associated with offering numerous loan options. Interest rate sensitivity gap analysis is used to monitor the repricing and maturity characteristics of AgFirst's interest-earning assets and interest-bearing liabilities. Simulation analysis is used to determine the potential change in net interest income and in the market value of equity under various possible future market interest rate environments.

AgFirst and the District Associations adhere to a philosophy that loans should be priced competitively in the market and that loan rates and spreads should be contractually established at loan closing such that a borrower is not subject to rate changes at the discretion of management or boards of directors. Therefore, District Association variable rate and adjustable rate loans are generally indexed to market rates, and fixed rate loans are priced based on market rates. Loan products offered by the Associations include Prime- or other reference rate-indexed variable rate loans, one-, three-, and five-year Treasury-indexed adjustable rate loans, and fixed rate loans. Variable rate and adjustable rate loans are offered with or without caps. Terms are available for up to 30 years. A variety of repayment options are offered, with the ability to pay on a monthly, quarterly, semi-annual or annual frequency. In addition, customized repayment schedules may be negotiated to fit a borrower's unique circumstances.

The following tables represent AgFirst's market value of equity and projected change over the next twelve months in net interest income for various rate movements as of December 31, 2022 and December 31, 2021. The upward and downward shocks generally capture the effects of embedded options and convexity within the assets and liabilities based on movements in interest rates.

December 31, 2022

Market Value of Equity *(dollars in thousands)*

Scenarios	Assets	Liabilities	Equity	% Change
Book Value	$ 42,072,720	$ 40,621,101	$ 1,451,619	— %
+2.0% Shock	$ 37,483,063	$ 36,453,370	$ 1,029,693	(5.44)%
+1.0% Shock	$ 38,231,265	$ 37,187,931	$ 1,043,334	(4.18)%
Base line **	$ 39,214,306	$ 38,125,419	$ 1,088,887	— %
-1.0% Shock	$ 40,156,779	$ 38,990,512	$ 1,166,267	7.11 %
-2.0% Shock	$ 41,133,705	$ 39,826,522	$ 1,307,183	20.05 %

December 31, 2021

Market Value of Equity *(dollars in thousands)*

Scenarios	Assets	Liabilities*	Equity	% Change
Book Value	$ 39,274,554	$ 37,004,274	$ 2,270,280	— %
+2.0% Shock	$ 37,182,884	$ 34,959,055	$ 2,223,829	(16.88)%
+1.0% Shock	$ 38,248,501	$ 35,796,205	$ 2,452,296	(8.34)%
Base line **	$ 39,335,164	$ 36,659,685	$ 2,675,479	— %
-50% of 3M Tbill***	$ 39,366,721	$ 36,685,289	$ 2,681,432	0.22 %

** For interest rate risk management, the $32.5 million perpetual preferred stock is included in liabilities rather than equity in 2021 .*
***Base line uses rates as of the balance sheet date before application of any interest rate shocks.*
****When the three-month Treasury bill interest rate is less than 4 percent, both the minus 100 and minus 200 basis point shocks are replaced with a downward shock which is equal to one-half of the three-month Treasury bill rate. At December 31, 2021, this downward shock was (3) basis points.*

As of December 31, 2022, the Bank changed the methodology used to determine Direct Note rates on outstanding advances. The change in Direct Note rate administration reduced the duration of the Direct Notes and the average Direct Note rate applicable to the portfolio. As a result, MVE sensitivity decreased from -17.80 percent (calculated under the previous methodology) to -5.44 percent for a +2.0 percent shock at December 31, 2022.

December 31, 2022		
	Net Interest Income *(dollars in thousands)*	
Scenarios	**Net Interest Income**	**% Change**
+2.0% Shock	$539,260	7.65%
+1.0% Shock	$519,571	3.72%
Base line*	$500,917	—%
-1.0% Shock	$490,192	(2.14)%
-2.0% Shock	$484,594	(3.26)%

December 31, 2021		
	Net Interest Income *(dollars in thousands)*	
Scenarios	**Net Interest Income**	**% Change**
+2.0% Shock	$629,762	2.70%
+1.0% Shock	$628,051	2.31%
Base line*	$613,888	—%
-50% of 3M TBill**	$612,723	(0.19)%

**Base line uses rates as of the balance sheet date before application of any interest rate shocks.*
***When the three-month Treasury bill interest rate is less than 4 percent, both the minus 100 and minus 200 basis point shocks are replaced with a downward shock which is equal to one-half of the three-month Treasury bill rate. At December 31, 2021, this downward shock was (3) basis points.*

The following table sets forth the repricing characteristics of interest-earning assets and interest-bearing liabilities outstanding at December 31, 2022. The amount of assets and liabilities shown in the table, which reprice or mature during a particular period, were determined in accordance with the earlier of term-to-repricing or contractual maturity, anticipated prepayments, and, in the case of liabilities, the exercise of call options. Anticipated loan prepayments are based on AgFirst's historical prepayment activity during various interest rate cycles.

	Repricing/Maturity Gap Analysis				
(dollars in thousands)	**0 to 6 Months**	**6 Months to 1 Year**	**1 to 5 Years**	**Over 5 Years**	**Total**
Floating Rate Loans					
Adjustable/Indexed Loans	$ 8,346,236	$ 18,431	$ 12,401	$ 503	$ 8,377,571
Fixed Rate Loans					
Fixed Rate Loans	32,361	24,377	115,213	65,645	237,596
Fixed Rate Prepayable	2,726,122	2,167,079	10,741,477	7,181,769	22,816,447
Nonaccrual Loans					
Nonaccrual Loans	—	—	—	37,118	37,118
Total Loans	**11,104,719**	**2,209,887**	**10,869,091**	**7,285,035**	**31,468,732**
Total Investments *	**2,985,633**	**845,852**	**3,316,572**	**2,277,751**	**9,425,808**
Other Interest-earning Assets	**413,415**	**—**	**—**	**—**	**413,415**
TOTAL INTEREST-EARNING ASSETS	**$ 14,503,767**	**$ 3,055,739**	**$ 14,185,663**	**$ 9,562,786**	**$ 41,307,955**
Interest-Bearing Liabilities					
Systemwide Bonds and Notes	$ 12,870,921	$ 3,962,000	$ 14,575,000	$ 8,732,000	$ 40,139,921
TOTAL INTEREST-BEARING LIABILITIES	**$ 12,870,921**	**$ 3,962,000**	**$ 14,575,000**	**$ 8,732,000**	**$ 40,139,921**
Interest Rate Sensitivity Gap	**$ 1,632,846**	**$ (906,261)**	**$ (389,337)**	**$ 830,786**	
Sensitivity Gap as a % of Total Earning Assets	3.95 %	-2.19 %	-0.94 %	2.01 %	
Cumulative Gap	$ 1,632,846	$ 726,585	$ 337,248	$ 1,168,034	
Cumulative Gap as a % of Total Earning Assets	3.95 %	1.76 %	0.82 %	2.83 %	
Rate Sensitive Assets/Rate Sensitive Liabilities	1.13	0.77	0.97	1.10	

** Includes cash equivalents.*

At December 31, 2022, the twelve month Cumulative Repricing/Maturity Gap position of the Bank was asset sensitive, meaning the volume of repricing/maturing assets exceeded the volume of liabilities that mature or reprice during that time period. Asset sensitivity generally implies an increase in net interest income in rising interest rate scenarios and lower net interest income in falling interest rate scenarios.

The Repricing/Maturity Gap Analysis is a "point in time" view and is representative of the interest rate environment at December 31, 2022. Optionality imbedded in assets and liabilities will alter the repricing/maturity gap under various interest rate scenarios. Therefore, the Repricing/Maturity Gap Analysis must be used with other analysis methods to capture the repricing and maturity attributes of balance sheet accounts that react differently in changing interest rate environments. For example, during a period of rising interest rates, call options on fixed rate debt are not exercised and the debt terms extend to reflect the longer contractual maturity dates. Prepayment optionality on fixed rate assets also slows as the economic incentive for borrowers to refinance decreases and extends the asset's term.

To supplement the Repricing/ Maturity Gap Analysis, the Bank utilizes a financial simulation model for measuring interest rate sensitivity of net interest income and market value of equity as mentioned above. These two interest rate risk metrics are measured and reported on a monthly basis to the Bank's ALCO and quarterly to the Board of Directors. They are also calculated periodically during the month as the management of interest rate risk is an on-going function embedded in the funding operations. At December 31, 2022, the simulations reflected an increase of 7.65 percent in net interest income for a +200 basis point parallel shift in interest rates. This change was within the Bank's standard policy limit of -16.00 percent. The simulations reflect a decrease in net interest income in the -100 and -200 basis point scenarios primarily due to the rapid increase in interest rates during 2022 which prevents a significant portion of debt to be called and replaced at these lower interest rates.

Market value of equity reflected a negative sensitivity in rising interest rate scenarios due to the Bank's strategy of utilizing equity as a long-term funding source. When equity is used as long-term funding, its market value behaves similarly to a fixed rate bond. The simulations reflected a decrease of 5.44% in market value of equity for a +200 basis point parallel shift in interest rates which was within the Bank's policy limit of -20.00 percent and considered appropriate by management for this funding structure. The Bank's market value of equity sensitivity to falling interest rates increased by 20.05% for a -200 basis point scenario as a decline in interest rates positively impacts the market value of the investment securities portfolio.

The Bank may, under certain conditions, use derivatives for asset/liability management purposes to reduce interest rate risk. AgFirst policy prohibits the use of derivatives for speculative purposes. At December 31, 2022, the Bank had two foreign currency forwards outstanding with a total notional value of $1.1 million. At December 31, 2021, the Bank had one foreign currency forward outstanding with a notional value of $2.3 million.

The LIBOR Transition

In 2017, the United Kingdom's Financial Conduct Authority (UK FCA), which regulates LIBOR, announced its intention to stop persuading or compelling the group of major banks that sustains LIBOR to submit rate quotations after 2021. As a result, it was uncertain whether LIBOR would continue to be quoted after 2021.

On March 5, 2021, ICE Benchmark Administration (IBA) (the entity that is responsible for calculating LIBOR) announced its intention to cease the publication of the one-week and two-month US dollar LIBOR settings immediately following the LIBOR publication on December 31, 2021, and the remaining US dollar LIBOR settings immediately following the LIBOR publication on June 30, 2023. On the same day, the UK FCA announced that the IBA had notified the UK FCA of its intent, among other things, to cease providing certain US dollar LIBOR settings as of June 30, 2023. In its announcement, the UK FCA confirmed that all 35 LIBOR tenors (including with respect to US dollar LIBOR) will be discontinued or declared nonrepresentative as of either: (a) immediately after December 31, 2021 or (b) immediately after June 30, 2023.

The Bank and Associations have exposure to LIBOR arising from loans made to customers, investment securities purchased, and Systemwide Debt Securities issued by the Funding Corporation on the Bank's behalf. Alternative reference rates that replace LIBOR may not yield the same or similar economic results over the lives of the financial instruments, which could adversely affect the value of, and return on, instruments held.

The FCA has issued guidance similar to that of the U.S. prudential regulators but applicable for System institutions to follow as they prepare for the expected phase-out of LIBOR. The guidelines direct each System institution to develop a LIBOR transition plan designed to provide an orderly roadmap of actions that will reduce LIBOR exposure, stop the inflow of new LIBOR volume, and adjust operating processes to implement alternative reference rates.

The Bank and Associations have implemented LIBOR transition plans and continue to analyze potential risks associated with the LIBOR transition, including, but not limited to, financial, market, accounting, operational, legal, tax, reputational, and compliance risks.

On December 16, 2022, the Federal Reserve Board adopted a final rule implementing certain provisions of the LIBOR Act ("Regulation ZZ"). Regulation ZZ specifies that on the LIBOR replacement date, which is the first London banking day after June 30, 2023, the Federal Reserve Board-selected benchmark replacement, based on SOFR and including any tenor spread adjustment as provided by Regulation ZZ, will replace references to overnight, one-month, three-month, six-month, and 12-month LIBOR in certain contracts that do not mature before the LIBOR replacement date and that do not contain adequate fallback language. While substantially all contracts, including Systemwide Debt Securities and loans made by District institutions, have adequate fallbacks to replace LIBOR, the LIBOR Act and Regulation ZZ could apply to certain Systemwide Debt Securities and investments, and loans that reference LIBOR and have no or inadequate fallback provisions.

The following is a summary of Bank outstanding variable-rate financial instruments tied to LIBOR based on contractual maturity at December 31, 2022:

(dollars in millions)	December 31, 2022 Due Before June 30, 2023	Due After June 30, 2023	Total	% Due After June 30, 2023 to Balance Sheet Line Item	% Due After June 30, 2023 without fallback provisions
Investments	$ —	$ 754	$ 754	8.3%	—%
Loans	31	1,746	1,777	5.5%	0.6%
Total Assets	$ 31	$ 2,500	$ 2,531	5.9%	0.4%
Systemwide debt securities	$ 35	$ —	$ 35	N/A	N/A
Total Liabilities and Equity	$ 35	$ —	$ 35	N/A	N/A

The Bank is actively monitoring LIBOR exposure of the financial instruments listed in the table above as part of its LIBOR Transition Plan (Plan). The Plan includes implementing fallback language into variable-rate financial instruments which provides the ability to move these instruments to another index. A large portion of the Bank's loans that have exposure to LIBOR are purchased from other financial institutions and the Bank is dependent on the other financial institutions to perform the borrower negotiations. To the extent that any loan has not been prepaid, redeemed or amended prior to June 30, 2023 to include a non-LIBOR fallback rate, pursuant to the LIBOR Act and Regulation ZZ, the LIBOR-based rate that would have been paid under such loan will be replaced by operation of law.

In accordance with the LIBOR transition plan, the remaining outstanding shares of the Bank's preferred stock of $32.5 million were redeemed on June 15, 2022.

The following is a summary of total Association variable-rate financial instruments outstanding with LIBOR exposure at period end:

(dollars in millions)	December 31, 2022 Due Before June 30, 2023	Due After June 30, 2023	Total	% Due After June 30, 2023 to Balance Sheet Line Item	% Due After June 30, 2023 without fallback provisions
Loans	$ 23	$ 816	$ 839	2.9%	0.2%
Total Assets	$ 23	$ 816	$ 839	2.8%	0.2%

Liquidity Risk Management

Liquidity risk management is necessary to ensure the Bank's ability to meet its financial obligations. One of AgFirst's primary responsibilities is to maintain sufficient liquidity to fund the lending operations of the District Associations, in addition to its own needs. Along with normal cash flows associated with lending operations, AgFirst has two primary sources of liquidity: the capacity to issue Systemwide Debt Securities through the Federal Farm Credit Banks Funding Corporation; and cash and investments. The Bank also has investment securities repurchase agreements in place with several commercial banks for commitments totaling approximately $6.050 billion. A standard repurchase agreement involves the acquisition of immediately available funds through the sale of securities with a simultaneous commitment to repurchase the same securities on a certain date within one year at a specified price, including interest at an agreed upon rate. In addition, the System has established a line of credit with Federal Financing Bank (see further discussion in *Systemwide Debt Securities* section below) in the event contingency funding is needed to meet obligations of System banks.

Cash, Cash Equivalents and Investments

FCA regulations provide that a System bank may hold certain eligible available-for-sale investments in an amount not to exceed 35.00 percent of its quarterly average balance of total loans outstanding. Based upon FCA guidelines, at December 31, 2022, the Bank's eligible available-for-sale investments were 32.99 percent of its quarterly average daily balance of loans outstanding. These investments serve to provide liquidity to the Bank's operations, to manage short-term funds, and to manage interest rate risk. AgFirst maintains an investment portfolio for these purposes comprised primarily of short-duration, high-quality investments.

Cash, cash equivalents, and investment securities as of December 31, 2022 totaled $10.172 billion compared to $10.362 billion and $9.729 billion at December 31, 2021 and 2020, respectively.

As of December 31, 2022, AgFirst exceeded all applicable regulatory liquidity requirements. FCA regulations require that the Bank have a liquidity policy that establishes a minimum total "coverage" level of 90 days and that short-term liquidity requirements must be met by certain high quality investments or cash. "Coverage" is defined as the number of days that maturing debt could be funded with eligible cash, cash equivalents, and available-for-sale investments maintained by the Bank.

Eligible liquidity investments are classified according to three liquidity quality levels with level 1 being the most liquid. The first 15 days of minimum liquidity coverage are met using only level 1 instruments, which include cash and cash equivalents. Days 16 through 30 of minimum liquidity coverage are met using level 1 and level 2 instruments. Level 2 consists primarily of U.S. government guaranteed securities. Days 31 through 90 are met using level 1, level 2, and level 3 securities. Level 3 consists primarily of U.S. agency investments. Additionally, a supplemental liquidity buffer in excess of the 90-day minimum liquidity reserve is set to provide coverage to at least 120 days.

At December 31, 2022, AgFirst met all individual level criteria and had a total of 221 days of maturing debt coverage. The Bank's cash and cash equivalents position provided 25 days of the total liquidity coverage. Investment securities fully backed by the U.S. government or U.S. government agencies provided 189 days of liquidity. An additional 7 days of coverage were provided by a supplemental liquidity buffer. Cash provided by the Bank's operating activities, primarily generated from net interest income in excess of operating expenses and maturities in the loan portfolio, is an additional source of liquidity for the Bank that is not reflected in the coverage calculation. In order to optimize Bank capital and reduce the Bank's relative exposure to price volatility inherent in the investment portfolio, the Bank has begun reducing the size of the portfolio in relationship to loans outstanding, with a target of maintaining 180 days of liquidity.

An agreement with a commercial bank requires AgFirst to maintain $50.0 million as a compensating balance. At December 31, 2022, the Bank held $40.2 million in U.S. Treasury securities for that purpose. The remainder of the compensating balance is held in cash in a demand deposit account. These securities are excluded when calculating the amount of eligible liquidity investments.

AgFirst's cash, cash equivalents and investment portfolio consisted of the following security types as of December 31:

	AgFirst Cash, Cash Equivalents and Investment Securities					
(dollars in thousands)	2022		2021		2020	
Investment Securities Available-for-Sale						
U.S. Govt. Treasury Securities	$ 139,716	1.54 %	$ 342,113	3.66 %	$ 318,870	3.75 %
U.S. Govt. Guaranteed	3,979,473	43.85	4,165,087	44.61	4,361,424	51.22
Rural Housing U.S. Govt. Agency Guaranteed	127,567	1.41	175,958	1.88	257,380	3.02
Other U.S. Govt. Agency Guaranteed	4,409,978	48.59	4,280,477	45.85	2,898,177	34.03
Non-Agency Asset-Backed Securities	405,016	4.46	353,937	3.79	649,499	7.63
Total Available-for-Sale	$ 9,061,750	99.85 %	$ 9,317,572	99.79 %	$ 8,485,350	99.65 %
Investment Securities Held-to-Maturity						
Farmer Mac Guaranteed	$ 436	— %	$ 475	0.01 %	$ 1,121	0.01 %
Other Mission Related Investments	13,622	0.15	18,658	0.20	28,957	0.34
Total Held-to-Maturity	14,058	0.15	19,133	0.21	30,078	0.35
Total Investment Securities	$ 9,075,808	100.00 %	$ 9,336,705	100.00 %	$ 8,515,428	100.00 %
Cash and Cash Equivalents						
Cash	$ 332,977	30.37 %	$ 521,502	50.87 %	$ 584,953	48.20 %
Interest-earning Cash	413,415	37.71	103,786	10.12	108,732	8.96
Repurchase Agreements	350,000	31.92	400,000	39.01	520,000	42.84
Total Cash and Cash Equivalents	$ 1,096,392	100.00 %	$ 1,025,288	100.00 %	$ 1,213,685	100.00 %
Total Investment Securities and Cash and Cash Equivalents	$ 10,172,200		$ 10,361,993		$ 9,729,113	

Cash and cash equivalents, which increased $71.1 million from December 31, 2021 to a total of $1.096 billion at December 31, 2022, consist primarily of noninterest- and interest-earning cash on deposit and money market securities that are short-term in nature (maturities of overnight to 90 days). Incremental movements in cash and cash equivalents balances between reporting periods are due primarily to changes in liquidity needs in relation to upcoming debt maturities and operational funding needs.

Investment securities decreased $260.9 million, or 2.79 percent, to $9.076 billion, or 21.57 percent of total assets at December 31, 2022, compared to $9.337 billion, or 23.77 percent, as of December 31, 2021. As outlined above, the Bank is allowing the investment portfolio to pay down to a target of 180 days of liquidity to reduce the Bank's relative exposure to price volatility and optimize Bank capital.

Investment securities classified as being available-for-sale totaled $9.062 billion at December 31, 2022. Since the majority of the portfolio is invested in U.S. government guaranteed and agency securities, the portfolio is highly liquid and potential credit loss exposure is limited. As of December 31, 2022, all of the non-agency asset-backed securities were rated in the top category (AAA/Aaa) by Nationally Recognized Statistical Rating Organizations (NRSROs).

AgFirst also maintains a portfolio of investments that are not held for liquidity purposes and are accounted for as a held-to-maturity portfolio. These investments were authorized by FCA regulations that allow investments in Farmer Mac securities and also in investments approved by the FCA as Mission Related Investments. Investment securities classified as held-to-maturity declined to $14.1 million at December 31, 2022 due to normal paydowns on the securities.

Net unrealized losses related to investment securities were $994.2 million at December 31, 2022, compared to net unrealized gains of $22.0 million at December 31, 2021. The net unrealized losses in 2022 are primarily the result of a significant increase in interest rates which decreased the fair value of existing available-for-sale fixed rate investment securities. The unrealized gains and losses are reflected in Accumulated Other Comprehensive Income (AOCI) in the Financial Statements.

The Bank performs periodic credit reviews, including other-than-temporary impairment analyses, on its entire investment securities portfolio. Based on the results of all analyses, the Bank did not recognize any other-than-temporary credit related impairment during the year ended December 31, 2022. See Note 2, *Summary of Significant Accounting Policie*s and Note 4, *Investments,* in the Notes to the Financial Statements for further information.

Systemwide Debt Securities

The U.S. government does not guarantee, directly or indirectly, Systemwide Debt Securities. However, the Farm Credit System, as a GSE, has benefited from broad access to the domestic and global capital markets. This access has provided the System with a dependable source of competitively priced debt which is critical for supporting the System's mission of providing credit to agriculture and rural America.

AgFirst'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. AgFirst continually raises funds in the debt markets to support its mission, to repay maturing Systemwide Debt Securities, and to meet other obligations.

The Farm Credit Act and Farm Credit Administration regulations require, as a condition for a Bank's participation in the issuance of Systemwide Debt Securities, that the Bank maintain specified eligible assets, referred to in the Farm Credit Act as "collateral," at least equal in value (100.00 percent) to the total amount of the debt securities outstanding for which it is primarily liable. At December 31, 2022 and 2021, the statutory collateral ratio was 103.63 percent and 106.81 percent, respectively. The decline during 2022 was primarily driven by the significant increase in interest rates which has significantly decreased the fair value of investment securities in the collateral of the ratio. As mentioned above, as part of its efforts to manage price volatility of the investment portfolio, the Bank is reducing the size of the investment portfolio through natural paydown.

The System does not have a guaranteed line of credit from the U.S. Treasury or the Federal Reserve. However, the Farm Credit System Insurance Corporation (FCSIC) has an agreement with the Federal Financing Bank (FFB), a federal instrumentality subject to the supervision and direction of the U.S. Treasury, pursuant to which the FFB could advance funds to the FCSIC. Under its existing statutory authority, the FCSIC may use these funds to provide assistance to the System banks in exigent market circumstances which threaten the banks' ability to pay maturing debt obligations. The agreement provides for advances of up to $10 billion and terminates on September 30, 2023, unless otherwise renewed. The decision whether to seek funds from the FFB is at the discretion of the FCSIC. Each funding obligation of the FFB is subject to various terms and conditions and, as a result, there can be no assurance that funding would be available if needed by AgFirst or the System.

Currently, Moody's Investors Service and Fitch Ratings have assigned long-term debt ratings for the System of Aaa and AAA, and short-term debt ratings of P-1 and F1, respectively. These are the highest ratings available from these rating agencies. S&P Global Ratings (S&P) maintains the long-term debt rating of the System at AA+, which directly corresponds to its AA+ long-term sovereign credit rating of the U.S. government. These rating agencies base their ratings on many quantitative and qualitative factors, including the System's status as a GSE. Negative changes to the System's credit ratings could reduce earnings by increasing debt funding costs, and could also have a material adverse effect on liquidity, the ability to conduct normal business operations, and the Bank's overall financial condition and results of operations. However, AgFirst anticipates continued access to funding necessary to support the District's and Bank's needs.

AgFirst's year-to-date average balance of Systemwide Debt Securities at December 31, 2022, was $38.267 billion. At December 31, 2022, AgFirst had $40.140 billion in total System debt outstanding compared to $36.357 billion at December 31, 2021 and $33.356 billion at December 31, 2020. Total interest-bearing liabilities increased primarily due to additional funding needs related to higher volume of loans as discussed elsewhere in this report.

Refer to Note 6, *Debt*, in the Notes to the Financial Statements, for additional information related to debt.

Operational Risk Management

Operational risk is the risk of loss resulting from inadequate or failed processes or systems, human factors or external events, including the execution of unauthorized transactions by employees, errors relating to transaction processing and technology, breaches of the internal control system and the risk of fraud by employees or persons outside the System. AgFirst's and the Associations' boards of directors are required, by regulation, to adopt internal control policies that provide adequate direction to their respective institutions in establishing effective controls over and accountability for operations, programs, and resources. The policies must include, at a minimum, the following items:

- recruiting and retaining skilled professional employees;
- direction to management that assigns responsibility for the internal control function to an officer of the institution;
- adoption of internal audit and control procedures;
- direction for the operation of a program to review and assess an institution's assets;
- adoption of loan, loan-related assets and appraisal review standards, including standards for scope of review selection and standards for work papers and supporting documentation;
- adoption of asset quality classification standards;
- adoption of standards for assessing credit administration, including the appraisal of collateral; and
- adoption of standards for the training required to initiate a program.

In addition, AgFirst has implemented a Risk Management Policy to ensure that business exposures to risk are identified, measured and controlled, using the most effective and efficient methods to mitigate such exposures. AgFirst's risk management structure was designed to ensure that an effective enterprise-wide risk management program is in place. Exposure to operational risk is typically identified with the assistance of senior management, and internal audit plans are developed with higher risk areas receiving more attention. AgFirst's operations rely on the secure processing, transmission and storage of confidential information in its computer systems and networks. Although AgFirst believes that it has robust information security procedures and controls, its technologies, systems, networks and customers' devices may be the target of cyber-attacks or information security breaches. Failure in or breach of AgFirst's operational or security systems or infrastructure, or those of its third-party vendors and other service providers, including as a result of cyber-attacks, could disrupt AgFirst's businesses or the businesses of its customers, result in the unintended disclosure or misuse of confidential or proprietary information, damage the Bank's reputation, increase costs, and cause losses.

No control system, no matter how well designed and operated, can provide absolute assurance that the objectives of the control systems are met. Also, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud or errors can be detected. These inherent limitations include, but are not limited to, the realities that judgments in decision-making can be faulty and breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by individual acts of some persons, collusion of two or more people, or management override of the control. The design of any system of controls also is based in part on certain assumptions about the likelihood of future events and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may be inadequate because of changes in conditions, or compliance with policies or procedures may deteriorate.

Human Capital

The Bank recognizes that employees are the key to success and therefore, strives to make the workplace attractive for all employees. Effective human capital management results from the recruitment and retention of a highly qualified workforce that is aligned with the core values and mission. The Bank has an onboarding program dedicated to familiarizing all new hires with the culture, values and the mission of effectively serving the needs of rural America and agriculture.

The Bank's human capital strategy is carried out under the oversight of the board of directors. The strategy includes a Human Capital Plan (Plan) that focuses on three broad areas: (1) assessment of workforce and performance management, (2) succession planning and (3) diversity and inclusion.

Assessment of Workforce and Performance Management

The Plan provides a description of the workforce and an assessment of strengths and weaknesses within the workforce. The Plan also takes into account effective strategies to evaluate the workforce including reviewing job descriptions to make sure the skills needed are accurately defined, engaging in a performance review process to assess skills desired against skills employees have, and training to address any gaps.

Succession Programs

Succession planning is necessary to ensure that talent and skills are available and essential knowledge and organizational culture are maintained when employees in key positions depart. The Plan also provides for management succession planning and strategies with the main objective of identifying critical workforce positions and developing a targeted pool of potential successors.

Diversity and Inclusion

Diversity and inclusion are embedded within each phase of the employment life cycle, including recruitment, on-boarding, new employee immersion and employee retention and development. Effective diversity and inclusion strategies require a continuous cultivation of a welcoming, inclusive and collaborative environment that values the life experiences of all employees.

At December 31, 2022, the Bank employed 501 full-time employees of which 51% were women, 49% men and 31% minorities, based on employee self-reporting.

Reputational Risk Management

Reputation risk is defined as the negative impact resulting from events, real or perceived, that shape the image of the Bank, System or any of its entities. Such risks include impacts related to investors' perceptions about agriculture, the reliability of the Bank, System, or other System institution financial information or actions by the Bank or any other System institution. Entities that serve the System at the national level, including the Coordinating Committee, the Presidents' Planning Committee and The Farm Credit Council (see below), will communicate guidance to the System for reputational issues that have broader consequences for the System as a whole. These entities support those business and other practices that are consistent with the Bank's mission.

Political Risk Management

Political risk to the System is the risk of loss of support for the System or agriculture by the U.S. government. System institutions are instrumentalities of the federal government and are intended to further governmental policy concerning the extension of credit to or for the benefit of agriculture and rural America. The System and its borrowers may be significantly affected by federal legislation that impacts the System directly, such as changes to the Farm Credit Act, or indirectly, such as agricultural appropriations bills. However, government support programs generally account for a relatively small percentage of net farm income in the territory served by the District Associations.

The District addresses political risk by actively supporting The Farm Credit Council, which is a full-service trade association representing the System before Congress, the Executive Branch, and others. The Farm Credit Council provides the mechanism for "grassroots" involvement in the development of System positions and policies with respect to federal legislation and government actions that impact the System. Additionally, the District takes an active role in representing the individual interests of System institutions and their borrowers before Congress. Each district has its own Council, which is a member of The Farm Credit Council. The district Councils represent the interests of their members on a local and state level, as well as on a federal level.

RESULTS OF OPERATIONS

Net Income

AgFirst net income totaled $412.0 million for the year ended December 31, 2022, a decrease of $74.0 million from 2021. Net income of $486.0 million for the year ended December 31, 2021 was an increase of $68.3 million from 2020. Major components of the changes in net income for the referenced periods are outlined in the following table and discussion:

Change in Net Income	**Year Ended December 31,**	
(dollars in thousands)	**2022**	**2021**
Net income (for prior year)	$ 486,006	$ 417,678
Increase (decrease) due to:		
Total interest income	296,634	(98,826)
Total interest expense	(339,497)	165,877
Net interest income	(42,863)	67,051
Provision for loan losses	(4,152)	(9,772)
Noninterest income	10,029	43,623
Noninterest expense	(37,060)	(32,574)
Total increase (decrease) in net income	(74,046)	68,328
Net income	$ 411,960	$ 486,006

Interest Income

Total interest income for the year ended December 31, 2022 was $1.124 billion, an increase of $296.6 million, as compared to the same period of 2021. Total interest income for 2021 was $827.6 million, a decrease of $98.8 million, as compared to the same period of 2020. The increase in interest income in 2022 resulted from higher volume and yields of interest-earning assets as loans and investment securities repriced at higher rates. The decrease in interest income in 2021 resulted from lower yields on interest-earning assets as loans and investment securities repriced at lower interest rates. The average yield on interest-earning assets increased 55 basis points from 2021 to 2022 and decreased 37 basis points from 2020 to 2021.

The following table illustrates the impact of volume and yield changes on interest income:

Net Change in Interest Income	**Year Ended December 31,**	
(dollars in thousands)	**2021 - 2022**	**2020 - 2021**
Current year increase in average earning assets	$ 3,320,756	$ 1,437,697
Prior year average yield	2.28 %	2.65 %
Interest income variance attributed to change in volume	75,632	38,164
Current year average earning assets	39,658,268	36,337,512
Current year variance in average yield	0.55 %	(0.37)%
Interest income variance attributed to change in yield	221,002	(136,990)
Net change in interest income	$ 296,634	$ (98,826)

Interest Expense

Total interest expense for the year ended December 31, 2022 was $518.7 million, an increase of $339.5 million, as compared to the same period of 2021. Total interest expense for the year ended December 31, 2021 was $179.2 million, a decrease of $165.9 million, as compared to the same period of 2020.

The following table illustrates the impact of volume and rate changes on interest expense:

Net Change in Interest Expense	**Year Ended December 31,**	
(dollars in thousands)	**2021 - 2022**	**2020 - 2021**
Current year increase in average interest-bearing liabilities	$ 3,988,079	$ 1,412,171
Prior year average rate	0.52 %	1.05 %
Interest expense variance attributed to change in volume	20,849	14,827
Current year average interest-bearing liabilities	38,267,428	34,279,349
Current year variance in average rate	0.84 %	(0.53) %
Interest expense variance attributed to change in rate	318,648	(180,704)
Net change in interest expense	$ 339,497	$ (165,877)

The increase in interest expense in 2022 was the result of rising interest rates as existing debt matured and was replaced with debt at higher rates. During 2022, there were no opportunities to call and replace debt at lower rates. In contrast, during 2021 and 2020, the COVID-19 impact on interest rates provided the Bank opportunities to call and replace debt of $7.251 billion and $43.043 billion, respectively. The average rate reduction for the debt called in 2021 (i.e., the difference between the rates on the called bonds and the rates on the replacement bonds) was 22 basis points, resulting in interest expense savings of $64.3 million, net of debt extinguishment expense of $9.2 million, over the remaining life of the bonds of 3.77 years. For the year ended December 31, 2020, the average rate reduction for the called bonds was 63 basis points, resulting in interest expense savings of $954.8 million, net of debt extinguishment expense of $65.5 million, over the remaining life of the bonds of 4.27 years. Replacement bonds generally have terms similar to those of the bonds being replaced.

Net Interest Income

Net interest income decreased from 2021 to 2022 and increased from 2020 to 2021, as illustrated by the following table:

	AgFirst Analysis of Net Interest Income								
	Year Ended December 31,								
(dollars in thousands)	2022			2021			2020		
	Avg. Balance	Interest	Avg. Yield	Avg. Balance	Interest	Avg. Yield	Avg. Balance	Interest	Avg. Yield
Loans	$ 29,898,482	$ 919,416	3.08 %	$ 26,936,802	$ 696,450	2.59 %	$ 25,688,957	$ 765,690	2.98 %
Investments	9,527,200	199,809	2.10	9,287,243	131,067	1.41	8,992,490	158,756	1.77
Other	232,586	5,016	2.16	113,467	90	0.08	218,368	1,987	0.91
Total earning assets	39,658,268	1,124,241	2.83	36,337,512	827,607	2.28	34,899,815	926,433	2.65
Interest-bearing liabilities	38,267,428	(518,706)	1.36	34,279,349	(179,209)	0.52	32,867,178	(345,086)	1.05
Spread			1.47			1.76			1.60
Impact of capital	$ 1,390,840		0.06	$ 2,058,163		0.02	$ 2,032,637		0.07
Net Interest Income (NII) & NII to average earning assets		$ 605,535	1.53 %		$ 648,398	1.78 %		$ 581,347	1.67 %

Net interest income for the year ended December 31, 2022 was $605.5 million compared to $648.4 million for the same period of 2021, a decrease of $42.9 million or 6.61 percent. The net interest margin, which is net interest income as a percentage of average earning assets, was 1.53 percent and 1.78 percent in the current year and previous year, respectively, a decrease of 25 basis points. The decrease in net interest margin during 2022 resulted primarily from higher rates paid and volume of interest-bearing liabilities, partially offset by higher yields and volume of interest-earning assets. The increase in net interest margin during 2021 resulted primarily from lower rates paid on interest-bearing liabilities and higher earning asset volume, partially offset by refinancing of interest-earning assets at lower interest rates.

Provision for Loan Losses

AgFirst measures risks inherent in its portfolio on an ongoing basis and, as necessary, recognizes provision for loan loss expense so that appropriate reserves for loan losses are maintained. Loan loss provision was a net expense of $7.7 million, a net expense of $3.6 million and a net reversal of $6.2 million for the years ended December 31, 2022, 2021, and 2020, respectively.

The $7.7 million in net provision expense for the year ended December 31, 2022 consisted of $3.5 million of net provision expense for specific reserves and $4.3 million of net provision expense for general reserves. The net provision expense for 2022 primarily resulted from expenses in the field crops ($3.0 million), rural home loan ($1.9 million), and processing ($936 thousand) segments.

The $3.6 million in net provision expense for the year ended December 31, 2021 consisted of $3.5 million of net provision expense for specific reserves and $32 thousand of net provision expense for general reserves. The net provision expense for 2021 primarily resulted from expenses in the utilities ($2.0 million), processing ($896 thousand), and tree fruits and nuts ($816 thousand) segments.

The $6.2 million in net provision reversals for the year ended December 31, 2020 consisted of $7.3 million of net provision reversals for specific reserves, partially offset by $1.1 million of net provision expense for general reserves. The net provision reversals for 2020 primarily resulted from reversals in the nursery/greenhouse segment of $6.8 million, primarily one loan relationship, and in the field crops segment of $1.0 million, partially offset by provision expenses related to borrowers in the rural home loan segment of $1.5 million.

See *Allowance for Loan Losses* in the *Risk Management* section above and Note 3, *Loans and Allowance for Loan Losses*, in the Notes to the Financial Statements for further information.

Noninterest Income

Noninterest income for each of the three years ended December 31 is shown in the following table:

Noninterest Income	For the Year Ended December 31,			Increase/(Decrease) 2022/	2021/
(dollars in thousands)	2022	2021	2020	2021	2020
Loan fees	$ 14,034	$ 12,508	$ 11,326	$ 1,526	$ 1,182
Gains on investments, net	—	330	7,215	(330)	(6,885)
Gains (losses) on debt extinguishment	56	(9,204)	(65,475)	9,260	56,271
(Losses) gains on other transactions	(1,553)	2,745	11,433	(4,298)	(8,688)
Insurance premium refund	—	—	2,622	—	(2,622)
Patronage refunds from other Farm Credit institutions	20,595	18,597	14,444	1,998	4,153
Other noninterest income	10,577	8,704	8,492	1,873	212
Total noninterest income	$ 43,709	$ 33,680	$ (9,943)	$ 10,029	$ 43,623

Total noninterest income increased $10.0 million from 2021 to 2022 and increased $43.6 million from 2020 to 2021. Line item dollar variances greater than $2.0 million are discussed below.

Gains on investments decreased $6.9 million for the year ended December 31, 2021. As part of its normal portfolio management activities, the Bank periodically packages and sells amortizing securities that have relatively small remaining balances and correspondingly high administrative costs. During 2021, the Bank sold such securities with a par value of approximately $43.9 million and recognized net gains of $330 thousand compared to sales of securities with a par value of approximately $55.9 million and net gains of $7.2 million recorded during 2020. There were no sales of investment securities in 2022.

Debt issuance expense is amortized into interest expense over the contractual life of the underlying debt security. Debt is called to take advantage of favorable market interest rate changes. When debt securities are called prior to maturity, any unamortized issuance cost is expensed through losses on debt extinguishment. The amount of issuance cost expensed when a bond is called is dependent upon both the size and remaining maturity of the bond when called. Losses on called debt are more than offset by interest expense savings realized over the life of the replacement debt. There were no call options exercised on bonds for the year ended December 31, 2022 compared to $7.251 billion and $43.043 billion for the years ended December 31, 2021 and 2020, respectively. Despite not exercising any call options on bonds during 2022, the Bank repurchased and subsequently cancelled one discount note that resulted in $56 thousand in gains during 2022. Accordingly, losses on debt extinguishment decreased $9.3 million for the year ended December 31, 2022 compared to a decrease of $56.3 million for the year ended December 31, 2021. See *Net Interest Income* section above for further discussion.

For the year ended December 31, 2022, net gains on other transactions decreased $4.3 million. The decrease was primarily due to the decrease in the market value of certain nonqualified retirement plan trust assets of $4.4 million as a result of an increase in interest rates. For the year ended December 31, 2021, net gains on other transactions decreased $8.7 million. The decrease resulted primarily from $8.2 million in gains on the sale of Correspondent Lending loans of $289.4 million in 2020 to manage long-term risk during a period of market volatility.

In 2020, the Bank received insurance premium refunds of $2.6 million from the FCSIC. These refunds are nonrecurring and resulted from the assets of the FCSIC exceeding the secure base amount, as defined by the Farm Credit Act, at the end of the respective preceding year. No refunds were received in 2022 and 2021.

For the years ended December 31, 2022, and 2021, patronage refunds from other Farm Credit institutions increased by $2.0 million and $4.2 million, respectively. For both periods, the increase is primarily due to increases in patronage income received from entities outside of the District related to the increase in the Capital Markets portfolio for both years.

Noninterest Expenses

Noninterest expenses for each of the three years ended December 31 are shown in the following table:

Noninterest Expenses	**For the Year Ended December 31,**			**Increase/(Decrease)**	
(dollars in thousands)	**2022**	**2021**	**2020**	**2022/ 2021**	**2021/ 2020**
Salaries and employee benefits	$ 79,211	$ 76,604	$ 73,467	$ 2,607	3,137
Occupancy and equipment	7,302	7,080	7,494	222	(414)
Insurance Fund premiums	26,979	17,927	10,578	9,052	7,349
Purchased services	57,487	43,231	26,996	14,256	16,235
Data processing	32,520	25,965	18,954	6,555	7,011
Other operating expenses	26,082	21,678	22,009	4,404	(331)
(Gains) losses from other property owned	(1)	35	448	(36)	(413)
Total noninterest expenses	$ 229,580	$ 192,520	$ 159,946	$ 37,060	$ 32,574

Total noninterest expenses increased $37.1 million and $32.6 million in 2022 and 2021, respectively. Line item dollar variances greater than $2.0 million are discussed below.

Salaries and employee benefits expenses increased $2.6 million and $3.1 million for the years ended December 31, 2022 and 2021, respectively. The increases resulted primarily from $4.6 million and $1.9 million for 2022 and 2021, respectively, in higher salaries and incentives mainly due to normal salary administration and an increase in headcount of 36 and 19 for 2022 and 2021, respectively. In 2022, postretirement benefit expenses decreased $2.9 million due primarily to lower pension service cost whereas in 2021 higher postretirement benefit expenses of $2.2 million were due primarily to higher pension service costs.

Insurance Fund premiums increased $9.1 million and $7.3 million for the years ended December 31, 2022 and 2021, respectively, compared to the prior years. The increases resulted primarily from increases in the base annual premium rate to 20 basis points in 2022 from 16 basis points in 2021 and 8 basis points in the first half of 2020 and 11 basis points in the second half of 2020. The FCSIC Board makes premium rate adjustments, as necessary, to maintain the secure base amount which is based upon insured debt outstanding at System banks. The Insurance Fund premium rate is 18 basis points for at least the first half of 2023.

The Bank operates as the centralized service provider for the District Associations. As a result of significant technology initiatives, purchased services and data processing expenses were elevated during 2022 and 2021. Purchased services increased $14.3 million and $16.2 million for the years ended December 31, 2022 and 2021, respectively primarily from higher contractor expenses and professional fees incurred for the technology initiatives. Data processing costs increased $6.6 million and $7.0 million for the years ended December 31, 2022 and 2021, respectively. The increases for both periods resulted primarily from higher software and hardware depreciation and maintenance costs as a result of new systems purchased with the technology modernization initiatives. The Bank's investment in new technology is expected to be rationalized, over time, through efficiencies gained at District Associations.

The increase of $4.4 million in other operating expenses in 2022 is primarily due to higher travel expenses of $1.4 million when compared to the prior year when pandemic restrictions were in place and an increase in public and member relations of $1.3 million.

CAPITAL

Capital serves to support future asset growth and investment in new products and services, and to provide protection against credit, interest rate, and other risks, as well as operating losses. A sound capital position is critical to provide protection to investors in Systemwide Debt Securities and to ensure long-term financial success.

The AgFirst Capitalization Plan (the "Plan") approved by the Bank's Board of Directors establishes guidelines to ensure that adequate capital is maintained for continued financial viability, to provide for growth necessary to meet the needs of members/borrowers, and to ensure that all stockholders are treated equitably. The Bank's capital objectives are considered adequate to support inherent risk.

Total shareholders' equity at December 31, 2022 was $1.452 billion, compared to $2.303 billion and $2.478 billion at December 31, 2021, and 2020, respectively. The decrease in 2022 of $851.2 million primarily resulted from an increase in unrealized losses on investments of $1.016 billion due to an increase in market interest rates, which decreased the fair value of existing available-for-sale fixed-rate investment securities, cash patronage declared of $212.9 million, and redemption of perpetual preferred stock of $32.5 million at par, partially offset by an increase in retained earnings from net income of $412.0 million. The decrease in 2021 of $175.1 million primarily resulted from cash patronage declared of $463.6 million, a decrease in unrealized gains on investments of $168.5 million due to an increase in interest rates, $16.7 million of net capital stock retired, and a net impact from repurchase of perpetual preferred stock of $12.0 million (see below), partially offset by an increase in retained earnings from net income of $486.0 million

During 2021, the Bank repurchased, through privately negotiated transactions, and subsequently cancelled, Class B Perpetual Non-Cumulative Fixed-to-Floating Rate Subordinated Preferred Stock with par value totaling $16.8 million. The repurchase transactions resulted in an average discounted price of 71.40 percent of par value. The net effect of the repurchases on shareholders' equity was to reduce perpetual preferred stock outstanding by $16.8 million and to increase additional paid-in capital by $4.8 million.

The Bank's patronage declared in 2022, 2021, and 2020 was based on paying Associations and OFIs a dividend equal to 75 basis points relative to their average Direct Note balance and paying a dividend to participants in Association capitalized participation pools in an amount equal to each Association's respective pool's net income. During 2022 and 2021, the patronage related to eligible Capital Markets participations was 100 basis points, an increase of 25 basis points as compared to 2020. Also, favorable earnings, strong credit quality and modest balance sheet growth in recent years have resulted in Bank capital levels that were above target levels. After considering current capital levels and projected capital needs, during 2022, the Bank's Board of Directors declared a special patronage totaling $123.0 million in the form of allocated retained earnings. In 2021 and 2020, special patronage in the form of cash was paid totaling $274.0 million and $218.0 million, respectively. Cash patronage is paid in the year following declaration, primarily in January.

The Associations are required to maintain ownership in the Bank in the form of Class B and Class C stock. At December 31, 2022, 2021, and 2020, the Associations' minimum stock requirement was 5.00 percent, 5.51 percent, and 6.29 percent, respectively, of risk-adjusted Direct Note balances. The Bank's capital stock and participation certificates totaled $300.5 million at December 31, 2022, compared to $299.1 million and $311.9 million at December 31, 2021 and 2020, respectively. The net increase of $1.4 million in 2022 was due to the issuance of stock patronage to another System bank of $4.5 million, partially offset by the retirement of Association owned stock. The net decrease of $12.8 million in 2021 was due to the retirement of $16.7 million of Association owned stock for 2021 through stock equalization, partially offset by the issuance of stock patronage to another System bank.

See Note 7, *Shareholders' Equity*, in the Notes to the Financial Statements and the *Additional Required Regulatory Capital Disclosures* section for further information.

Regulatory Ratios

The Bank's regulatory ratios (calculated using a three-month average daily balance) are shown in the following table:

	Regulatory Minimum, Including Buffer*	AgFirst Ratios as of December 31,		
		2022	2021	2020
Permanent Capital Ratio	7.00%	15.34 %	18.73 %	19.39 %
Common Equity Tier 1 (CET1) Capital Ratio	7.00%	15.32 %	18.47 %	18.99 %
Tier 1 Capital Ratio	8.50%	15.32 %	18.70 %	19.36 %
Total Regulatory Capital Ratio	10.50%	15.46 %	18.85 %	19.51 %
Tier 1 Leverage Ratio**	5.00%	6.09 %	6.87 %	7.09 %
Unallocated Retained Earnings (URE) and URE Equivalents	1.50%	5.37 %	6.09 %	6.18 %

** Includes full capital conservation buffers.*
*** The Tier 1 Leverage Ratio must include a minimum of 1.50% of URE and URE Equivalents.*

The FCA sets minimum regulatory capital adequacy requirements for System banks and associations that ensure that the System's capital requirements are comparable with the Basel III framework and the standardized approach of federal banking regulatory agencies. The requirements are based on regulatory ratios as defined by the FCA and include common equity tier 1 (CET1) capital, tier 1 capital, total capital, and tier 1 leverage ratios. The tier 1 leverage ratio must include a minimum unallocated retained earnings (URE) and URE equivalents component. The permanent capital ratio required under the Farm Credit Act remains in effect.

The permanent capital, CET1, tier 1, and total capital ratios are calculated by dividing the three-month average daily balance of the capital numerator, as defined by the FCA, by a risk-adjusted asset base. Risk-adjusted assets refer to the total dollar amount of the institution's assets adjusted by an appropriate credit conversion factor as defined by regulation. Generally, higher credit conversion factors are applied to assets with more inherent risk. The tier 1 leverage ratio and URE and URE equivalents component of the tier 1 leverage ratio do not incorporate any risk-adjusted weighting of assets. These ratios are calculated by dividing the three-month average daily balance of the capital numerator, as defined by the FCA, by the three-month average daily balance of total assets adjusted for regulatory deductions.

For all periods presented, AgFirst exceeded minimum regulatory standards for all of the ratios. During 2022, the Bank's Board of Directors reduced the target tier 1 leverage ratio target levels from 6.00% to 5.50% to better reflect the level at which the Board considers the Bank to be sufficiently capitalized. The decline in regulatory ratios for both 2022 and 2021 was primarily driven by an increase in assets and significant cash special patronage payments in 2020 and 2021.

See the *Additional Required Regulatory Capital Disclosures* section for further information.

THE DISTRICTWIDE YOUNG, BEGINNING, AND SMALL (YBS) FARMERS AND RANCHERS PROGRAM

The District is committed to providing sound and dependable credit to young, beginning, and small (YBS) farmers and ranchers. Because of the unique needs of these individuals, and their importance to the future growth of the Associations, the Associations have established annual marketing goals to increase market shares of loans to YBS farmers. Specific marketing plans have been developed to target these groups, and resources have been designated to help ensure YBS borrowers' access to a stable source of credit. AgFirst and the District Associations recognize that YBS farmers are vitally important to the future of agriculture and are committed to continue offering programs to help educate, assist, and provide quality financial services to YBS farmers.

The FCA regulatory definitions for YBS farmers and ranchers are as follows:

Young Farmer – A farmer, rancher, or producer or harvester of aquatic products who was age 35 or younger as of the date the loan was originally made.
Beginning Farmer – A farmer, rancher, or producer or harvester of aquatic products who had 10 years or less farming or ranching experience as of the date the loan was originally made.
Small Farmer – A farmer, rancher, or producer or harvester of aquatic products who normally generated less than $250 thousand in annual gross sales of agricultural or aquatic products at the date the loan was originally made.

It is important to note that, due to the regulatory definitions, a farmer/rancher may be included in multiple categories if the definition was met for each category.

The following table summarizes information regarding the combined District's loans outstanding to Young and Beginning Farmers and Ranchers as of December 31, 2022:

Young and Beginning Farmers and Ranchers
Number/Volume of Loans Outstanding
(dollars in thousands)

Category	Number of Loans	Percent of Total	Volume Outstanding	Percent of Total
1. Total loans and commitments outstanding at year-end	165,688		$ 42,081,362	
2. Young farmers and ranchers	33,061	19.95 %	$ 4,512,573	10.72 %
3. Beginning farmers and ranchers	57,874	34.93 %	$ 8,728,870	20.74 %

The following table summarizes information regarding the combined District's loans outstanding to Small Farmers and Ranchers as of December 31, 2022:

Small Farmers and Ranchers
Number/Volume of Loans Outstanding by Loan Size
(dollars in thousands)

Number/Volume Outstanding	$0-$50,000	$50,001-$100,000	$100,001-$250,000	$250,001 and greater
1. Total number of loans and commitments outstanding at year-end	73,922	29,605	33,684	28,477
2. Total number of loans to small farmers and ranchers	52,573	19,140	19,928	9,956
3. Number of loans to small farmers and ranchers as a % of total number of loans	71.12 %	64.65 %	59.16 %	34.96 %
4. Total loan volume outstanding at year-end	$ 1,455,510	$ 2,147,080	$ 5,381,389	$ 33,097,383
5. Total loan volume to small farmers and ranchers	$ 1,044,601	$ 1,381,468	$ 3,137,873	$ 5,152,499
6. Loan volume to small farmers and ranchers as a % of total loan volume	71.77 %	64.34 %	58.31 %	15.57 %

The following table summarizes information regarding the combined District's new loans made to Young and Beginning Farmers and Ranchers for the year ended December 31, 2022:

Young and Beginning Farmers and Ranchers
Gross New Business During 2022, Number/Volume of Loans
(dollars in thousands)

Category	Number of Loans	Percent of Total	Volume Outstanding	Percent of Total
1. Total gross new loans and commitments made during 2022.	43,391		$ 16,868,837	
2. Total loans and commitments made during 2022 to young farmers and ranchers.	8,899	20.51 %	$ 1,507,894	8.94 %
3. Total loans and commitments made during 2022 to beginning farmers and ranchers.	14,638	33.74 %	$ 2,735,422	16.22 %

The following table summarizes information regarding the combined District's new loans made to Small Farmers and Ranchers for the year ended December 31, 2022:

Small Farmers and Ranchers
Gross New Business by Loan Size, Number/Volume of Loans
(dollars in thousands)

Number/Volume	$0- $50,000	$50,001 - $100,000	$100,001- $250,000	$250,001 and greater
1. Total number of new loans and commitments made during 2022	16,347	8,044	9,297	9,703
2. Total number of loans made to small farmers and ranchers during 2022	12,155	4,909	5,049	2,780
3. Number of loans to small farmers and ranchers as a % of total number of loans	74.36 %	61.03 %	54.31 %	28.65 %
4. Total gross loan volume of all new loans and commitments made during 2022	$ 420,897	$ 606,925	$1,558,339	$14,282,676
5. Total gross loan volume to small farmers and ranchers	$ 302,216	$ 365,125	$ 817,685	$1,516,404
6. Loan volume to small farmers and ranchers as a % of total gross new loan volume	71.80 %	60.16 %	52.47 %	10.62 %

COMMITMENTS AND CONTINGENCIES

On the basis of information presently available, management and legal counsel are of the opinion that the ultimate liability, if any, from legal actions pending against AgFirst would be immaterial in relation to the financial position of AgFirst. Refer to Note 11, *Commitments and Contingencies*, in the Notes to the Financial Statements for additional information.

REGULATORY MATTERS

On April 14, 2022, the FCA approved a final rule that amends certain regulations to address changes in accounting principles generally accepted in the United States. Such changes reflect the Current Expected Credit Losses (CECL) methodology that will replace the incurred loss methodology upon adoption. Credit loss allowances related to loans, lessor's net investments in leases, and held-to-maturity debt securities would be included in a System institution's Tier 2 capital up to 1.25 percent of the System institution's total risk weighted assets. Credit loss allowances for available-for-sale debt securities and purchased credit impaired assets would not be eligible for inclusion in a System institution's Tier 2 capital. The regulation does not include a transition phase-in period for the CECL day 1 cumulative effect adjustment to retained earnings on a System institution's regulatory capital ratios. In addition, the regulation does not include an exclusion for the CECL day 1 cumulative effective adjustment from the "safe harbor" deemed prior approval provision. The rule became effective on January 1, 2023.

On August 26, 2021, the FCA issued a proposed rule to revise its regulatory capital requirements to define and establish risk-weightings for High Volatility Commercial Real Estate (HVCRE) by assigning a 150 percent risk-weighting to such exposures, instead of the current 100 percent. The proposed rule would ensure that the FCA's rule remains comparable with the capital rule of other federal banking regulatory agencies and recognizes the increased risk posed by HVCRE exposures. The public comment period ended on January 24, 2022.

On June 30, 2021, the FCA issued an advance notice of proposed rulemaking (ANPRM) that seeks public comments on whether to amend or restructure the System bank liquidity regulations. The purpose of this advance notice is to evaluate the applicability of the Basel III framework to the Farm Credit System and gather input to ensure that System banks have the liquidity to withstand crises that adversely impact liquidity and threaten their viability. The public comment period ended on November 27, 2021.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

Please refer to Note 2, *Summary of Significant Accounting Policies*, in the Notes to the Financial Statements for a comprehensive listing of recently issued accounting pronouncements.

The following Accounting Standards Update (ASU) was issued by the Financial Accounting Standards Board (FASB):

Summary of Guidance	Adoption and Potential Financial Statement Impact
Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments	
• Replaces multiple existing impairment standards by establishing a single framework for financial assets to reflect management's estimate of current expected credit losses (CECL) over the entire remaining life of the financial assets. • Changes the present incurred loss impairment guidance for loans to an expected loss model. • Modifies the other-than-temporary impairment model for debt securities to require an allowance for credit impairment instead of a direct write-down, which allows for reversal of credit impairments in future periods based on improvements in credit quality. • Eliminates existing guidance for purchased credit impaired (PCI) loans, and requires recognition of an allowance for expected credit losses on these financial assets. • Modifies and enhances financial instrument disclosures. • Eliminates the accounting guidance for TDRs by creditors in Subtopic 310-40, Receivables—Troubled Debt Restructurings by Creditors, while enhancing disclosure requirements for certain loan refinancings and restructurings by creditors when a borrower is experiencing financial difficulty. Specifically, rather than applying the recognition and measurement guidance for TDRs, an entity must apply the loan refinancing and restructuring guidance in paragraphs 310-20-35-9 through 35-11 to determine whether a modification results in a new loan or a continuation of an existing loan. • Requires a cumulative-effect adjustment to retained earnings as of the beginning of the reporting period of adoption. • Effective for fiscal years beginning after December 15, 2022, and interim periods within those fiscal years.	• The Bank has established a cross-discipline governance structure utilizing common guidance developed across the Farm Credit System. • The Bank has completed development of PD/LGD model and independently validated the model for conceptual soundness. The implementation of processes, internal controls and policy updates are complete. • The Bank macroeconomic forecast includes a weighted selection of the Moody's baseline, upside 10th percentile and downside 90th percentile scenarios. • The guidance was adopted on January 1, 2023 and did not have a material impact on the Bank's financial statements.

Additional Disclosure Required by Farm Credit Administration Regulations

Description of Business

Descriptions of the territory served, persons eligible to borrow, types of lending activities engaged in, financial services offered and related Farm Credit organizations are incorporated herein by reference to Note 1, *Organization and Operations,* to the Financial Statements included in this Annual Report to shareholders.

The description of significant developments that had or could have a material impact on earnings or interest rates to borrowers, acquisitions or dispositions of material assets, material changes in the manner of conducting the business, seasonal characteristics and concentrations of assets, if any, is incorporated in *Management's Discussion & Analysis of Financial Condition & Results of Operations* included in this Annual Report to shareholders.

Unincorporated Business Entities

The Bank held no equity investment at December 31, 2022 in Unincorporated Business Entities (UBEs).

Description of Property

The following table sets forth certain information regarding the properties owned by the Bank at December 31, 2022, all of which are located in Columbia, South Carolina:

Location	Description
1115 Calhoun Street	Bank operations facility
1901 Main Street	Bank office building and adjacent parking facility, partially leased to tenants

Legal Proceedings

Information, if any, to be disclosed in this section is incorporated herein by reference to Note 11, *Commitments and Contingencies,* to the Financial Statements included in this Annual Report to shareholders.

Description of Capital Structure

Information to be disclosed in this section is incorporated herein by reference to Note 7, *Shareholders' Equity,* to the Financial Statements included in this Annual Report to shareholders.

Description of Liabilities

The description of liabilities and contingent liabilities to be disclosed in this section is incorporated herein by reference to Notes 2, 6, 9, and 11 to the Financial Statements included in this Annual Report to shareholders.

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

Management's Discussion & Analysis of Financial Condition & Results of Operations, which appears in this Annual Report to shareholders and is to be disclosed in this section, is incorporated herein by reference.

Senior Officers

The following represents certain information regarding the senior officers of the Bank.

The chief executive officer and all other senior officers of the Bank, together with their length of service at their present position, as well as positions held currently and during the last five years, are as follows:

Name and Title	Time in Position	Prior Experience	Other Business Interests
Leon T. Amerson, *President and Chief Executive Officer*	10.5 years		Member on the Finance Committee and Risk Management Committee of the Presidents Planning Committee of the Farm Credit System; Member of the Executive Council of the National Council of Farmer Cooperatives; Member of the AgFirst Plan Sponsor Committee and the AgFirst/FCBT Plan Sponsor Committee.
William E. Brown, *Executive Vice President and Chief Credit Officer*	5.5 years		
James A. Bumgarner, *Executive Vice President and Chief Administrative Officer*	1.25 years	Chief Stakeholder Relationship Officer May 2021 to October 2021, Vice President and Director of Association Relationships July 2016 to May 2021	Board Member of the Farm Credit Captive Insurance Company.
Stephen F. Ciambrone, *Executive Vice President and Chief Information Officer*	3.25 years	Director of Information Technology June 2019 to September 2019, Managing Director at CitiGroup 2008 to 2018	
Stephen Gilbert, *Executive Vice President and Chief Financial Officer*	5.75 years		Member of the Farm Credit System Disclosure Committee; Appointed Member and Chair of the AgFirst/FCBT Plan Fiduciary Committee.
Frances S. Griggs, *Executive Vice President and General Counsel*	5.75 years		Chairperson of the Girl Scouts of South Carolina – Mountains to Midlands.
Darrick T. Paul, *Executive Vice President and Chief Human Resources Officer*	0.25 years	Healthcare HR and Talent Consultant January 2021 to November 2022, Chief People Officer Medical University of South Carolina Health August 2016 to January 2021	Board Member of Hollywood (SC) Animal Charities.
Juan Silvera, *Executive Vice President and Chief Marketing Officer*	1.25 years	Executive Director, Marketing, Brand and Product Management 2020 to October 2021, Chief Marketing Officer at Rabobank N.A. from 2016 to 2020	
Chad E. Toney, *Executive Vice President and Chief Information Security Officer*	1.5 years	Vice President, Infrastructure and Operations July 2017 to June 2021	Member of Evanta Governing Body of the Charlotte Information Security Officer community.
Daniel E. LaFreniere, *Executive Vice President and Chief Audit Executive*	9.5 years		

The total amount of compensation earned by the Chief Executive Officer (CEO) and the senior officers and other highly compensated employees (HCE) as a group during the years ended December 31, 2022, 2021, and 2020, is as follows:

Name of Individual or Number in Group	Year	Salary	Incentives	Deferred Comp.	Change in Pension Value *(e)*	Perq./ Other*	Total
Leon T. Amerson	2022	$ 932,350	$ 867,055	$ 39,890	$ (1,650,482)	$ 29,379	$ 218,192
Leon T. Amerson	2021	$ 896,506	$ 892,054	$ 44,173	$ 41,659	$ 25,774	$ 1,900,166
Leon T. Amerson	2020	$ 862,033	$ 984,714	$ 35,844	$ 1,197,297	$ 27,993	$ 3,107,881
10 Officers/HCE *(a) (b)*	2022	$ 3,019,657	$ 2,592,040	$ 201,911	$ (338,228)	$ 374,996	$ 5,850,376
11 Officers/HCE *(a) (c)*	2021	$ 3,302,532	$ 2,068,677	$ 238,986	$ 93,210	$ 1,313,267	$ 7,016,672
8 Officers/HCE *(a) (d)*	2020	$ 2,815,094	$ 2,314,545	$ 174,446	$ —	$ 569,866	$ 5,873,951

* *For all years, includes company contributions to 401(k) plan (see Note 9, Employee Benefit Plans, to the Financial Statements), group life insurance premiums, spousal travel and Bank-provided automobile. For 2022, also includes a sign-on payment of $52,500 to a senior officer who joined the Bank in 2022. For 2021, also includes payment to a senior officer who left the Bank in 2021 of $939,206 for separation pay and certain other compensation/benefits, and payment to one officer of accrued annual leave of $883. For 2020, also includes a sign-on payment of $280,000 to a highly compensated employee who joined the Bank in 2020.*

(a) *Disclosure of information on the total compensation paid to any senior officer, or to any other individual included in the aggregate, for the years presented is available to shareholders upon request.*

(b) *For 2022, includes nine senior officers and one highly compensated employee. Includes one senior officer who joined the Bank during 2022.*

(c) *For 2021, includes ten senior officers and one highly compensated employee. Includes two senior officers who left the Bank during 2021.*

(d) *For 2020, includes seven senior officers and one highly compensated employee.*

(e) *The changes in pension values as reflected in the table above resulted primarily from changes in the actuarial assumptions for discount rate and mortality and an additional year of benefit accrual. See further discussion in Note 9, Employee Benefit Plans, of the Financial Statements.*

Pension Benefits Table
As of December 31, 2022

Name of Individual or Number in Group	Year	Plan Name	Number of Years Credited Service	Actuarial Present Value of Accumulated Benefits	Payments During 2022
CEO:					
Leon T. Amerson	2022	AgFirst Farm Credit Retirement Plan	36.75	$ 3,029,019	$ —
Leon T. Amerson	2022	AgFirst Farm Credit Bank Supplemental Retirement Plan	36.75	5,878,691	—
				$ 8,907,710	$ —
Senior Officers and Highly Compensated Employees:					
1 Officer, excluding the CEO	2022	AgFirst Farm Credit Retirement Plan	22.58	$ 1,144,352	$ —
				$ 1,144,352	$ —

Executive Incentive Compensation Plan

In addition to a base salary, certain named senior officers may earn additional compensation under the Bank's Executive Incentive Plan, which has a short-term and a long-term component. Participation in the plan is at the sole discretion of the CEO or in the case of the CEO at the sole discretion of the Board of Directors. The objectives of this plan are to provide a market-competitive financial rewards package to executives, provide incentive for the achievement of the AgFirst short- and long-term business objectives and to provide the Bank the ability to attract and retain key executives. The plan's payments are based upon the Bank's achievement of certain performance factors including, but not limited to, capital adequacy, asset quality, profitability, liquidity, and sensitivity, and the senior officers' overall performance achievement as determined by an individual performance rating. Short-term incentive awards are shown in the year earned and payments are made in the first quarter of the following year.

The long-term component of the plan is subject to forfeiture based upon AgFirst's performance during the three-year performance period immediately following the plan year. Specifically, the long-term award for a particular plan year will be reduced by an amount equal to one-third of the original award for each subsequent year during the three-year performance period in which any one of the performance thresholds for capital adequacy or earnings is not achieved.

Long-term incentive award amounts are shown in the year accrued and are vested over a period of time composed of the plan year and the performance period subsequent to the end of the plan year. Incentive awards are forfeited if the participant fails to remain employed until the end of the performance period subsequent to the end of the plan year, unless the end of employment is due to the participant's death or disability, or the Board of Directors, in its sole discretion, determines that the participant should be paid all or a portion of the incentive awards. Effective with the 2021 plan year, the participant is eligible to receive a prorated long-term incentive award if the end of employment is due to retirement and the participant remained employed for at least one year of the performance period.

Retirement and Deferred Compensation Plans

The Bank's compensation programs include retirement and deferred compensation plans designed to provide income following an employee's retirement. Although retirement benefits are paid following an employee's retirement, the benefits are earned while employed. The objective of the Bank is to offer benefit plans that are market competitive and aligned with the Bank's strategic objectives. The plans are designed to enable the Bank to proactively attract, retain, recognize and reward a highly skilled, motivated and diverse staff that supports the Bank's mission and that allows the Bank to align the human capital needs with the Bank's overall strategic plan.

Employees hired prior to January 1, 2003 participate in the AgFirst Farm Credit Retirement Plan. Employees are eligible to retire and begin drawing unreduced pension benefits at age 65 or when years of credited service plus age equal "85" once age 55 is reached. Upon retirement, annual payout is equal to 2 percent of the highest three years' average compensation times years of credited service, subject to the Internal Revenue Code limitations. For purposes of determining the payout, "average compensation" is defined as regular salary (i.e., does not include incentive awards compensation). At the election of the retiree, benefits are paid based upon various annuity terms and/or on a lump sum basis. Benefits under the plan are not subject to an offset for Social Security.

Employees participate in the Farm Credit Benefits Alliance 401(k) Plan, a qualified 401(k) defined contribution plan which has an employer matching contribution determined by the employee's date of hire. For employees hired on or prior to December 31, 2002, the Bank contributes $0.50 for each $1.00 of the employee's first 6.00 percent of contribution (based on total compensation) up to the maximum employer contribution of 3.00 percent of total compensation. For employees hired on or after January 1, 2003, the Bank contributes $1.00 for each $1.00 of the employee's first 6.00 percent of contribution up to the maximum employer contribution of 6.00 percent of total compensation. Beginning in 2015, contributions include an additional 3.00

percent of eligible compensation for employees hired on or after January 1, 2003. Employee deferrals are not to exceed the maximum deferral as determined and adjusted by the Internal Revenue Service.

Senior officers and other highly compensated employees participate in the Farm Credit Benefits Alliance Nonqualified Supplemental 401(k) Plan, a nonqualified deferred compensation plan that allows certain key employees to defer compensation and which restores the benefits limited in the qualified 401(k) plan as a result of restrictions in the Internal Revenue Code. The plan also includes a provision for discretionary contributions to be made by the Bank.

Chief Executive Officer

Mr. Amerson participates in the AgFirst Farm Credit Retirement Plan, as described above.

Mr. Amerson participates in the AgFirst Farm Credit Bank Supplemental Retirement Plan, a nonqualified supplemental executive retirement plan. Benefits that would have accrued in the qualified defined benefit retirement plan in the absence of Internal Revenue Code limitations are made up through the nonqualified supplemental executive retirement plan. At the election of the retiree, benefits are paid based upon various annuity terms.

Mr. Amerson participates in the Farm Credit Benefits Alliance 401(k) Plan and the Farm Credit Benefits Alliance Nonqualified Supplemental 401(k) Plan, as described above.

Senior Officers

One senior officer participates in the AgFirst Farm Credit Retirement Plan, as described above.

Senior officers participate in the Farm Credit Benefits Alliance 401(k) Plan and the Farm Credit Benefits Alliance Nonqualified Supplemental 401(k) Plan, as described above.

Additionally, senior officers as well as all employees are reimbursed for all direct travel expenses incurred when traveling on Bank business. A copy of the travel policy is available to shareholders upon written request.

Bank compensation plans are reviewed annually by the Board of Directors' Compensation Committee.

AgFirst Farm Credit Bank Board of Directors

The following represents the Board of Directors as of December 31, 2022:

Name	Current Term Expires	Principal Occupation, Board Committees and Other Affiliations
Michael T. Stone Age: 51 Board Appointment: 2015	12/2022*	**Principal Occupation:** Owner/operator of P & S Farms, Inc. and Bo Stone Farms, LLC, diverse farming operations. **Board Committees:** Chairman of the Board; Chair of the Coordinating Committee and ex-officio member of all Board Committees **Other Affiliations:** Board member: AgCarolina Farm Credit, ACA; Southeastern Health hospital; The Farm Credit Council, and Farm Credit Council Services. Appointed member and Chair: AgFirst Plan Sponsor Committee; AgFirst/FCBT Plan Sponsor Committee.
William T. Robinson Age: 55 Board Appointment: 2016	12/2023	**Principal Occupation:** Owner/operator of Robinson Family Farm, which consists of corn, cattle, and timber. Owner/operator of MMR Consultants, LLC, a business consulting firm specializing in utility and industrial market segments. Former Executive Director for the SEFA Group, an engineering, construction, and transportation company. Retired from the Department of Treasury and Corporate Financial Planning at Santee Cooper. **Board Committees:** Vice Chairman of the Board: Coordinating, Governance and Compensation Committees **Other Affiliations:** Board member: AgSouth Farm Credit, ACA; Tri-County Electric Cooperative; Member: Farm Credit System Audit Committee.
Gary L. Baldosser **Age**: 56 Board Appointment: 2020	12/2023	**Principal Occupation:** Owner/operator Baldosser Farms, Inc., a cow/calf and row crop operation and Garbec Farms, a family land holding entity. **Board Committees:** Audit Committee **Other Affiliations:** Board member: AgCredit Agricultural Credit Association; Sunrise Co-op Clyde Condominium Association, a condominium grain storage association; Trustee: Tri-Grain, LLC, a family land holding entity; Member: Bloc-B, LLC, a family land holding entity.

Jack W. Bentley, Jr. Age: 65 Board Appointment: 2019	12/2022*	**Principal Occupation:** Owner/operator A&J Dairy, a dairy, beef, pasture, crop and timberland operation. **Board Committees:** Audit Committee **Other Affiliations:** Board member: AgFirst Plan Sponsor Committee; Chairman - AgGeorgia Farm Credit, ACA; Chairman - USDA Farm Service Agency; American Dairy Association; Lone Star Milk Producers and Wilkes County Farm Bureau.
Jenny R. Black Age: 48 Board Appointment: 2018	12/2023	**Principal Occupation:** Certified Project Manager and owner/operator Jenny Black Consulting, LLC, an information technology consulting company. Serves as manager for citrus and agricultural operations of Ridge Investments, LLC, Black & Myers Properties and BHB Holdings, LLC. **Board Committees:** Coordinating Committee and Chair of the Risk Policy Committee **Other Affiliations:** Board member: Farm Credit of Central Florida, ACA; The Farm Credit Council; Polk County Florida 4-H Foundation, a youth agricultural organization; Volunteers in Service to the Elderly, a non-profit whose mission is to assist the elderly with independent living; All Saints Academy Independent School.
Sherry E. Bowden Age: 61 Board Appointment: 2020	12/2023	**Principal Occupation:** Retired CFO State Street Corporation, a financial services organization; Certified public accountant and certified personal property appraiser. **Board Committees:** Coordinating Committee and Chair of Audit Committee (designated financial expert) **Other Affiliations:** Member: South Carolina Association of CPAs, National Society of Accountants for Cooperatives.
William K. Jackson Age: 67 Board Appointment: 2013	12/2024	**Principal Occupation:** Partner in Jackson Farms, a dairy operation with other farming interests. President of Jackson Farms 2, LLC, a small dairy processing facility that bottles milk, makes ice cream, and operates a convenience store. President of Jackson Farms 3, LLC and Jackson Farms Limited Partnership, which are involved in the production of natural gas. **Board Committees:** Compensation and Coordinating Committees and Chair of Governance Committee **Other Affiliations:** Board member: Horizon Farm Credit, ACA; The Farm Credit Council; President of Fayette County Agricultural Improvement Association Board, a local county fair.
Dwain K. Lanier **Age**: 65 Board Appointment: 2022	12/2025	**Principal Occupation:** Managing Partner of Pareto Consulting LLC, a performance consulting business. President of Aspire Higher LLC, a real estate rental company. Retired Vice President of Operational and Regulatory Assurance for Tennessee Valley Authority, a federally owned electric utility company. Former President of MEMCO Barge Lines, a barge company. Former Vice President of Progress Energy, an electric utility company. **Board Committees:** Risk Policy Committee **Other Affiliations:** Board member: Southeast Raleigh YMCA, a non-profit youth and community organization. Accounting Advisory Board, Poole College of Management, N.C. State University.
Fred R. Moore, Jr. Age: 70 Board Appointment: 2014	12/2025	**Principal Occupation:** President of Fred R. Moore & Son, Inc. d/b/a Collins Wharf Sod, a turf and grain operation. Partner of F&E Properties, LLC, a rental business. Partner of F&E Moore Properties, LLC, a land holding partnership. **Board Committees:** Coordinating and Governance Committees and Chair of Board Compensation Committee **Other Affiliations:** Board member: Horizon Farm Credit, ACA; Wicomico Soil Conservation District; Wicomico County Farm Bureau; Allen Volunteer Fire Company.

Michael W. Patrick Age: 57 Board Appointment: 2020	12/2023	**Principal Occupation:** Partner in Patrick Farms Joint Venture, a cotton, corn, soybean and timber operation. **Board Committees:** Compensation and Governance Committees **Other Affiliations:** Board member: First South Farm Credit, ACA; Commissioner: Madison County Soil and Water Commission; Member: Madison County USDA FSA County Committee.
John Whitworth Player Age: 56 Board Appointment: 2022	12/2025	**Principal Occupation:** Owner/operator of J. Whit Player Farms, a farming operation. Owner/operator of Players Stoney Run Farms, a farming operation. Vice President and part owner of St. Charles Gin Company, a cotton ginning company. Forestry Technician, South Carolina Forestry Commission, a state agency overseeing forestry management. **Board Committees:** Risk Policy Committee **Other Affiliations:** Board member: ArborOne, ACA; Carolina Cotton Growers Cooperative, a cotton marketing organization; SC Boll Weevil Eradication Program, an agricultural organization. Part Owner: Canoe Slough LLC, a recreational land holding entity.
Thomas E. Porter, Jr. Age: 69 Board Appointment: 2019	12/2022	**Principal Occupation:** President of Porter Farms, Inc., a farming operation consisting of a sow farrow to wean hog operation, poultry, pullet houses and breeder hen houses, cow/calf operation, and greenhouses. Manages the Farm at Brush Arbor, LLC, an agritourism business on the farm. **Board Committees:** Risk Policy Committee **Other Affiliations:** Board member: Cabarrus County Ag Advisory, an agricultural trade and promotion organization; Union Power Cooperative; Three Rivers Land Trust; Cabarrus County Farm Bureau (president); Cabarrus County Extension Advisory (chairman); Cabarrus County Soil and Water Conservation District; Water Committee for the American Farm Bureau; Food Innovation Committee; Commissioners Circle North Carolina Commissioner of Agriculture; Member: Carolina Farm Credit, ACA.
David L. Richesin **Age**: 56 Board Appointment: 2022	12/2025	**Principal Occupation:** Owner/operator of Cherry Brook Farm, a farming operation. **Board Committees:** Audit Committee **Other Affiliations:** Board member: Chairman - River Valley AgCredit, ACA; Board member- London County Farm Bureau; Tennessee Farm Bureau Federation, a lobbying organization; Tennessee Farmers Service, an accounting and tax services organization; Tennessee Rural Health, a health insurance service organization; Tennessee Farmers Mutual, an insurance provider.
Ellis W. Taylor **Age**: 53 **Board Appointment:** 2012	12/2023	**Principal Occupation:** Owner/operator of Mush Island Farms, LLC, a row crop operation. Part owner of Roanoke Cotton Company, LLC, which operates cotton gins and a warehouse. **Board Committees:** Audit Committee **Other Affiliations:** Board member: AgCarolina Farm Credit, ACA, and Chair of Audit Committee; Northampton County Farm Bureau; Northampton County Voluntary Ag District, Federal Farm Credit Banks Funding Corporation.

* These Directors were re-elected for a four-year term beginning January 1, 2023.

The following new director will also serve four-year term beginning January 1, 2023:

Name	Current Term Expires	Principal Occupation, Board Committees and Other Affiliations
Alfred W. Stephens, Jr. **Age**: 55 **Board Appointment**: 2023	12/2026	**Principal Occupation:** Owner/operator of Stephens Dairy Farm, a dairy and beef cow/calf operation and farming operation. **Board Committees:** Compensation and Governance Committees **Other Affiliations:** Board member: Farm Credit of the Virginias; Wythe/Bland DHIA, a production, recordkeeping, and data collection organization; VA Tech Dairy Science Advisory Board, an education advisory board.

Committees

The Board has established an Audit Committee, Compensation Committee, Risk Policy Committee, Governance Committee and Coordinating Committee. All members of the Board, other than the Chairman, serve on a committee. The Chairman of the Board serves as an ex-officio member of all Board committees and the Vice Chairman serves as a member of the Board Compensation Committee. The Board has one designated financial expert who serves on the Audit Committee. The responsibilities for each committee are set forth in its respective Board approved charter.

During February 2023, the Board re-elected Michael T. Stone as Chairman of the Board and William T. Robinson as Vice Chairman of the Board for 2023. The Chair appointed the following Chairpersons to the Board Committees for 2023: Sherry E. Bowden - Audit Committee; Jenny R. Black - Risk Policy Committee; William K. Jackson - Governance Committee; Michael T. Stone - Coordinating Committee; and, Michael W. Patrick - Compensation Committee.

Compensation of Directors

Directors were compensated in 2022 in cash at the rate of $84,546 per year, payable at $7,046 per month. This is compensation for attendance at Board meetings, Board committee meetings, certain other meetings pre-approved by the Board and other duties as assigned. Farm Credit Administration (FCA) regulations also allow additional compensation to be paid to a director in exceptional circumstances where extraordinary time and effort are involved. In this regard, additional compensation was paid for certain leadership positions on the Board, including the Chairman of the Board, Vice Chairman of the Board, Chair of each Board standing committee as well as to members of the Board Audit Committee in recognition of greater than normal participation in Board activities. Total cash compensation paid to all directors as a group during 2022 was $1,281,150. Directors received no non-cash compensation during 2022. Additional information for each director who served during 2022 is provided in the following table.

	Number of Days Served			
Name of Director	Board Meetings	Other Official Activities*	Farm Credit Council Bd. Activities	Total Comp. Paid During 2022
Gary L. Baldosser	15.50	14.00	3.25	$ 92,046
Jack W. Bentley, Jr.	16.00	14.00	6.50	92,046
Jenny R. Black	16.00	18.50	6.50	92,046
Sherry E. Bowden	16.00	19.25	6.50	98,296
William K. Jackson	16.00	17.50	6.50	92,046
Dwain K. Lanier	16.00	21.75	6.50	84,546
Fred R. Moore, Jr.	16.00	14.50	6.50	92,046
Michael W. Patrick	16.00	11.50	6.50	84,546
John Whitworth Player	16.00	9.75	6.50	84,546
Thomas E. Porter, Jr.	15.50	9.25	3.25	84,546
David L. Richesin	16.00	14.50	6.50	92,046
William T. Robinson	16.00	19.50	6.50	95,380
Michael T. Stone**	16.00	16.75	6.50	102,884
Ellis W. Taylor	16.00	15.00	6.50	94,130
Total				$1,281,150

* *Other official activities include Board committee meetings and Board training.*
** *Does not include 3.0 days served as Board-appointed member of the AgFirst and AgFirst/FCBT Plan Sponsor Committees.*

Directors are reimbursed on an actual cost basis for all expenses incurred in the performance of official duties. Such expenses may include transportation, lodging, meals, tips, tolls, parking of cars, laundry, registration fees and other expenses associated with travel on official business. A copy of the policy is available to shareholders upon request.

The aggregate amount of reimbursement for travel, subsistence and other related expenses for all directors as a group was $104,866 for 2022, $33,500 for 2021, and $21,809 for 2020.

Transactions with Senior Officers and Directors

The Bank's disclosure on loans to and transactions with its officers and directors, to be disclosed in this section, is incorporated herein by reference to Note 10, *Related Party Transactions*, to the Financial Statements included in this Annual Report to shareholders. Such loans are subject to special approval requirements contained in the FCA regulations and were made on the same terms, including interest rate, amortization schedule and collateral, as those prevailing at the time for comparable transactions with unaffiliated persons. No loan to a director or to any organization affiliated with such person, or to any immediate family member who resides in the same household as such person or in whose loan or business operation such person has a material financial or legal interest, involved more than the normal risk of collectability.

There have been no transactions between the Bank and senior officers or directors which require reporting per FCA regulations.

Involvement in Certain Legal Proceedings

There were no matters which came to the attention of management or the Board of Directors regarding involvement of current directors or senior officers in specified legal proceedings which should be disclosed in this section. No directors or senior officers have been involved in any legal proceedings during the last five years which require reporting per FCA regulations.

Relationship with Independent Registered Public Accounting Firm

There were no changes in or material disagreements with the Bank's independent registered public accounting firm on any matter of accounting principles or financial statement disclosure during this period.

Aggregate fees expensed by the Bank for services rendered by its independent registered public accounting firm for the year ended December 31, 2022 were as follows:

	2022
Independent Registered Public Accounting Firm	
PricewaterhouseCoopers LLP (PwC)	
Audit services	$ 1,071,000
Audit-related services	182,501
Non-audit services	30,900
Total	$ 1,284,401

Audit fees of $1,071,000 were for the annual audits of financial statements of the Bank and District. Audit-related fees were for benefit plan audits and systems and organization controls (SOC-1 and SOC-2) readiness assessment and attestation. Non-audit fees of $30,900 were for a disclosure checklist software subscription, and pre-implementation activities for the CECL accounting standard. Out-of-pocket expenses are included in the fee amounts reported above.

All non-audit services provided by PwC require pre-approval by the Audit Committee.

Financial Statements

The Financial Statements, together with the report thereon of PricewaterhouseCoopers LLP, dated March 9, 2023, and the Report of Management, which appear in this Annual Report to shareholders are incorporated herein by reference.

Borrower Information Regulations

FCA regulations require that borrower information be held in strict confidence by Farm Credit institutions, their directors, officers and employees. These regulations provide Farm Credit institutions clear guidelines for protecting their borrowers' nonpublic personal information.

On November 10, 1999, the FCA Board adopted a policy that requires Farm Credit institutions to formally inform new borrowers at loan closing of the FCA regulations on releasing borrower information and to address this information in the annual report to shareholders. The implementation of these measures ensures that new and existing borrowers are aware of the privacy protections afforded them through FCA regulations and Farm Credit System institution efforts.

Shareholder Investment

Shareholder investment in a District Association is materially affected by the financial condition and results of operations of AgFirst Farm Credit Bank. Copies of AgFirst's Annual and Quarterly Reports and combined information concerning AgFirst Farm Credit Bank and District Associations are available upon request free of charge by calling 1-800-845-1745, ext. 2764, or writing Matthew Miller, SVP and Controller, AgFirst Farm Credit Bank, P.O. Box 1499, Columbia, SC 29202. This information can also be obtained at the Bank's website, **www.agfirst.com**. The Bank prepares an electronic version of the Annual Report, which is available on the website, within 75 days after the end of the fiscal year. The Bank prepares an electronic version of each Quarterly Report within 40 days after the end of each fiscal quarter, except that no report is prepared for the fiscal quarter that coincides with the end of the fiscal year of the Bank.

Report on Internal Control Over Financial Reporting

The Bank's principal executives and principal financial officers, or persons performing similar functions, are responsible for establishing and maintaining adequate internal control over financial reporting. For purposes of this report, "internal control over financial reporting" is defined as a process designed by or under the supervision of the Bank's principal executives and principal financial officers, or persons performing similar functions, and effected by its Board of Directors, management and other personnel. This process is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America (GAAP).

Internal control over financial reporting includes those policies and procedures that: (1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Bank, (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP and that receipts and expenditures 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 its Financial Statements.

The Bank's management has completed an assessment of the effectiveness of internal control over financial reporting as of December 31, 2022. In making the assessment, management used the framework in *Internal Control — Integrated Framework* (2013), promulgated by the Committee of Sponsoring Organizations of the Treadway Commission, commonly referred to as the "COSO" criteria.

Based on the assessment performed, the Bank's management concluded that as of December 31, 2022, the internal control over financial reporting was effective based upon the COSO criteria. Additionally, based on this assessment, the Bank's management determined that there were no material weaknesses in the internal control over financial reporting as of December 31, 2022.

The Bank's internal control over financial reporting as of December 31, 2022 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in the Report of Independent Registered Public Accounting Firm which expresses an unqualified opinion on the effectiveness of the Bank's internal control over financial reporting as of December 31, 2022.

Leon T. Amerson
President and Chief Executive Officer

Stephen Gilbert
Executive Vice President and Chief Financial Officer

March 9, 2023

Report of the Audit Committee

The Audit Committee of the Board of Directors (the Committee) is comprised of the directors named below. None of the directors who serve on the Committee is an employee of AgFirst Farm Credit Bank (the Bank) and in the opinion of the Board of Directors, each is free of any relationship with the Bank or management that would interfere with the director's independent judgment on the Committee.

The Committee has adopted a written charter that has been approved by the Board of Directors. The Committee has reviewed and discussed the Bank's audited financial statements with management, which has primary responsibility for the financial statements. The financial statements were prepared under the oversight of the Committee.

PricewaterhouseCoopers LLP (PwC), the Bank's independent registered public accounting firm for 2022, is responsible for expressing an opinion on the conformity of the Bank's audited financial statements with accounting principles generally accepted in the United States of America. The Committee has discussed with PwC the matters that are required to be discussed by PCAOB Auditing Standard No. 16, *Communications with Audit Committees*. The Committee discussed with PwC its independence from the Bank. The Committee also reviewed the non-audit services provided by PwC and concluded that these services were not incompatible with maintaining PwC's independence.

Based on the considerations referred to above, the Committee recommended to the Board of Directors that the audited financial statements be included in the Bank's Annual Report for 2022. The foregoing report is provided by the following independent directors, who constitute the Committee:

Sherry E. Bowden
Chairman of the Audit Committee

Members of Audit Committee

Gary L. Baldosser
Jack W. Bentley, Jr.
David L. Richesin
Ellis W. Taylor

March 9, 2023

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of AgFirst Farm Credit Bank

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying balance sheets of AgFirst Farm Credit Bank (the “Company”) as of December 31, 2022, 2021, and 2020, and the related statements of comprehensive income, of changes in shareholders’ equity and of cash flows, for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the “financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the Report on Internal Control over Financial Reporting appearing on page 40 of the 2022 Annual Report to Shareholders. Our responsibility is to express opinions on the Company’s financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the relevant ethical requirements relating to our audit, which include standards of the American Institute of Certified Public Accountants (AICPA) Code of Professional Conduct and the Farm Credit Administration’s independence rules set forth in 12 CFR Part 621, *Accounting and Reporting Requirements,* Subpart E, *Auditor Independence.*

We conducted our audits in accordance with the auditing standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting,

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assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Allowance for Loan Losses – Loans Collectively Evaluated for Impairment

As described in Notes 2 and 3 to the financial statements, the allowance for loan losses was $26 million, of which $22.1 million is related to loans collectively evaluated for impairment as of December 31, 2022. Management estimates the allowance for loan losses related to loans collectively evaluated for impairment on a pool basis for those loans with similar characteristics. Management uses a two-dimensional loan rating model based on internally generated combined system risk rating guidance that incorporates a 14-point risk rating scale to identify and track the probability of borrower default and a separate scale addressing loss given default over a period of time. The probability of default is management's estimate of the probability that a borrower will experience a default within 12 months from the date of the determination of the risk rating, and the loss given default is management's estimate as to the anticipated loss on a specific loan assuming default has occurred or is expected to occur within the next 12 months. The level of the allowance may be adjusted for other relevant factors reflecting the current environment.

The principal considerations for our determination that performing procedures relating to the allowance for loan losses – loans collectively evaluated for impairment is a critical audit matter are the significant judgment by management in determining the allowance for loan losses, which in turn led to a high degree of auditor judgment, subjectivity and effort in performing audit procedures and evaluating audit evidence relating to management's estimated probability of default and estimated loss given default assumptions.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the financial statements. These procedures included testing the effectiveness of controls relating to management's allowance for loan losses estimation process, which included controls over the estimated probability of default and estimated loss given default assumptions used within the allowance for loan losses related to loans collectively evaluated for impairment. These procedures also included, among others, testing management's process for determining the allowance for loan losses, which included (i) testing the completeness and accuracy of certain data used in the estimate; (ii) evaluating the appropriateness of the methodology and models; and (iii) evaluating the reasonableness of management's estimated probability of default and estimated loss given default assumptions.

PricewaterhouseCoopers LLP

Charlotte, North Carolina
March 9, 2023

We have served as the Company's auditor since 1985.

Balance Sheets

(dollars in thousands)	As of December 31, 2022	2021	2020
Assets			
Cash	**$ 746,392**	$ 625,288	$ 693,685
Cash equivalents	**350,000**	400,000	520,000
Investments in debt securities:			
Available-for-sale (amortized cost of $10,055,933, $9,295,565, and $8,294,821, respectively)	**9,061,750**	9,317,572	8,485,350
Held-to-maturity (fair value of $13,500, $21,632, and $35,235, respectively)	**14,058**	19,133	30,078
Total investments in debt securities	**9,075,808**	9,336,705	8,515,428
Loans	**31,468,732**	28,535,682	26,224,989
Allowance for loan losses	**(26,070)**	(20,147)	(18,257)
Net loans	**31,442,662**	28,515,535	26,206,732
Accrued interest receivable	**125,349**	84,532	81,564
Accounts receivable	**89,980**	110,935	145,300
Equity investments in other Farm Credit institutions	**88,081**	84,922	80,647
Premises and equipment, net	**122,578**	83,891	61,164
Other assets	**31,870**	32,746	33,686
Total assets	**$ 42,072,720**	$ 39,274,554	$ 36,338,206
Liabilities			
Systemwide bonds payable	**$ 35,233,552**	$ 31,440,802	$ 25,693,876
Systemwide notes payable	**4,906,369**	4,915,969	7,662,337
Accrued interest payable	**137,220**	40,941	27,097
Accounts payable	**298,139**	525,841	428,425
Other liabilities	**45,821**	48,221	48,607
Total liabilities	**40,621,101**	36,971,774	33,860,342
Commitments and contingencies (Note 11)			
Shareholders' Equity			
Perpetual preferred stock	**—**	32,500	49,250
Capital stock and participation certificates	**300,539**	299,131	311,859
Additional paid-in-capital	**63,668**	63,673	58,883
Retained earnings			
Allocated	**123,413**	416	416
Unallocated	**1,957,897**	1,888,462	1,871,594
Accumulated other comprehensive (loss) income	**(993,898)**	18,598	185,862
Total shareholders' equity	**1,451,619**	2,302,780	2,477,864
Total liabilities and shareholders' equity	**$ 42,072,720**	$ 39,274,554	$ 36,338,206

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

Statements of Comprehensive Income

(dollars in thousands)	For the Year Ended December 31, 2022	2021	2020
Interest Income			
Investments	**$ 199,809**	$ 131,067	$ 158,756
Loans	**919,416**	696,450	765,690
Other	**5,016**	90	1,987
Total interest income	**1,124,241**	827,607	926,433
Interest Expense	**518,706**	179,209	345,086
Net interest income	**605,535**	648,398	581,347
Provision for (reversal of) allowance for loan losses	**7,704**	3,552	(6,220)
Net interest income after provision for (reversal of) allowance for loan losses	**597,831**	644,846	587,567
Noninterest Income			
Loan fees	**14,034**	12,508	11,326
Gains on investments, net	**—**	330	7,215
Gains (losses) on debt extinguishment	**56**	(9,204)	(65,475)
(Losses) gains on other transactions	**(1,553)**	2,745	11,433
Insurance premium refund	**—**	—	2,622
Patronage refunds from other Farm Credit institutions	**20,595**	18,597	14,444
Other noninterest income	**10,577**	8,704	8,492
Total noninterest income	**43,709**	33,680	(9,943)
Noninterest Expenses			
Salaries and employee benefits	**79,211**	76,604	73,467
Occupancy and equipment	**7,302**	7,080	7,494
Insurance Fund premiums	**26,979**	17,927	10,578
Purchased services	**57,487**	43,231	26,996
Data processing	**32,520**	25,965	18,954
Other operating expenses	**26,082**	21,678	22,009
(Gains) losses from other property owned	**(1)**	35	448
Total noninterest expenses	**229,580**	192,520	159,946
Net income	**$ 411,960**	$ 486,006	$ 417,678
Other comprehensive (loss) income:			
Unrealized (losses) gains on investments	**(1,016,190)**	(168,522)	138,205
Change in value of cash flow hedges	**(201)**	(86)	(246)
Employee benefit plans adjustments	**3,895**	1,344	(580)
Other comprehensive (loss) income (Note 7)	**(1,012,496)**	(167,264)	137,379
Comprehensive (loss) income	**$ (600,536)**	$ 318,742	$ 555,057

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

Statements of Changes in Shareholders' Equity

(dollars in thousands)	Perpetual Preferred Stock	Capital Stock and Participation Certificates	Additional Paid-In-Capital	Retained Earnings Allocated	Retained Earnings Unallocated	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
Balance at December 31, 2019	$ 49,250	$ 325,278	$ 58,883	$ 418	$ 1,848,506	$ 48,483	$ 2,330,818
Comprehensive income					417,678	137,379	555,057
Capital stock/participation certificates issued/(retired), net		(16,887)					(16,887)
Stock dividends declared/paid		3,468			(3,468)		—
Dividends paid on perpetual preferred stock					(963)		(963)
Patronage distribution							
Cash					(390,382)		(390,382)
Nonqualified allocated retained earnings				2	(2)		—
Retained earnings retired				(4)			(4)
Patronage distribution adjustment					225		225
Balance at December 31, 2020	$ 49,250	$ 311,859	$ 58,883	$ 416	$ 1,871,594	$ 185,862	$ 2,477,864
Comprehensive income (loss)					486,006	(167,264)	318,742
Redemption of perpetual preferred stock (Note 7)	(16,750)		4,790				(11,960)
Capital stock/participation certificates issued/(retired), net		(16,719)					(16,719)
Stock dividends declared/paid		3,991			(3,991)		—
Dividends paid on perpetual preferred stock					(521)		(521)
Cash patronage					(463,555)		(463,555)
Patronage distribution adjustment					(1,071)		(1,071)
Balance at December 31, 2021	$ 32,500	$ 299,131	$ 63,673	$ 416	$ 1,888,462	$ 18,598	$ 2,302,780
Comprehensive income (loss)					**411,960**	**(1,012,496)**	**(600,536)**
Redemption of perpetual preferred stock (Note 7)	**(32,500)**		**(5)**				**(32,505)**
Capital stock/participation certificates issued/(retired), net		**(3,111)**					**(3,111)**
Stock dividends declared/paid		**4,519**			**(4,519)**		**—**
Dividends paid on perpetual preferred stock					**(271)**		**(271)**
Patronage distribution							**—**
Cash					**(212,874)**		**(212,874)**
Nonqualified allocated retained earnings				**123,000**	**(123,000)**		**—**
Retained earnings retired				**(3)**			**(3)**
Patronage distribution adjustment					**(1,861)**		**(1,861)**
Balance at December 31, 2022	**$ —**	**$ 300,539**	**$ 63,668**	**$ 123,413**	**$ 1,957,897**	**$ (993,898)**	**$ 1,451,619**

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

Statements of Cash Flows

(dollars in thousands)	For the Year Ended December 31, 2022	2021	2020
Cash flows from operating activities:			
Net income	**$ 411,960**	$ 486,006	$ 417,678
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation on premises and equipment	**16,883**	13,588	8,594
Amortization of net deferred loan costs and premium amortization	**1,473**	7,792	9,314
Premium amortization on investment securities	**7,347**	20,965	21,245
Discount accretion on bonds and notes	**81,597**	17,154	68,061
Provision for (reversal of) allowance for loan losses	**7,704**	3,552	(6,220)
(Gains) losses on other property owned, net	**(1)**	(19)	452
Gains on investments, net	**—**	(330)	(7,215)
(Gains) losses on debt extinguishment	**(56)**	9,204	65,475
Losses (gains) on other transactions	**1,553**	(2,745)	(11,433)
Net change in loans held for sale	**—**	(1)	8,177
Changes in operating assets and liabilities:			
(Increase) decrease in accrued interest receivable	**(40,817)**	(2,968)	13,242
Decrease (increase) in accounts receivable	**20,955**	34,365	(18,435)
Increase (decrease) in accrued interest payable	**96,279**	13,844	(77,490)
Increase in accounts payable	**22,980**	24,090	4,997
Change in other, net	**711**	4,255	420
Total adjustments	**216,608**	142,746	79,184
Net cash provided by operating activities	**628,568**	628,752	496,862
Cash flows from investing activities:			
Investment securities purchased	**(2,890,220)**	(3,784,464)	(3,339,782)
Proceeds from maturities and prepayments of investment securities	**2,127,379**	2,729,720	2,818,253
Proceeds from sales of investment securities	**—**	44,224	62,865
Net increase in loans	**(2,936,304)**	(2,320,539)	(1,116,396)
Increase in equity investments in other Farm Credit System institutions	**(3,159)**	(4,275)	(3,937)
Purchase of premises and equipment, net	**(55,553)**	(36,165)	(15,834)
Proceeds from sale of premises and equipment	**90**	239	123
Proceeds from sale of other property owned	**1**	411	2,786
Net cash used in investing activities	**(3,757,766)**	(3,370,849)	(1,591,922)
Cash flows from financing activities:			
Bonds and notes issued	**21,491,609**	27,009,200	63,523,112
Bonds and notes retired	**(17,790,000)**	(24,035,000)	(62,024,202)
Redemption of perpetual preferred stock	**(32,505)**	(11,960)	—
Capital stock and participation certificates issued/retired, net	**(3,111)**	(16,719)	(16,887)
Distribution to shareholders	**(465,417)**	(391,300)	(266,870)
Dividends paid on perpetual preferred stock	**(271)**	(521)	(963)
Retained earnings retired	**(3)**	—	(4)
Net cash provided by financing activities	**3,200,302**	2,553,700	1,214,186
Net increase (decrease) in cash and cash equivalents	**71,104**	(188,397)	119,126
Cash and cash equivalents, beginning of period	**1,025,288**	1,213,685	1,094,559
Cash and cash equivalents, end of period	**$ 1,096,392**	$ 1,025,288	$ 1,213,685
Supplemental schedule of non-cash activities:			
Receipt of property in settlement of loans	**$ —**	$ 392	$ 197
Change in unrealized (losses) gains on investments, net	**(1,016,190)**	(168,522)	138,205
Change in value of cash flow hedges	**(201)**	(86)	(246)
Employee benefit plans adjustments	**(3,895)**	(1,344)	580
Distribution of nonqualified unallocated retained earnings	**(123,000)**	—	—
Supplemental information:			
Interest paid	**$ 340,830**	$ 148,211	$ 354,515

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

Notes to the Financial Statements

Note 1 — Organization and Operations

Organization: AgFirst Farm Credit Bank (the Bank or AgFirst) is a member-owned cooperative that provides credit and credit-related services to qualified borrowers. The Bank is chartered to serve the states of Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, the Commonwealth of Puerto Rico and portions of Ohio, Tennessee, Kentucky and Louisiana.

AgFirst is a lending institution in the Farm Credit System (the System), a nationwide network of cooperatively owned banks, associations and related service organizations. The System was established by Acts of Congress and is subject to the provisions of the Farm Credit Act of 1971, as amended (the Farm Credit Act). The System specializes in providing financing and related services to qualified borrowers for agricultural and rural purposes.

The nation is served by three Farm Credit Banks (FCBs) and one Agricultural Credit Bank (ACB) (collectively, the System Banks), each of which has specific lending authorities within its chartered territory. The ACB also has additional specific nationwide lending authorities. The System Banks obtain a substantial majority of the funds for their lending operations through the sale of consolidated Systemwide bonds and notes to the public, but may also obtain a portion from internally generated earnings, the issuance of common and preferred stock and, to a lesser extent, the issuance of subordinated debt.

Each System Bank serves one or more Agricultural Credit Associations (ACAs) that originate long-term, short-term and intermediate-term loans, Production Credit Associations (PCAs) that originate and service short- and intermediate-term loans, and/or Federal Land Credit Associations (FLCAs) that originate and service long-term real estate mortgage loans. These associations borrow a majority of the funds for their lending activities from their related bank. System Banks are also responsible for supervising the activities of associations within their districts. AgFirst and its related associations (Associations or District Associations) are collectively referred to as the AgFirst District. The District Associations, certain Other Financing Institutions (OFIs), other System institutions, and preferred stockholders jointly own AgFirst during the periods presented. As of year-end, the AgFirst District consisted of the Bank and eighteen District Associations. All eighteen were structured as ACA holding companies, with PCA and FLCA subsidiaries.

The Farm Credit Administration (FCA) is delegated authority by Congress to regulate the System Banks and associations. The FCA examines the activities of System institutions to ensure their compliance with the Farm Credit Act, FCA regulations, and safe and sound banking practices.

The Farm Credit Act also established the Farm Credit System Insurance Corporation (FCSIC) to administer the Farm Credit Insurance Fund (Insurance Fund). The Insurance Fund is required to be used: (1) to ensure the timely payment of principal and interest on Systemwide debt obligations (Insured Debt), (2) to ensure the retirement of protected borrower capital at par or stated value, and (3) for other specified purposes. The Insurance Fund is also available for discretionary uses by the FCSIC to provide assistance to certain troubled System institutions and to cover the operating expenses of the FCSIC. Each System Bank has been required to pay premiums, which may be passed on to the Associations, into the Insurance Fund until the assets in the Fund reach the "secure base amount." The secure base amount is defined in the Farm Credit Act as 2.0 percent of the aggregate insured obligations (adjusted to reflect the reduced risk on loans or investments guaranteed by federal or state governments) or such other percentage of the aggregate obligations as the FCSIC at its sole discretion determines to be actuarially sound. When the amount in the Insurance Fund exceeds the secure base amount, the FCSIC is required to reduce premiums and may return excess funds above the secure base amount to System institutions. However, it must still ensure that reduced premiums are sufficient to maintain the level of the Insurance Fund at the secure base amount.

Premiums are charged based upon each System Bank's pro rata share of outstanding Insured Debt. Premiums of up to 20 basis points on average adjusted Insured Debt obligations can be assessed along with a risk surcharge of 10 basis points on nonaccrual loans and other-than-temporarily impaired investments. The premium rate was 20 basis points in 2022, 16 basis points in 2021, and 8 basis points for the first half of 2020 and 11 basis points for the second half of 2020. The premium rate is expected to be 18 basis points for at least the first half of 2023.

AgFirst, in conjunction with other System Banks, jointly owns organizations that were created to provide a variety of services for the System:

- Federal Farm Credit Banks Funding Corporation (Funding Corporation) – provides for the issuance and marketing of Systemwide Debt Securities using a network of investment dealers and dealer banks. The Funding Corporation also provides financial management and reporting services.
- FCS Building Association – leases premises and equipment to the FCA.
- Farm Credit System Association Captive Insurance Company – being a reciprocal insurer, provides insurance services to its member organizations.

In addition, the Farm Credit Council acts as a full-service federated trade association which represents the System before Congress, the Executive Branch and others, and provides support services to System institutions on a fee basis.

Operations: The Farm Credit Act sets forth the types of authorized lending activity and financial services that can be offered by the Bank, and the persons eligible to borrow.

The Associations borrow from the Bank and in turn may originate and service both long-term real estate mortgage and short- and intermediate-term loans to their members.

The Bank primarily lends to the District Associations in the form of a line of credit to fund the Associations' earning assets. These lines of credit (or Direct Notes) are collateralized by a pledge of substantially all of each Association's assets. The terms of the Direct Notes are governed by a lending agreement between the Bank and each Association. Each advance is structured such that the principal cash flow, repricing characteristics, and underlying index (if any) of the advance match those of the assets being funded. By match-funding the Association loans, the Associations' interest rate risk is primarily transferred to the Bank.

In addition to providing loan funds, the Bank provides District Associations with banking and support services such as accounting, human resources, information systems, and marketing. The costs of these support services are included in the interest charges to the Associations, or in some cases billed directly to certain Associations that use a specific service.

The Bank is also authorized to provide, in participation with other lenders and the secondary market, credit, credit commitments, and related services to eligible borrowers. Eligible borrowers include farmers, ranchers, producers or harvesters of aquatic products, rural residents, and farm-related businesses. The Bank may also lend to OFIs qualified to engage in lending to eligible borrowers.

Note 2 — Summary of Significant Accounting Policies

The accounting and reporting policies of the Bank conform to accounting principles generally accepted in the United States of America (GAAP) and prevailing practices within the banking industry. The preparation of financial statements in conformity with GAAP requires the management of the Bank to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Significant estimates are discussed in these footnotes, as applicable. Actual results may differ from these estimates.

The accompanying Financial Statements include the accounts of the Bank, and reflect the investments in and allocated earnings of the service organizations in which the Bank has partial ownership interests.

Certain amounts in the prior year financial statements may have been reclassified to conform to the current period presentation. Such reclassifications had no effect on the prior period net income or total capital as previously reported.

A. **Cash and Cash Equivalents:** Cash and Cash Equivalents include cash on hand and short-term investments with original maturities of three months or less. Certain highly liquid equity securities, such as money market funds, may also be included. At the most recent year-end, the Bank held $501.4 million in cash in excess of insured amounts.

B. **Loans and Allowance for Loan Losses:** The loan portfolios include originated wholesale loans (i.e. Direct Notes), purchased capital markets loans, and purchased rural residential mortgage loans.

   Long-term real estate mortgage loans generally have original maturities up to 30 years. Substantially all short- and intermediate-term loans for agricultural production or operating purposes have maturities of 10 years or less.

   Loans are carried at their principal amount outstanding adjusted for charge-offs, premiums, discounts, deferred loan fees or costs, and hedging valuation adjustments, if any. Interest on loans is accrued and credited to interest income based upon the daily principal amount outstanding. The difference in the total investment in a loan and its principal amount is deferred as part of the carrying amount of the loan and the net difference is amortized over the life of the related loan as an adjustment to interest income using the interest method.

   Impaired loans are loans for which it is probable that all principal and interest will not be collected according to the contractual terms of the loan and are generally considered substandard or doubtful, which is in accordance with the loan rating model, as described below. Impaired loans include nonaccrual loans, restructured loans, and loans past due 90 days or more and still accruing interest. 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 remains contractually past due 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. A formal restructuring may also cure a past due status.

   Loans are generally classified as nonaccrual when principal or interest is delinquent for 90 days or more (unless adequately secured and in the process of collection) or circumstances indicate that collection of principal and/or interest is in doubt. When a loan is placed in nonaccrual status, accrued interest deemed uncollectible is reversed (if accrued in the current year) and/or charged against the allowance for loan losses (if accrued in prior years).

   When loans are in nonaccrual status, payments are applied against the recorded investment in the loan asset. If collection of the recorded investment in the loan is fully expected and the loan does not have a remaining unrecovered prior charge-off associated with it, the interest portion of payments received in cash may be recognized as interest income. Nonaccrual loans may be returned to accrual status when principal and interest are current, prior charge-offs have been recovered, the ability of the borrower to fulfill the contractual repayment terms is fully expected, and the loan is not classified "doubtful" or "loss." Loans are charged off at the time they are determined to be uncollectible.

   In cases where the Bank makes certain monetary concessions to the borrower through modifications to the contractual terms of the loan, the loan is classified as a restructured loan. A restructured loan constitutes a troubled debt restructuring (TDR) if, for economic or legal reasons related to the debtor's financial difficulties, the Bank grants a concession to the debtor that it would not otherwise consider. If the borrower's ability to meet the revised payment schedule is uncertain, the loan is classified as a nonaccrual loan.

   The allowance for loan losses is maintained at a level considered adequate by management to provide for probable and estimable losses inherent in the loan portfolio as of the periods presented. The allowance for loan losses is increased through provisions for loan losses and loan recoveries and is decreased through loan charge-offs and allowance reversals. A review of individual loans in each respective portfolio is performed periodically to determine the appropriateness of risk ratings and to ensure loss exposure to the Bank has been identified. The allowance for loan losses is a valuation account used to reasonably estimate loan losses as of the financial statement date. Determining the appropriate allowance for loan losses balance involves significant judgment about when a loss has been incurred and the amount of that loss.

The Bank considers the following factors, among others, when determining the allowance for loan losses:

- Credit risk classifications,
- Collateral values,
- Risk concentrations,
- Weather-related, disease or other adverse conditions,
- Current production and economic conditions, and
- Prior loan loss experience.

A specific allowance may be established for impaired loans. Impairment of these loans is measured based on the present value of expected future cash flows discounted at the loan's effective interest rate, the loan's observable market price, or fair value of the collateral if the loan is collateral dependent.

A general allowance may also be established to reflect estimated probable credit losses incurred in the remainder of the loan portfolio at the financial statement date, which excludes loans included under the specific allowance discussed above. A general allowance can be evaluated on a pool basis for those loans with similar characteristics. The level of the general allowance may be based on management's best estimate of the likelihood of default adjusted for other relevant factors reflecting the current environment.

Allowances for certain loan pools acquired from District Associations may incorporate the selling Association's methodologies for assigning general and/or specific allowances.

The credit risk rating methodology is a key component of the Bank's allowance for loan losses evaluation, and is generally incorporated into the institution's loan underwriting standards and internal lending limit. The Bank uses a two-dimensional loan rating model based on internally generated combined system risk rating guidance that incorporates a 14-point scale to identify and track the probability of borrower default and a separate scale addressing loss given default over a period of time. Probability of default is the probability that a borrower will experience a default within 12 months from the date of the determination of the risk rating. 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 is past due more than 90 days. The loss given default is management's estimate as to the anticipated economic loss on a specific loan assuming default has occurred or is expected to occur within the next 12 months.

Each of the ratings carries a distinct percentage of default probability. The 14-point scale provides for granularity of the probability of default, especially in the acceptable ratings. There are nine acceptable categories that range from a borrower of the highest quality to a borrower of minimally acceptable quality. The probability of default between 1 and 9 is very narrow and would reflect almost no default to a minimal default percentage. The probability of default grows significantly as a loan moves from a 9 to 10 (other assets especially mentioned) and grows more significantly as a loan moves to a substandard viable level of 11. A substandard non-viable rating of 12 indicates that the probability of default is almost certain. Loans risk rated 13 or 14 are generally written off.

C. **Loans Held for Sale:** Loans are classified as held for sale when there is intent to sell the loans within a reasonable period of time. Loans intended for sale are carried at the lower of cost or market.

Generally, only home loans that are to be sold on the secondary mortgage market through various lenders or into a securitization are held for sale.

D. **Other Property Owned (OPO):** Other property owned, consisting of real estate, personal property and other assets acquired through a collection action, is recorded upon acquisition at fair value less estimated selling costs. Any initial reduction in the carrying amount of a loan to the fair value of the collateral received is charged to the allowance for loan losses. Revised estimates to the fair value less cost to sell are reported as adjustments to the carrying amount of the asset, provided that such adjusted value is not in excess of the carrying amount at acquisition. Income, expenses and carrying value adjustments related to other property owned are included in Losses/Gains from Other Property Owned in the Statements of Comprehensive Income.

E. **Premises and Equipment:** Land is carried at cost. Premises and equipment are carried at cost less accumulated depreciation. Depreciation is provided on the straight-line method over the estimated useful lives of the assets, which range from 3 to 40 years. Computer software and hardware are amortized over 3 to 10 years. Gains and losses on dispositions are reflected in current operations. Maintenance and repairs are charged to operating expense and improvements that extend the useful life of the asset are capitalized. Premises and equipment are evaluated for impairment whenever events or circumstances indicate that the carrying value of the asset may not be recoverable.

From time to time, assets classified as premises and equipment are transferred to held for sale for various reasons. These assets are carried in Other Assets at the lower of the recorded investment in the asset or fair value less estimated cost to sell based upon the property's appraised value at the date of transfer. Any writedown of property held for sale is recorded as a loss in the period identified.

F. **Investments:** The Bank holds investments and investment securities as described below.

Equity Investments in Other Farm Credit System Institutions

Investments in other Farm Credit System institutions are generally nonmarketable investments consisting of stock and participation certificates, allocated surplus, and reciprocal investments in other institutions regulated by the FCA. These investments are carried at cost and evaluated for impairment based on the ultimate recoverability of the par value rather than by recognizing temporary declines in value.

Investments in Debt Securities

The Bank holds certain investment securities, as permitted under the FCA regulations. These investments are classified based on management's intention on the date of purchase and are generally recorded in the Balance Sheets as securities on the trade date.

Securities for which the Bank has the intent and ability to hold to maturity are classified as held-to-maturity (HTM) and carried at amortized cost. Investment securities classified as available-for-sale (AFS) are carried at fair value with net unrealized gains and losses included as a component of other comprehensive income (OCI). Purchase premiums and discounts are amortized or accreted ratably over the term of the respective security using the interest method. The amortization of premiums on certain purchased callable debt securities that have explicit, noncontingent call features and that are callable at fixed prices on preset dates are amortized to the earliest call date.

Other Investments
As discussed in Note 8, *Fair Value Measurement*, certain investments, consisting primarily of mutual funds, are held in trust and investment accounts and are reported at fair value. Holding period gains and losses are included within Noninterest Income on the Statements of Comprehensive Income and the balance of these investments is included in Other Assets on the accompanying Balance Sheets.

Impairment
The Bank reviews all investments that are in a loss position in order to determine whether the unrealized loss, which is considered an impairment, is temporary or other-than-temporary. As mentioned above, changes in the fair value of AFS investments are reflected in OCI, unless the investment is deemed to be other than temporarily impaired. Impairment is considered to be other-than-temporary if the present value of cash flows expected to be collected from the debt security is less than the amortized cost basis of the security (any such shortfall is referred to as a *credit loss*). If the Bank intends to sell an impaired debt security or is more likely than not to be required to sell the security before recovery of its amortized cost basis less any current-period credit loss, the impairment is other-than-temporary and recognized currently in earnings in an amount equal to the entire difference between fair value and amortized cost. If a credit loss exists, but the Bank does not intend to sell the impaired debt security and is not more likely than not to be required to sell before recovery, the impairment is other-than-temporary and is separated into (i) the estimated amount relating to credit loss, and (ii) the amount relating to all other factors. Only the estimated credit loss amount is charged to current earnings, with the remainder of the loss amount recognized in OCI.

In subsequent periods, if the present value of cash flows expected to be collected is less than the amortized cost basis, the Bank will record an additional other-than-temporary impairment (OTTI) and adjust the yield of the security prospectively. The amount of total OTTI for an AFS security that previously was impaired is determined as the difference between its carrying amount prior to the determination of OTTI and its fair value.

Investment Income
Interest on investment securities, including amortization of premiums and accretion of discounts, is included in Interest Income. Realized gains and losses from the sales of investment securities are recognized in current earnings using the specific identification method.

Dividends from equity investments in other Farm Credit institutions are generally recorded as patronage income and included in Noninterest Income.

G. **Debt:** Any discount or premium resulting from cash or noncash debt transactions is not an asset or liability separable from the instrument that gives rise to it. Therefore, the discount or premium is reported in the Balance Sheet as a direct deduction from or addition to the face amount of the note. Direct expenses incurred in issuing debt and mandatorily redeemable preferred stock are deferred and amortized using the interest method over the contractual term of the related indebtedness or mandatorily redeemable preferred stock. Debt issuance costs are presented in the Balance Sheets as a direct deduction from the carrying amount of the respective debt liability. All amortization and accretion of reductions or additions to the face amount of debt instruments is reported in Interest Expense.

The Bank issues both callable and noncallable debt instruments. A call feature is an agreement, stated in a financial instrument's terms, detailing how an issuance may be retired fully, or in part, before its contractual maturity date. The first call option date, and whether the instrument is continuously callable, or callable only on certain dates, is also explicitly stated. When a call option is exercised, it is accounted for as an extinguishment of debt. Any difference between the reacquisition price and the net carrying amount of the extinguished debt is recognized as losses or gains in current period earnings. Gains and losses are not amortized to future periods.

H. **Employee Benefit Plans:** Employees participate in District and multi-district sponsored benefit plans. These plans may include defined benefit final average pay retirement, defined benefit other postretirement benefits, and defined contribution plans.

Defined Contribution Plans
Substantially all employees are eligible to participate in a defined contribution plan, which qualifies as a 401(k) plan as defined by the Internal Revenue Code. Employee deferrals are not to exceed the maximum deferral as determined and adjusted by the Internal Revenue Service. Employer contributions to the plan are expensed as funded.

The Bank also offers a Farm Credit Benefits Alliance (FCBA) supplemental 401(k) plan for certain key employees. This plan is nonqualified. Employer contributions to the plan are expensed as funded.

Additional information may be found in Note 9, *Employee Benefit Plans*.

Multiemployer Defined Benefit Plans
Certain employees may participate in one or more defined benefit plans. The Plans are noncontributory and include eligible Bank and District employees. The "Projected Unit Credit" actuarial method is used for financial reporting purposes.

The Bank provides certain health care and life insurance benefits for retired employees (Other Postretirement Benefits) through a retiree healthcare plan. Substantially all employees are eligible for those benefits when they reach early retirement age while working for the Bank. Authoritative accounting guidance requires the accrual of the expected cost of providing these benefits to an employee, their beneficiaries and covered dependents during the years the employee renders service necessary to become eligible for benefits. This Other Postretirement Benefits plan is unfunded with expenses paid as incurred.

Since the foregoing plans are multiemployer, the Bank does not apply the provisions of Financial Accounting Standards Board (FASB) guidance on employers' accounting for defined benefit pension and other postretirement plans in its stand-alone financial statements. Rather, the effects of this guidance are reflected in the Annual Information Statement of the Farm Credit System.

Additional information may be found in Note 9, *Employee Benefit Plans*, and in the Notes to the Annual Information Statement of the Farm Credit System.

Single Employer Defined Benefit Plan
The Bank also sponsors a defined benefit plan for certain key employees. This plan is nonqualified; therefore, the associated liabilities are included in the Bank's Balance Sheets in Other Liabilities.

The foregoing defined benefit plan is considered single employer, therefore the Bank applies the provisions of FASB guidance on employers' accounting for defined benefit pension plans in its stand-alone financial statements.

Additional information may be found in Note 9, *Employee Benefit Plans*.

I. **Income Taxes:** The Bank is exempt from federal and other income taxes as provided in the Farm Credit Act.

J. **Valuation Methodologies:** FASB 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. This guidance also 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. It prescribes three levels of inputs that may be used to measure fair value.

Level 1 inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets. Level 1 assets and liabilities could include investment securities and derivative contracts that are traded in an active exchange market, in addition to certain U.S. Treasury securities that are highly-liquid and are actively traded in over-the-counter markets.

Level 2 inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets; quoted prices in markets that are not active; and inputs that are observable, or can be corroborated, for substantially the full term of the asset or liability. Level 2 assets and liabilities could include investment securities that are traded in active, non-exchange markets and derivative contracts that are traded in active, over-the-counter markets.

Level 3 inputs to the valuation methodology are unobservable and supported by little or no market activity. Level 3 assets and liabilities could include investments and derivative contracts whose value is determined using pricing models, discounted cash flow methodologies, or similar techniques, and other instruments for which the determination of fair value requires significant management judgment or estimation. Level 3 assets and liabilities could also include investments and derivative contracts whose price has been adjusted based on dealer quoted pricing that is different than a third-party valuation or internal model pricing.

The Bank may use internal resources or third parties to obtain fair value prices. Quoted market prices are generally used when estimating fair values of any assets or liabilities for which observable, active markets exist.

A number of methodologies may be employed to value items for which an observable active market does not exist. Examples of these items include: impaired loans, other property owned, and certain derivatives, investment securities and other financial instruments. Inputs to these valuations can involve estimates and assumptions that require a substantial degree of judgment. Some of the assumptions used include, among others, discount rates, rates of return on assets, repayment rates, cash flows, default rates, costs of servicing, and liquidation values. The use of different assumptions could produce significantly different asset or liability values, which could have material positive or negative effects on results of operations.

Any transfers between fair value levels occur at the end of the period.

Additional information may be found in Note 8, *Fair Value Measurement*.

K. **Off-Balance-Sheet Credit Exposures:** The credit risk associated with commitments to extend credit and letters of credit is essentially the same as that involved with extending loans to customers and is subject to normal credit policies. Collateral may be obtained based on management's assessment of the customer's creditworthiness.

Unfunded commitments, and other commitments to extend credit, are agreements to lend to customers, generally having fixed expiration dates or other termination clauses that may require payment of a fee.

Letters of credit are commitments issued to guarantee the performance of a customer to a third party. These letters of credit are issued to facilitate commerce and typically result in the commitment being funded when the underlying transaction is consummated between the customer and third party.

L. **Revenue Recognition:** The Bank generates income from multiple sources.

Financial Instruments
The largest source of revenue for the Bank is interest income. Interest income is recognized on an accrual basis governed by loan agreements or securities contracts. Credit-related fees, including letter of credit fees, finance charges and other fees are recognized in noninterest income when earned.

Contracts with Customers
The Bank maintains contracts with customers, primarily other System entities, to provide support services in various areas such as accounting, lending transactions, consulting, insurance, and information technology. As most of the contracts are to provide access to expertise or system capacity that the Bank maintains, there are no material incremental costs to fulfill these contracts that should be capitalized. The Bank also does not generally incur costs to obtain contracts. Revenue is recognized to reflect the transfer of goods and services to customers in an amount equal to the consideration the Bank receives or expects to receive.

Gains and Losses from Nonfinancial Assets
Any gains or losses on sales of Premises and Equipment and OPO are included as part of noninterest income or expense. These gains and losses are recognized, and the nonfinancial asset is derecognized, when the Bank has entered into a valid contract and transferred control of the asset. If the criteria to meet the definition of a contract have not been met, the Bank does not derecognize the nonfinancial asset and any consideration received is recognized as a liability. If the criteria for a contract are subsequently met, or if the consideration received is or becomes nonrefundable, a gain or loss may be recognized at that time.

M. **Leases:** A contract that conveys the right to control the use of an identified asset for a period of time in exchange for consideration is generally considered a lease. In the course of normal operations, the Bank may enter into leases for various business purposes.

Lessee
Contracts entered into are evaluated at inception to determine if they contain a lease. Assets and liabilities are recognized on the Balance Sheets to reflect the rights and obligations created by any contracts that do. These contracts are then classified as either operating or finance leases.

Generally, leases are for terms of three to five years and may include options to extend or terminate the arrangement. Any options are assessed individually to determine if it is reasonably certain they will be exercised.

Right-of-use (ROU) assets represent the right to use an underlying asset for the lease term, and lease liabilities represent the obligation to make the payments arising from the lease. ROU assets and lease liabilities are initially recognized based on the present value of lease payments over the lease term. Lease expense for operating leases is recognized on a straight-line basis over the lease term. Lease expense for finance leases is recognized on a declining basis over the lease term.

ROU assets are included on the Balance Sheets in Premises and Equipment for finance leases and Other Assets for operating leases. Lease liabilities are included in Other Liabilities on the Balance Sheets. Leases with an initial term of 12 months or less are not recorded on the Balance Sheets and lease expense is recognized over the lease term.

Lessor
The Bank acts as lessor in certain contractual arrangements. The contracts relate to office space in an owned property and are considered operating leases. Generally, leases are for terms of three to five years and may include options to extend or terminate the arrangement.

Lease income is recognized on a straight-line basis over the lease term. Lease and non-lease components are accounted for separately in the Statements of Comprehensive Income. Any initial direct costs are deferred and recognized as an expense over the lease term on the same basis as lease income. Any taxes assessed by a governmental authority are excluded from consideration as variable payments.

Lease receivables and income are included in Accounts Receivable on the Balance Sheets and Other Noninterest Income in the Statements of Comprehensive Income.

N. **Accounting Standards Updates (ASUs):** In June 2016, the FASB issued ASU 2016-13 Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This Update, and subsequent clarifying guidance and amendments issued, is intended to improve financial reporting by requiring timelier recording of credit losses on financial instruments. It requires an organization to measure all expected credit losses for financial assets held at the reporting date through the life of the financial instrument. Financial institutions and other organizations will use forward-looking information to estimate their credit losses. Additionally, the ASU amends the accounting for credit losses on available-for-sale debt securities and purchased financial assets with credit deterioration. The Bank adopted Topic 326 on January 1, 2023. The impact of adopting the new accounting standard was not material to the Bank's financial statements.

Note 3 — Loans and Allowance for Loan Losses

For a description of the Bank's accounting for loans, including impaired loans, and the allowance for loan losses, see Note 2, *Summary of Significant Accounting Policie*s, subsection B, *Loans and Allowance for Loan Losses*, above.

Credit risk arises from the potential inability of an obligor to meet its repayment obligation which exists in outstanding loans. The Bank manages credit risk associated with lending activities through an assessment of the credit risk profile of an individual obligor. The Bank sets its own underwriting standards and lending policies that provide direction to loan officers and are approved by the Board of Directors.

The credit risk management process begins with an analysis of the obligor's credit history, repayment capacity and financial position. Repayment capacity focuses on the obligor's ability to repay the obligation based on cash flows from operations or other sources of income, including non-farm income. Real estate mortgage loans must be secured by first liens on the real estate collateral. As required by FCA regulations, each institution that makes loans on a secured basis must have collateral evaluation policies and procedures.

The credit risk rating process for loans uses a two-dimensional structure, incorporating a 14-point probability of default scale and a separate scale addressing estimated percentage loss in the event of default. The loan rating structure incorporates borrower risk and transaction risk. Borrower risk is the risk of loss driven by factors intrinsic to the borrower. The transaction risk or facility risk is related to the structure of a credit (tenor, terms, and collateral). See further discussion in Note 2, *Summary of Significant Accounting Policies*, subsection B, *Loans and Allowance for Loan Losses*, above.

The Bank's loan portfolio, which includes purchased interests in loans, has been segmented by the following loan types as defined by the FCA:

- Direct Notes and loans to OFIs — revolving lines of credit provided to financing institutions to fund the lending needs of their borrowers.
- Real estate mortgage loans — loans made to full-time or part-time farmers secured by first lien real estate mortgages with maturities from five to thirty years. These loans may be made only in amounts up to 85 percent of the appraised value of the property taken as security or up to 97 percent of the appraised value if guaranteed by a federal, state, or other governmental agency. The actual percentage of loan-to-appraised value when loans are made is generally lower than the statutory required percentage.
- Production and intermediate-term loans — loans to full-time or part-time farmers that are not real estate mortgage loans. These loans fund eligible financing needs including operating inputs (such as labor, feed, fertilizer, and repairs), livestock, living expenses, income taxes, machinery or equipment, farm buildings, and other business-related expenses. Production loans may be made on a secured or unsecured basis and are most often made for a period of time that matches the borrower's normal production and marketing cycle, which is typically one year or less. Intermediate-term loans are made for a specific term, generally greater than one year and less than or equal to ten years.
- Loans to cooperatives — loans for any cooperative purpose other than for communication, power, and water and waste disposal.
- Processing and marketing loans — loans for operations to process or market the products produced by a farmer, rancher, or producer or harvester of aquatic products, or by a cooperative.
- Farm-related business loans — loans to eligible borrowers that furnish certain farm-related business services to farmers or ranchers that are directly related to their agricultural production.
- Rural residential real estate loans — loans made to individuals, who are not farmers, to purchase a single-family dwelling that will be the primary residence in open country, which may include a town or village that has a population of not more than 2,500 persons. In addition, the loan may be to remodel, improve, or repair a rural home, or to refinance existing debt. These loans are generally secured by a first lien on the property.
- Communication loans — loans primarily to finance rural communication providers.
- Power loans — loans primarily to finance electric generation, transmission and distribution systems serving rural areas.
- Water and waste disposal loans — loans primarily to finance water and waste disposal systems serving rural areas.
- International loans — primarily loans or credit enhancements to other banks to support the export of U.S. agricultural commodities or supplies. The federal government guarantees a substantial portion of these loans.
- Lease receivables — the net investment for all finance leases such as direct financing leases, leveraged leases, and sales-type leases.
- Other (including Mission Related) — additional investments in rural America approved by the FCA on a program or a case-by-case basis. Examples of such investments include partnerships with agricultural and rural community lenders, investments in rural economic development and infrastructure, and investments in obligations and mortgage securities that increase the availability of affordable housing in rural America.

A summary of loans outstanding follows:

	December 31,		
(dollars in thousands)	**2022**	**2021**	**2020**
Direct Notes	$ 21,217,281	$ 19,739,633	$ 17,945,905
Real estate mortgage	1,163,090	1,153,729	1,116,668
Production and intermediate-term	1,245,308	1,032,288	1,163,424
Loans to cooperatives	574,334	527,118	561,335
Processing and marketing	1,932,474	1,680,782	1,229,744
Farm-related business	127,789	79,888	46,732
Communication	680,224	545,699	462,287
Power and water/waste disposal	1,208,373	748,563	569,315
Rural residential real estate	3,044,026	2,784,761	2,899,911
International	104,238	76,739	84,948
Lease receivables	388	2,273	2,274
Loans to OFIs	166,260	159,061	137,098
Other (including Mission Related)	4,947	5,148	5,348
Total loans	$ 31,468,732	$ 28,535,682	$ 26,224,989

A substantial portion of the Bank's loan portfolio consists of notes receivable from District Associations. As described in Note 1, *Organization and Operations*, these notes are used by the Associations to fund their loan portfolios, which collateralize the notes. Therefore, the Bank's concentration of credit risk in various agricultural commodities associated with these notes approximates that of the District as a whole. Loan concentrations are considered to exist when there are amounts loaned to multiple borrowers engaged in similar activities, which would cause them to be similarly impacted by economic or other conditions. A substantial portion of the Associations' lending activities is collateralized, and their exposure to credit loss associated with lending activities is reduced accordingly, which further mitigates credit risk to the Bank. In addition, the allowance for loan losses is maintained to provide for probable and estimable credit losses within the loan portfolio. See further discussion in *Note 2, Summary of Significant Accounting Policies*, subsection B, *Loans and Allowance for Loan Losses*.

The Bank may purchase or sell participation interests with other parties in order to diversify risk, manage loan volume, and comply with FCA regulations. During 2022, 2021, and 2020 the Bank purchased $604.1 million, $629.0 million, and $758.3 million, respectively, of residential mortgage loans from various System associations and sold $1.8 million, $5.4 million, and $300.1 million, respectively, from the portfolio. These amounts are not included in the table below. The following tables present the principal balance of participation loans at periods ended:

	December 31, 2022							
	Within AgFirst District		Within Farm Credit System		Outside Farm Credit System		Total	
(dollars in thousands)	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold
Direct Notes	$ —	$ —	$ —	$ 1,329,542	$ —	$ —	$ —	$ 1,329,542
Real estate mortgage	1,230,458	233,348	375,125	309,796	8,786	12,187	1,614,369	555,331
Production and intermediate-term	1,739,496	440,755	785,499	1,032,498	212,096	16,625	2,737,091	1,489,878
Loans to cooperatives	—	64,988	640,528	—	—	—	640,528	64,988
Processing and marketing	548,571	734,903	943,046	511,726	1,691,188	—	3,182,805	1,246,629
Farm-related business	82,863	23,519	15,000	—	53,688	—	151,551	23,519
Communication	—	240,601	922,471	—	—	—	922,471	240,601
Power and water/waste disposal	—	79,203	1,289,791	—	—	—	1,289,791	79,203
International	—	57,322	161,772	—	—	—	161,772	57,322
Lease receivables	—	—	388	—	—	—	388	—
Other (including Mission Related)	4,989	—	—	—	—	—	4,989	—
Total	$ 3,606,377	$ 1,874,639	$ 5,133,620	$ 3,183,562	$ 1,965,758	$ 28,812	$ 10,705,755	$ 5,087,013

	December 31, 2021							
	Within AgFirst District		Within Farm Credit System		Outside Farm Credit System		Total	
(dollars in thousands)	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold
Direct Notes	$ —	$ —	$ —	$ 1,207,458	$ —	$ —	$ —	$ 1,207,458
Real estate mortgage	1,094,172	264,859	417,944	222,116	9,167	—	1,521,283	486,975
Production and intermediate-term	938,030	326,938	599,514	339,299	163,456	—	1,701,000	666,237
Loans to cooperatives	—	82,727	611,092	—	—	—	611,092	82,727
Processing and marketing	619,044	491,104	742,446	394,633	1,231,307	23,209	2,592,797	908,946
Farm-related business	68,074	3,127	15,000	—	—	—	83,074	3,127
Communication	—	124,573	671,467	—	—	—	671,467	124,573
Power and water/waste disposal	—	27,564	777,742	—	—	—	777,742	27,564
International	—	37,465	114,375	—	—	—	114,375	37,465
Lease receivables	—	—	2,273	—	—	—	2,273	—
Other (including Mission Related)	5,189	—	—	—	—	—	5,189	—
Total	$ 2,724,509	$ 1,358,357	$ 3,951,853	$ 2,163,506	$ 1,403,930	$ 23,209	$ 8,080,292	$ 3,545,072

	December 31, 2020							
	Within AgFirst District		Within Farm Credit System		Outside Farm Credit System		Total	
(dollars in thousands)	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold
Direct Notes	$ —	$ —	$ —	$ 1,140,679	$ —	$ —	$ —	$ 1,140,679
Real estate mortgage	925,168	268,995	461,829	139,113	—	—	1,386,997	408,108
Production and intermediate-term	1,006,855	289,335	566,819	414,651	293,111	—	1,866,785	703,986
Loans to cooperatives	—	100,108	662,244	—	—	—	662,244	100,108
Processing and marketing	427,406	492,099	585,801	374,018	1,105,058	16,095	2,118,265	882,212
Farm-related business	34,777	3,127	15,197	—	—	—	49,974	3,127
Communication	—	147,445	610,556	—	—	—	610,556	147,445
Power and water/waste disposal	—	23,332	593,855	—	—	—	593,855	23,332
International	—	40,659	125,704	—	—	—	125,704	40,659
Lease receivables	1,829	—	445	—	—	—	2,274	—
Other (including Mission Related)	5,392	—	—	—	—	—	5,392	—
Total	$ 2,401,427	$ 1,365,100	$ 3,622,450	$ 2,068,461	$ 1,398,169	$ 16,095	$ 7,422,046	$ 3,449,656

The recorded investment in a receivable is the face amount increased or decreased by applicable accrued interest and unamortized premium, discount, finance charges, or acquisition costs and may also reflect a previous direct writedown of the investment.

The following table shows loans and related accrued interest classified under the FCA Uniform Loan Classification System as a percentage of total loans and related accrued interest receivable by loan type as of December 31:

	2022	2021	2020
Direct Notes:			
Acceptable	100.00 %	100.00 %	92.09 %
OAEM	—	—	7.91
Substandard/doubtful/loss	—	—	—
	100.00 %	100.00 %	100.00 %
Real estate mortgage:			
Acceptable	98.66 %	96.89 %	97.58 %
OAEM	1.09	2.68	1.20
Substandard/doubtful/loss	0.25	0.43	1.22
	100.00 %	100.00 %	100.00 %
Production and intermediate-term:			
Acceptable	95.67 %	95.34 %	94.17 %
OAEM	1.33	2.33	4.67
Substandard/doubtful/loss	3.00	2.33	1.16
	100.00 %	100.00 %	100.00 %
Loans to cooperatives:			
Acceptable	96.95 %	95.38 %	96.15 %
OAEM	—	4.62	3.85
Substandard/doubtful/loss	3.05	—	—
	100.00 %	100.00 %	100.00 %
Processing and marketing:			
Acceptable	97.86 %	98.70 %	97.96 %
OAEM	1.45	0.98	2.04
Substandard/doubtful/loss	0.69	0.32	—
	100.00 %	100.00 %	100.00 %
Farm-related business:			
Acceptable	100.00 %	100.00 %	100.00 %
OAEM	—	—	—
Substandard/doubtful/loss	—	—	—
	100.00 %	100.00 %	100.00 %
Communication:			
Acceptable	100.00 %	100.00 %	100.00 %
OAEM	—	—	—
Substandard/doubtful/loss	—	—	—
	100.00 %	100.00 %	100.00 %

	2022	2021	2020
Power and water/waste disposal:			
Acceptable	99.52 %	98.54 %	100.00 %
OAEM	—	—	—
Substandard/doubtful/loss	0.48	1.46	—
	100.00 %	100.00 %	100.00 %
Rural residential real estate:			
Acceptable	99.49 %	99.46 %	99.56 %
OAEM	—	—	—
Substandard/doubtful/loss	0.51	0.54	0.44
	100.00 %	100.00 %	100.00 %
International:			
Acceptable	100.00 %	100.00 %	100.00 %
OAEM	—	—	—
Substandard/doubtful/loss	—	—	—
	100.00 %	100.00 %	100.00 %
Lease receivables:			
Acceptable	100.00 %	100.00 %	100.00 %
OAEM	—	—	—
Substandard/doubtful/loss	—	—	—
	100.00 %	100.00 %	100.00 %
Loans to OFIs:			
Acceptable	100.00 %	100.00 %	100.00 %
OAEM	—	—	—
Substandard/doubtful/loss	—	—	—
	100.00 %	100.00 %	100.00 %
Other (including Mission Related):			
Acceptable	100.00 %	100.00 %	100.00 %
OAEM	—	—	—
Substandard/doubtful/loss	—	—	—
	100.00 %	100.00 %	100.00 %
Total Loans:			
Acceptable	99.52 %	99.45 %	94.00 %
OAEM	0.18	0.34	5.85
Substandard/doubtful/loss	0.30	0.21	0.15
	100.00 %	100.00 %	100.00 %

The table above reflects credit quality remaining relatively stable during 2022 and improving during 2021. The improvement during 2021 was primarily due to the classification change from OAEM to Acceptable of a Direct Note to an Association.

The following tables provide an aging analysis of the recorded investment in past due loans as of:

	December 31, 2022				
(dollars in thousands)	30 Through 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
Direct Notes	$ —	$ —	$ —	$ 21,274,539	$ 21,274,539
Real estate mortgage	2,156	90	2,246	1,169,483	1,171,729
Production and intermediate-term	8,129	3,912	12,041	1,239,411	1,251,452
Loans to cooperatives	—	—	—	576,127	576,127
Processing and marketing	—	—	—	1,940,438	1,940,438
Farm-related business	—	—	—	128,318	128,318
Communication	—	—	—	680,791	680,791
Power and water/waste disposal	—	—	—	1,212,399	1,212,399
Rural residential real estate	39,066	9,958	49,024	3,001,742	3,050,766
International	—	—	—	105,189	105,189
Lease receivables	—	—	—	390	390
Loans to OFIs	—	—	—	166,666	166,666
Other (including Mission Related)	—	—	—	5,021	5,021
Total	$ 49,351	$ 13,960	$ 63,311	$ 31,500,514	$ 31,563,825

	December 31, 2021				
(dollars in thousands)	30 Through 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
Direct Notes	$ —	$ —	$ —	$ 19,778,813	$ 19,778,813
Real estate mortgage	1,643	—	1,643	1,158,223	1,159,866
Production and intermediate-term	—	—	—	1,035,686	1,035,686
Loans to cooperatives	—	—	—	527,727	527,727
Processing and marketing	—	—	—	1,684,429	1,684,429
Farm-related business	—	—	—	80,138	80,138
Communication	—	—	—	545,840	545,840
Power and water/waste disposal	55,251	10,980	66,231	684,273	750,504
Rural residential real estate	25,945	11,828	37,773	2,753,193	2,790,966
International	—	—	—	77,121	77,121
Lease receivables	—	—	—	2,280	2,280
Loans to OFIs	—	—	—	159,327	159,327
Other (including Mission Related)	—	—	—	5,225	5,225
Total	$ 82,839	$ 22,808	$ 105,647	$ 28,492,275	$ 28,597,922

	December 31, 2020				
(dollars in thousands)	30 Through 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
Direct Notes	$ —	$ —	$ —	$ 17,982,813	$ 17,982,813
Real estate mortgage	205	1,939	2,144	1,120,679	1,122,823
Production and intermediate-term	5,459	—	5,459	1,161,619	1,167,078
Loans to cooperatives	—	—	—	562,094	562,094
Processing and marketing	208	—	208	1,232,500	1,232,708
Farm-related business	112	—	112	46,705	46,817
Communication	—	—	—	462,394	462,394
Power and water/waste disposal	—	—	—	570,922	570,922
Rural residential real estate	48,459	10,606	59,065	2,848,659	2,907,724
International	—	—	—	85,328	85,328
Lease receivables	—	—	—	2,281	2,281
Loans to OFIs	—	—	—	137,379	137,379
Other (including Mission Related)	—	—	—	5,428	5,428
Total	$ 54,443	$ 12,545	$ 66,988	$ 26,218,801	$ 26,285,789

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

(dollars in thousands)	December 31, 2022	2021	2020
Nonaccrual loans:			
Real estate mortgage	$ 3,390	$ 1,537	$ 3,169
Production and intermediate-term	13,552	—	6,960
Processing and marketing	—	5,365	—
Power and water/waste disposal	2,966	10,980	—
Rural residential real estate	17,210	17,297	16,124
Total	$ 37,118	$ 35,179	$ 26,253
Accruing restructured loans:			
Real estate mortgage	$ 572	$ 1,050	$ 418
Production and intermediate-term	828	1,257	1,385
Processing and marketing	10,828	—	—
Rural residential real estate	27,611	19,106	2,990
Other (including Mission Related)	3,547	3,687	3,829
Total	$ 43,386	$ 25,100	$ 8,622
Accruing loans 90 days or more past due:			
Real estate mortgage	$ —	$ —	$ 596
Rural residential real estate	1,586	5,781	534
Total	$ 1,586	$ 5,781	$ 1,130
Total nonperforming loans	$ 82,090	$ 66,060	$ 36,005
Other property owned	—	—	—
Total nonperforming assets	$ 82,090	$ 66,060	$ 36,005
Nonaccrual loans as a percentage of total loans	0.12 %	0.12 %	0.10 %
Nonperforming assets as a percentage of total loans and other property owned	0.26 %	0.23 %	0.14 %
Nonperforming assets as a percentage of capital	5.66 %	2.87 %	1.45 %

The following table presents information relating to impaired loans (including accrued interest) as defined in Note 2, *Summary of Significant Accounting Policies*. Impaired loans are loans for which it is probable that all principal and interest will not be collected according to the contractual terms of the loan.

(dollars in thousands)	December 31, 2022	2021	2020
Impaired nonaccrual loans:			
Current as to principal and interest	$ 22,314	$ 13,601	$ 11,971
Past due	14,804	21,578	14,282
Total impaired nonaccrual loans	$ 37,118	$ 35,179	$ 26,253
Impaired accrual loans:			
Restructured	$ 43,386	$ 25,100	$ 8,622
90 days or more past due	1,586	5,781	1,130
Total impaired accrual loans	$ 44,972	$ 30,881	$ 9,752
Total impaired loans	$ 82,090	$ 66,060	$ 36,005
Additional commitments to lend	$ 15	$ 7,360	$ 1,889

Additional impaired loan information at period end is summarized as follows:

(dollars in thousands)	December 31, 2022			Year Ended December 31, 2022	
Impaired Loans	**Recorded Investment**	**Unpaid Principal Balance**	**Related Allowance**	**Average Impaired Loans**	**Interest Income Recognized on Impaired Loans**
With a related allowance for credit losses:					
Real estate mortgage	$ 154	$ 153	$ 21	$ 155	$ —
Production and intermediate-term	4,366	4,383	2,852	1,078	—
Processing and marketing	—	—	—	—	—
Power and water/waste disposal	2,966	2,966	117	10,656	—
Rural residential real estate	27,089	26,540	879	23,924	—
Other (including Mission Related)	3,547	3,544	92	3,590	224
Total	$ 38,122	$ 37,586	$ 3,961	$ 39,403	$ 224
With no related allowance for credit losses:					
Real estate mortgage	$ 3,808	$ 3,703	$ —	$ 3,320	$ 176
Production and intermediate-term	10,014	10,055	—	5,901	20
Processing and marketing	10,828	10,833	—	3,597	445
Power and water/waste disposal	—	—	—	—	—
Rural residential real estate	19,318	18,998	—	19,327	2,364
Other (including Mission Related)	—	—	—	—	—
Total	$ 43,968	$ 43,589	$ —	$ 32,145	$ 3,005
Total:					
Real estate mortgage	$ 3,962	$ 3,856	$ 21	$ 3,475	$ 176
Production and intermediate-term	14,380	14,438	2,852	6,979	20
Processing and marketing	10,828	10,833	—	3,597	445
Power and water/waste disposal	2,966	2,966	117	10,656	—
Rural residential real estate	46,407	45,538	879	43,251	2,364
Other (including Mission Related)	3,547	3,544	92	3,590	224
Total	$ 82,090	$ 81,175	$ 3,961	$ 71,548	$ 3,229

(dollars in thousands)	December 31, 2021			Year Ended December 31, 2021	
Impaired Loans	**Recorded Investment**	**Unpaid Principal Balance**	**Related Allowance**	**Average Impaired Loans**	**Interest Income Recognized on Impaired Loans**
With a related allowance for credit losses:					
Real estate mortgage	$ 100	$ 99	$ —	$ 241	$ —
Production and intermediate-term	—	—	—	—	—
Processing and marketing	—	—	—	2,179	—
Power and water/waste disposal	10,980	10,999	1,760	6,777	—
Rural residential real estate	19,092	18,749	436	11,685	—
Other (including Mission Related)	3,687	3,681	92	3,735	232
Total	$ 33,859	$ 33,528	$ 2,288	$ 24,617	$ 232
With no related allowance for credit losses:					
Real estate mortgage	$ 2,487	$ 2,516	$ —	$ 3,277	$ 219
Production and intermediate-term	1,257	1,252	—	4,573	418
Processing and marketing	5,365	5,429	—	1,415	—
Power and water/waste disposal	—	—	—	—	—
Rural residential real estate	23,092	22,342	—	17,169	1,636
Other (including Mission Related)	—	—	—	—	—
Total	$ 32,201	$ 31,539	$ —	$ 26,434	$ 2,273
Total:					
Real estate mortgage	$ 2,587	$ 2,615	$ —	$ 3,518	$ 219
Production and intermediate-term	1,257	1,252	—	4,573	418
Processing and marketing	5,365	5,429	—	3,594	—
Power and water/waste disposal	10,980	10,999	1,760	6,777	—
Rural residential real estate	42,184	41,091	436	28,854	1,636
Other (including Mission Related)	3,687	3,681	92	3,735	232
Total	$ 66,060	$ 65,067	$ 2,288	$ 51,051	$ 2,505

(dollars in thousands)	December 31, 2020			Year Ended December 31, 2020	
Impaired Loans	**Recorded Investment**	**Unpaid Principal Balance**	**Related Allowance**	**Average Impaired Loans**	**Interest Income Recognized on Impaired Loans**
With a related allowance for credit losses:					
Real estate mortgage	$ 103	$ 103	$ 1	$ 105	$ —
Production and intermediate-term	—	—	—	—	—
Loans to cooperatives	—	—	—	4,654	1,247
Rural residential real estate	9,420	9,268	338	5,680	—
Other (including Mission Related)	3,829	3,824	92	3,887	241
Total	$ 13,352	$ 13,195	$ 431	$ 14,326	$ 1,488
With no related allowance for credit losses:					
Real estate mortgage	$ 4,080	$ 4,084	$ —	$ 3,094	$ 80
Production and intermediate-term	8,345	8,988	—	9,418	1,814
Loans to cooperatives	—	—	—	—	—
Rural residential real estate	10,228	9,659	—	15,475	764
Other (including Mission Related)	—	—	—	—	—
Total	$ 22,653	$ 22,731	$ —	$ 27,987	$ 2,658
Total:					
Real estate mortgage	$ 4,183	$ 4,187	$ 1	$ 3,199	$ 80
Production and intermediate-term	8,345	8,988	—	9,418	1,814
Loans to cooperatives	—	—	—	4,654	1,247
Rural residential real estate	19,648	18,927	338	21,155	764
Other (including Mission Related)	3,829	3,824	92	3,887	241
Total	$ 36,005	$ 35,926	$ 431	$ 42,313	$ 4,146

Unpaid principal balance represents the contractual principal balance of the loan.

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

(dollars in thousands)	Direct Notes	Real Estate Mortgage	Production and Intermediate-term	Agribusiness*	Communication	Power and Water/ Waste Disposal	Rural Residential Real Estate	International	Other**	Total
Activity related to the allowance from credit losses:										
Balance at December 31, 2021	$ —	$ 1,513	$ 3,583	$ 5,532	$ 994	$ 2,854	$ 5,149	$ 84	$ 438	$ 20,147
Charge-offs	—	(13)	(10)	—	—	(864)	(1,279)	—	—	(2,166)
Recoveries	—	—	—	—	—	—	385	—	—	385
Provision for loan losses	—	(79)	3,184	2,680	282	(321)	1,939	24	(5)	7,704
Balance at December 31, 2022	$ —	$ 1,421	$ 6,757	$ 8,212	$ 1,276	$ 1,669	$ 6,194	$ 108	$ 433	$ 26,070
Balance at December 31, 2020	$ —	$ 1,551	$ 3,289	$ 4,553	$ 923	$ 1,024	$ 6,394	$ 130	$ 393	$ 18,257
Charge-offs	—	—	—	—	—	—	(1,881)	—	—	(1,881)
Recoveries	—	—	21	—	—	—	198	—	—	219
Provision for loan losses	—	(38)	273	979	71	1,830	438	(46)	45	3,552
Balance at December 31, 2021	$ —	$ 1,513	$ 3,583	$ 5,532	$ 994	$ 2,854	$ 5,149	$ 84	$ 438	$ 20,147
Balance at December 31, 2019	$ —	$ 1,667	$ 3,448	$ 5,112	$ 771	$ 1,438	$ 5,046	$ 137	$ 413	$ 18,032
Charge-offs	—	—	—	—	—	—	(104)	—	—	(104)
Recoveries	—	—	6,549	—	—	—	—	—	—	6,549
Provision for loan losses	—	(116)	(6,708)	(559)	152	(414)	1,452	(7)	(20)	(6,220)
Balance at December 31, 2020	$ —	$ 1,551	$ 3,289	$ 4,553	$ 923	$ 1,024	$ 6,394	$ 130	$ 393	$ 18,257
Allowance on loans evaluated for impairment:										
Individually	$ —	$ 21	$ 2,852	$ —	$ —	$ 117	$ 879	$ —	$ 92	$ 3,961
Collectively	—	1,400	3,905	8,212	1,276	1,552	5,315	108	341	22,109
Balance at December 31, 2022	$ —	$ 1,421	$ 6,757	$ 8,212	$ 1,276	$ 1,669	$ 6,194	$ 108	$ 433	$ 26,070
Individually	$ —	$ —	$ —	$ —	$ —	$ 1,760	$ 436	$ —	$ 92	$ 2,288
Collectively	—	1,513	3,583	5,532	994	1,094	4,713	84	346	17,859
Balance at December 31, 2021	$ —	$ 1,513	$ 3,583	$ 5,532	$ 994	$ 2,854	$ 5,149	$ 84	$ 438	$ 20,147
Individually	$ —	$ 1	$ —	$ —	$ —	$ —	$ 338	$ —	$ 92	$ 431
Collectively	—	1,550	3,289	4,553	923	1,024	6,056	130	301	17,826
Balance at December 31, 2020	$ —	$ 1,551	$ 3,289	$ 4,553	$ 923	$ 1,024	$ 6,394	$ 130	$ 393	$ 18,257
Recorded investment in loans evaluated for impairment:										
Individually	$ 21,274,539	$ 116,034	$ 14,380	$ 10,828	$ —	$ 2,966	$ 554,453	$ —	$ 3,547	$ 21,976,747
Collectively	—	1,055,695	1,237,072	2,634,055	680,791	1,209,433	2,496,313	105,189	168,530	9,587,078
Balance at December 31, 2022	$ 21,274,539	$ 1,171,729	$ 1,251,452	$ 2,644,883	$ 680,791	$ 1,212,399	$ 3,050,766	$ 105,189	$ 172,077	$ 31,563,825
Individually	$ 19,778,813	$ 128,017	$ 1,257	$ 5,365	$ —	$ 10,980	$ 636,322	$ —	$ 3,687	$ 20,564,441
Collectively	—	1,031,849	1,034,429	2,286,929	545,840	739,524	2,154,644	77,121	163,145	8,033,481
Balance at December 31, 2021	$ 19,778,813	$ 1,159,866	$ 1,035,686	$ 2,292,294	$ 545,840	$ 750,504	$ 2,790,966	$ 77,121	$ 166,832	$ 28,597,922
Individually	$ 17,982,813	$ 148,634	$ 8,345	$ —	$ —	$ —	$ 814,606	$ —	$ 3,829	$ 18,958,227
Collectively	—	974,189	1,158,733	1,841,619	462,394	570,922	2,093,118	85,328	141,259	7,327,562
Balance at December 31, 2020	$ 17,982,813	$ 1,122,823	$ 1,167,078	$ 1,841,619	$ 462,394	$ 570,922	$ 2,907,724	$ 85,328	$ 145,088	$ 26,285,789

**Includes the loan types: Loans to cooperatives, Processing and marketing, and Farm-related business.*
***Includes Loans to OFIs, Lease receivables, and Other loans (including Mission Related).*

To mitigate risk of loan losses, the Bank and Associations may enter into guarantee arrangements with certain government-sponsored enterprises (GSEs), including the Federal Agricultural Mortgage Corporation (Farmer Mac), and state or federal agencies. These guarantees generally remain in place until the loans are paid in full or expire and give the Bank or the Association the right to be reimbursed for losses incurred or to sell designated loans to the guarantor in the event of default (typically four months past due), subject to certain conditions. The guaranteed balance of designated loans under these agreements was $2.653 billion, $2.703 billion, and $2.869 billion at December 31, 2022, 2021, and 2020, respectively. Fees paid for such guarantee commitments totaled $3.0 million, $3.4 million, and $4.1 million for 2022, 2021, and 2020, respectively. These amounts are classified as noninterest expense.

A restructuring of a debt 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. The following tables present additional information about pre-modification and post-modification outstanding recorded investment and the effects of modifications that occurred during the periods presented. The tables do not include any purchased credit impaired loans.

(dollars in thousands)	Year Ended December 31, 2022				
Outstanding Recorded Investment	**Interest Concessions**	**Principal Concessions**	**Other Concessions**	**Total**	**Charge-offs**
Pre-modification:					
Real estate mortgage	$ —	$ 471	$ —	$ 471	
Production and intermediate-term	2,292	11,603	—	13,895	
Processing and marketing	—	11,045	—	11,045	
Rural residential real estate	13,141	3,573	—	16,714	
Total	$ 15,433	$ 26,692	$ —	$ 42,125	
Post-modification:					
Real estate mortgage	$ —	$ 471	$ —	$ 471	$ —
Production and intermediate-term	2,292	11,603	—	13,895	—
Processing and marketing	—	11,045	—	11,045	—
Rural residential real estate	14,423	3,899	—	18,322	(1,244)
Total	$ 16,715	$ 27,018	$ —	$ 43,733	$ (1,244)

(dollars in thousands)	Year Ended December 31, 2021				
Outstanding Recorded Investment	**Interest Concessions**	**Principal Concessions**	**Other Concessions**	**Total**	**Charge-offs**
Pre-modification:					
Real estate mortgage	$ 644	$ 698	$ —	$ 1,342	
Rural residential real estate	20,769	—	—	20,769	
Total	$ 21,413	$ 698	$ —	$ 22,111	
Post-modification:					
Real estate mortgage	$ 651	$ 698	$ —	$ 1,349	$ —
Rural residential real estate	22,328	—	—	22,328	(1,344)
Total	$ 22,979	$ 698	$ —	$ 23,677	$ (1,344)

(dollars in thousands)	Year Ended December 31, 2020				
Outstanding Recorded Investment	**Interest Concessions**	**Principal Concessions**	**Other Concessions**	**Total**	**Charge-offs**
Pre-modification:					
Real estate mortgage	$ 685	$ 59	$ —	$ 744	
Production and intermediate-term	—	13	—	13	
Rural residential real estate	744	85	—	829	
Total	$ 1,429	$ 157	$ —	$ 1,586	
Post-modification:					
Real estate mortgage	$ 685	$ 59	$ —	$ 744	$ —
Production and intermediate-term	—	13	—	13	—
Rural residential real estate	766	87	—	853	—
Total	$ 1,451	$ 159	$ —	$ 1,610	$ —

Interest concessions may include interest forgiveness and interest deferment. Principal concessions may include principal forgiveness, principal deferment, and maturity extension. Other concessions may include additional compensation received which might be in the form of cash or other assets.

The following table presents outstanding recorded investment for TDRs that occurred during the previous twelve months and for which there was a subsequent payment default during the period. Payment default is defined as a payment that was thirty days or more past due.

	December 31,		
(dollars in thousands)	2022	2021	2020
Defaulted troubled debt restructurings:			
Real estate mortgage	$ —	$ 605	$ —
Production and intermediate-term	4,891	—	—
Rural residential real estate	6,170	1,675	174
Total	$ 11,061	$ 2,280	$ 174

The following table provides information at each period end on outstanding loans restructured in troubled debt restructurings. These loans are included as impaired loans in the impaired loan table:

	Total TDRs			Nonaccrual TDRs		
	December 31,			December 31,		
(dollars in thousands)	2022	2021	2020	2022	2021	2020
Real estate mortgage	$ 1,000	$ 1,231	$ 1,344	$ 428	$ 181	$ 926
Production and intermediate-term	6,172	1,257	1,444	5,344	—	59
Processing and marketing	10,828	—	—	—	—	—
Rural residential real estate	32,271	23,491	5,801	4,660	4,385	2,811
Other (including Mission Related)	3,547	3,687	3,829	—	—	—
Total	$ 53,818	$ 29,666	$ 12,418	$ 10,432	$ 4,566	$ 3,796
Additional commitments to lend	$ —	$ —	$ —			

Note 4 — Investments

Equity Investments in Other Farm Credit System Institutions

Equity investments in other Farm Credit System institutions are generally nonmarketable investments consisting of stock and participation certificates, allocated surplus, and reciprocal investments in other institutions regulated by the FCA.

Investments in Debt Securities

The Bank's investments in debt securities consist primarily of mortgage-backed securities (MBSs) collateralized by U.S. government or U.S. agency guaranteed residential and commercial mortgages. Also included are asset-backed securities (ABSs) which are issued through the Small Business Administration and are guaranteed by the full faith and credit of the U.S. government. They are held to maintain a liquidity reserve, manage short-term surplus funds, and manage interest rate risk. These securities meet the applicable FCA regulatory guidelines related to government agency guaranteed investments.

Non-agency ABSs are included in AFS investments. These securities must meet the applicable FCA regulatory guidelines, which require them to be high quality, senior class, and rated in the top category (AAA/Aaa) by Nationally Recognized Statistical Rating Organizations (NRSROs) at the time of purchase. To achieve these ratings, the securities may have a guarantee of timely payment of principal and interest, credit enhancements achieved through over-collateralization or other means, priority of payments for senior classes over junior classes, or bond insurance. All of the non-agency securities owned have one or more credit enhancement features.

HTM investments in debt securities consist primarily of Mission Related Investments acquired primarily under the Rural America Bond (RAB) pilot programs. RABs are private placement securities which generally have some form of credit enhancement.

An agreement with a commercial bank requires AgFirst to maintain $50.0 million as a compensating balance. At December 31, 2022, the Bank held $40.2 million in U.S. Treasury securities for that purpose. The remainder of the compensating balance is held in cash in a demand deposit account. These securities are excluded when calculating the amount of eligible liquidity investments.

Available-for-sale

A summary of the amortized cost and fair value of debt securities held as available-for-sale investments at each period end follows:

	December 31, 2022				
(dollars in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Yield
U.S. Govt. Treasury Securities	$ 142,345	$ —	$ (2,629)	$ 139,716	0.57 %
U.S. Govt. Guaranteed	4,481,124	582	(502,233)	3,979,473	2.58
U.S. Govt. Agency Guaranteed	5,022,259	268	(484,982)	4,537,545	2.68
Non-Agency ABSs	410,205	25	(5,214)	405,016	3.96
Total	$ 10,055,933	$ 875	$ (995,058)	$ 9,061,750	2.66 %

	December 31, 2021				
(dollars in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Yield
U.S. Govt. Treasury Securities	$ 342,763	$ 1	$ (651)	$ 342,113	0.13 %
U.S. Govt. Guaranteed	4,131,704	67,541	(34,158)	4,165,087	1.76
U.S. Govt. Agency Guaranteed	4,468,622	20,502	(32,689)	4,456,435	1.36
Non-Agency ABSs	352,476	1,461	—	353,937	1.80
Total	$ 9,295,565	$ 89,505	$ (67,498)	$ 9,317,572	1.51 %

	December 31, 2020				
(dollars in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Yield
U.S. Govt. Treasury Securities	$ 317,755	$ 1,121	$ (6)	$ 318,870	0.50 %
U.S. Govt. Guaranteed	4,229,674	134,591	(2,841)	4,361,424	2.19
U.S. Govt. Agency Guaranteed	3,105,575	50,946	(964)	3,155,557	1.25
Non-Agency ABSs	641,817	7,699	(17)	649,499	1.30
Total	$ 8,294,821	$ 194,357	$ (3,828)	$ 8,485,350	1.70 %

Held-to-maturity

A summary of the amortized cost and fair value of debt securities held as held-to-maturity investments at each period end follows:

	December 31, 2022				
(dollars in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Yield
U.S. Govt. Agency Guaranteed	$ 436	$ —	$ (8)	$ 428	5.92 %
RABs and Other	13,622	56	(606)	13,072	5.90
Total	$ 14,058	$ 56	$ (614)	$ 13,500	5.90 %

	December 31, 2021				
(dollars in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Yield
U.S. Govt. Agency Guaranteed	$ 475	$ —	$ (8)	$ 467	5.94 %
RABs and Other	18,658	2,507	—	21,165	5.94
Total	$ 19,133	$ 2,507	$ (8)	$ 21,632	5.94 %

	December 31, 2020				
(dollars in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Yield
U.S. Govt. Agency Guaranteed	$ 1,121	$ —	$ (22)	$ 1,099	5.67 %
RABs and Other	28,957	5,179	—	34,136	5.99
Total	$ 30,078	$ 5,179	$ (22)	$ 35,235	5.98 %

A summary of the contractual maturity, estimated fair value, and amortized cost of investment securities at December 31, 2022, follows:

Available-for-sale

	Due in 1 Year or Less		Due After 1 Year Through 5 Years		Due After 5 Years Through 10 Years		Due After 10 Years		Total	
(dollars in thousands)	Amount	Weighted Average Yield	Amount	Weighted Average Yield	Amount	Weighted Average Yield	Amount	Weighted Average Yield	Amount	Weighted Average Yield
U.S. Govt. Treasury Securities	$ 99,468	0.14 %	$ 40,248	1.61 %	$ —	— %	$ —	— %	$ 139,716	0.57 %
U.S. Govt. Guaranteed	—	—	40,037	2.60	425,872	2.39	3,513,564	2.60	3,979,473	2.58
U.S. Govt. Agency Guaranteed	—	—	235,580	2.78	1,497,679	3.60	2,804,286	2.24	4,537,545	2.68
Non-Agency ABSs	—	—	405,016	3.96	—	—	—	—	405,016	3.96
Total fair value	$ 99,468	0.14 %	$ 720,881	3.35 %	$ 1,923,551	3.32 %	$ 6,317,850	2.44 %	$ 9,061,750	2.66 %
Total amortized cost	$ 100,034		$ 745,141		$ 2,006,512		$ 7,204,246		$ 10,055,933	

Held-to-maturity

	Due in 1 Year or Less		Due After 1 Year Through 5 Years		Due After 5 Years Through 10 Years		Due After 10 Years		Total	
(dollars in thousands)	Amount	Weighted Average Yield	Amount	Weighted Average Yield	Amount	Weighted Average Yield	Amount	Weighted Average Yield	Amount	Weighted Average Yield
U.S. Govt. Agency Guaranteed	$ —	— %	$ —	— %	$ —	— %	$ 436	5.92 %	$ 436	5.92 %
RABs and Other	—	—	3,199	6.12	—	—	10,423	5.84	13,622	5.90
Total amortized cost	$ —	— %	$ 3,199	6.12 %	$ —	— %	$ 10,859	5.84 %	$ 14,058	5.90 %
Total fair value	$ —		$ 3,137		$ —		$ 10,363		$ 13,500	

A substantial portion of these investments has contractual maturities in excess of ten years. However, expected maturities for these types of securities will differ from contractual maturities because borrowers may have the right to prepay obligations with or without prepayment penalties.

An investment is considered impaired if its fair value is less than its cost. This also applies to those securities other-than-temporarily impaired for which a credit loss has been recognized but noncredit-related losses continue to remain unrealized. The following tables show the fair value and gross unrealized losses for investments that have been in a continuous unrealized loss position aggregated by investment category at each reporting period. A continuous unrealized loss position for an investment is measured from the date the impairment was first identified.

	December 31, 2022					
	Less Than 12 Months		12 Months Or Greater		Total	
(dollars in thousands)	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. Govt. Treasury Securities	$ 14,575	$ (253)	$ 125,141	$ (2,376)	$ 139,716	$ (2,629)
U.S. Govt. Guaranteed	2,605,800	(228,069)	1,296,188	(274,164)	3,901,988	(502,233)
U.S. Govt. Agency Guaranteed	2,767,577	(152,133)	1,759,524	(332,857)	4,527,101	(484,990)
Non-Agency ABSs	364,991	(5,214)	—	—	364,991	(5,214)
RABs and Other	9,404	(606)	—	—	9,404	(606)
Total	$ 5,762,347	$ (386,275)	$ 3,180,853	$ (609,397)	$ 8,943,200	$ (995,672)

	December 31, 2021					
	Less Than 12 Months		12 Months Or Greater		Total	
(dollars in thousands)	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. Govt. Treasury Securities	$ 242,079	$ (651)	$ —	$ —	$ 242,079	$ (651)
U.S. Govt. Guaranteed	1,502,188	(29,512)	244,954	(4,646)	1,747,142	(34,158)
U.S. Govt. Agency Guaranteed	2,367,203	(32,340)	96,074	(357)	2,463,277	(32,697)
Total	$ 4,111,470	$ (62,503)	$ 341,028	$ (5,003)	$ 4,452,498	$ (67,506)

	December 31, 2020					
	Less Than 12 Months		12 Months Or Greater		Total	
(dollars in thousands)	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
U.S. Govt. Treasury Securities	$ 49,955	$ (6)	$ —	$ —	$ 49,955	$ (6)
U.S. Govt. Guaranteed	443,230	(1,371)	442,431	(1,470)	885,661	(2,841)
U.S. Govt. Agency Guaranteed	225,320	(378)	161,265	(608)	386,585	(986)
Non-Agency ABSs	17,589	(17)	—	—	17,589	(17)
Total	$ 736,094	$ (1,772)	$ 603,696	$ (2,078)	$ 1,339,790	$ (3,850)

The recording of an impairment loss is predicated on: (1) whether or not management intends to sell the security, (2) whether it is more likely than not that management would be required to sell the security before recovering its costs, and (3) whether management expects to recover the security's entire amortized cost basis (even if there is no intention to sell). If the Bank intends to sell the security or it is more likely than not that it would be required to sell the security, the impairment loss recognized equals the full difference between amortized cost and fair value of the security. When the Bank does not intend to sell securities in an unrealized loss position and it is not more likely than not that it would be required to sell the securities, other-than-temporary impairment loss is separated into credit loss and non-credit loss. Credit loss is defined as the shortfall of the present value of the cash flows expected to be collected in relation to the amortized cost basis.

The Bank performs periodic credit reviews, including OTTI analyses, on its investment securities portfolio. The objective is to quantify future possible loss of principal or interest due on securities in the portfolio.

The Bank has not recognized any credit losses for the periods presented as the impairments were deemed temporary and result from non-credit related factors. The Bank has the ability and intent to hold these investments until a recovery of unrealized losses occurs, which may be at maturity, and at this time expects to collect the full principal amount and interest due on these securities. Substantially all of these investments were in U.S. government or U.S. government agency securities and the Bank expects these securities would not be settled at a price less than their amortized cost.

Note 5 — Premises and Equipment

Premises and equipment consisted of the following:

	December 31,		
(dollars in thousands)	2022	2021	2020
Land	$ 12,258	$ 12,217	$ 12,217
Buildings and improvements	47,334	46,285	45,997
Furniture and equipment	67,374	62,791	52,769
Work in progress	67,608	27,131	6,995
	194,574	148,424	117,978
Less: accumulated depreciation	71,996	64,533	56,814
Total	$ 122,578	$ 83,891	$ 61,164

Note 6 — Debt

Bonds and Notes

AgFirst, unlike commercial banks and other depository institutions, obtains funds for its lending operations primarily from the sale of Systemwide Debt Securities issued jointly by the System Banks through the Funding Corporation. Certain conditions must be met before AgFirst can participate in the issuance of Systemwide Debt Securities. As one condition of participation, AgFirst is required by the Farm Credit Act and FCA regulations to maintain specified eligible assets, at least equal in value to the total amount of debt obligations outstanding for which it is primarily liable. This requirement does not provide holders of Systemwide Debt Securities with a security interest in any assets of the banks. The System Banks and the Funding Corporation have entered into the Third Amended and Restated Market Access Agreement (MAA), which establishes criteria and procedures for the banks to provide certain information and, under certain circumstances, for restricting or prohibiting an individual bank's participation in Systemwide debt issuances, thereby reducing other System Banks' exposure to statutory joint and several liabilities. At December 31, 2022, AgFirst was in compliance with the conditions of participation for the issuances of Systemwide Debt Securities.

In accordance with FCA regulations, each issuance of Systemwide Debt Securities ranks equally with other unsecured Systemwide Debt Securities. Systemwide Debt Securities are not issued under an indenture and no trustee is provided with respect to these securities. Systemwide Debt Securities are not subject to acceleration prior to maturity upon the occurrence of any default or similar event.

The following table provides a summary of AgFirst's recorded liability for outstanding Systemwide Debt Securities by maturity.

	December 31, 2022					
	Bonds		Discount Notes		Total	
Maturities	Cost	Weighted Average Interest Rate	Cost	Weighted Average Interest Rate	Cost	Weighted Average Interest Rate
	(dollars in thousands)					
2023	$ 9,264,536	2.27%	$ 4,906,369	3.26%	$ 14,170,905	2.61%
2024	7,161,256	2.17%	—	—	7,161,256	2.17%
2025	4,046,932	1.63%	—	—	4,046,932	1.63%
2026	3,020,067	1.63%	—	—	3,020,067	1.63%
2027	2,256,538	1.81%	—	—	2,256,538	1.81%
2028 and after	9,484,223	2.61%	—	—	9,484,223	2.61%
Total	$ 35,233,552	2.18%	$ 4,906,369	3.26%	$ 40,139,921	2.32%

Discount notes are issued with maturities of one year or less. The weighted average maturity of discount notes at period end was 127 days.

Systemwide debt includes callable bonds consisting of the following as of the most recent year-end:

Amortized Cost	First Call Date	Year of Maturity
	(dollars in thousands)	
$ 24,542,877	2023	2023 - 2037
$ 24,542,877	Total	

Most callable debt may be called on the first call date and any time thereafter.

As described in Note 1, *Organization and Operations*, the Insurance Fund is available to ensure the timely payment of principal and interest on Systemwide Debt Securities (Insured Debt) of System Banks to the extent net assets are available in the Insurance Fund and not designated for specific use.

Note 7 — Shareholders' Equity

Descriptions of the Bank's capitalization requirements, protection mechanisms, regulatory capitalization requirements and restrictions, and equities are provided below:

A. **Description of Equities:** In accordance with the Farm Credit Act and the Bank's capitalization bylaws (Bylaws), the Bank is authorized to issue and have outstanding Classes B, C, D, and E Common Stock, Participation Certificates, Preferred Stock, and other classes of equity as may be provided for in the Bylaws. All Common Stock and Participation Certificates have a par or face value of five dollars per share.

   The Bank had the following shares of common equities outstanding at December 31, 2022:

		Shares Outstanding (dollars in thousands)	
Class	Protected Status	Number	Aggregate Par Value
B Common/Non-OFI	No	1,077,258	$ 5,386
C Common/Voting	No	50,517,526	252,588
D Common/Nonvoting	No	7,704,896	38,524
E Common/Nonvoting	No	—	—
Participation Certificates/Nonvoting	No	808,158	4,041
Total Capital Stock and Participation Certificates		60,107,838	$ 300,539

B. **Perpetual Preferred Stock:** On June 8, 2007, AgFirst issued $250.0 million of Class B Perpetual Non-Cumulative Fixed-to-Floating Rate Subordinated Preferred Stock, Series 1. Dividends on the stock are non-cumulative and are payable quarterly in arrears on the 15th day of March, June, September, and December in each year, at an annual rate equal to 3-Month U.S. dollar (USD) LIBOR plus 1.13 percent. In the event dividends are not declared on the Class B, Series 1 Preferred Stock for payment on any dividend payment date, then such dividends shall not accumulate and shall cease to accrue and be payable. The stock may be redeemed on June 15th on any five-year anniversary of its year of issuance at a price of $1 thousand per share plus accrued and unpaid dividends for the then current dividend period to the date of redemption. On June 15, 2022, the remaining perpetual preferred stock of $32.5 million was redeemed at par. During 2021, the Bank repurchased, through privately negotiated transactions, and subsequently cancelled, Class B Perpetual Non-Cumulative Fixed-to-Floating Rate Subordinated Preferred Stock with par value totaling $16.8 million. The effect of the repurchases on shareholders' equity was to reduce preferred stock outstanding by $16.8 million and to increase additional paid-in capital by $4.8 million.

C. **Capital Stock:** District Associations are required to maintain ownership in the Bank in the form of Class B or Class C Common Stock as determined by the Bank. Associations fund stock purchases through Direct Note advances. A stock equalization computation is made annually. The Bank may require additional capital contributions to maintain its capital levels. At December 31, 2022, 2021, and 2020, the Associations' minimum stock requirement was 1.00 percent, 1.10 percent, and 1.26 percent, respectively, of Association Direct Note balances based on a risk-adjusted asset formula.

Additionally, the Bank has issued Class D Common Stock through patronage distributions in connection with participations purchased by the Bank from certain other System institutions selling loans to the Bank in accordance with the provisions of the Bank's capitalization plan. Class D Common Stock issued in connection with participations has no voting rights except to the extent that voting rights are granted to the Class D Common Stock pursuant to the Act, the FCA Regulations, or the Bylaws. Such stock may be retired at the discretion of the Board, and if retired, shall be retired at book value not to exceed its par value.

Class E Common Stock may be issued for any lawful purpose subject to a plan adopted by the Board. Class E Common Stock has no voting rights except to the extent voting rights are granted to the Class E Common Stock pursuant to the Act, the FCA regulations, or the Bylaws. Such stock may be retired at the discretion of the Board, and if retired, shall be retired at book value, not to exceed its par value.

D. **Other Equity:** OFIs make cash purchases of participation certificates and are required to capitalize their loans. At December 31, 2022, 2021, and 2020, the OFIs' minimum stock requirement was 2.50 percent, 2.76 percent, and 3.15 percent of Direct Note balances, respectively.

E. **Order of Priority Upon Impairment or Liquidation:**

Impairment

Net losses, to the extent they exceed unallocated surplus, shall, except as otherwise provided in the Act, be treated as impairing stock in the following order:

First, Class B Common Stock, Class C Common Stock, Class D Common Stock, Class E Common Stock, and Participation Certificates, pro rata, in proportion to the number of shares or units of each such class of stock then issued and outstanding, until such stock is fully impaired; and

Second, Preferred Stock, if applicable, in proportion to the number of shares of each class and series thereof then issued and outstanding (applied, as among series that rank differently upon liquidation or dissolution of AgFirst, in reverse order of priority first to the most junior ranking series and then successively to each next most junior ranking series) and consistent with the terms of each such class or series until such stock is fully impaired; and

Third, subject to the Act, as amended, and the regulations thereunder, in such manner as shall be determined by the Board.

Liquidation

In the event of liquidation or dissolution of AgFirst, any assets of AgFirst remaining after payment or retirement of all liabilities shall be distributed in the following order or priority:

First, to the holders of Preferred Stock, if applicable, in proportion to the number of shares of each class and series thereof then issued and outstanding and consistent with the terms of each such series until an amount equal to the liquidation preference provided for in the terms of such series of Preferred Stock has been distributed to such holders (applied, as among series that rank differently upon liquidation or dissolution of AgFirst, in order of priority first to the most senior ranking series and then successively to each next most senior ranking series); and

Second, to the holders of Class B Common Stock, Class C Common Stock, Class D Common Stock, Class E Common Stock, and Participation Certificates, pro rata, in proportion to the number of shares or units of each such class of stock then issued and outstanding, until an amount equal to the aggregate par or face value of all such shares or units has been distributed to such holders; and

Third, in accordance with the memorandum of accounting established in the Agreement and Plan of Consolidation between The Farm Credit Bank of Columbia and The Farm Credit Bank of Baltimore, dated as of October 31, 1994; and

Fourth, all remaining assets of AgFirst after such distributions shall be to the extent practicable distributed to all stockholders and holders of Participation Certificates on a patronage basis.

F. **Regulatory Capitalization Requirements and Restrictions:** An FCA regulation empowers it to direct a transfer of funds or equities by one or more System institutions to another System institution under specified circumstances. The Bank has not been called upon to initiate any transfers and is not aware of any proposed action under this regulation.

The capital regulations ensure that the System's capital requirements are comparable to the Basel III framework and the standardized approach that the federal banking regulatory agencies have adopted. Regulatory ratios include common equity tier 1 (CET1) capital, tier 1 capital, and total regulatory capital risk-based ratios. The regulations also include a tier 1 leverage ratio which includes an unallocated retained earnings (URE) and URE equivalents (UREE) component. The permanent capital ratio (PCR) remains in effect.

The ratios are calculated using three-month average daily balances, in accordance with FCA regulations, as follows:

- The CET1 capital ratio is the sum of 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, and paid-in capital, less certain regulatory required deductions including the amount of investments in other System institutions, divided by average risk-adjusted assets.
- The tier 1 capital ratio is CET1 capital plus non-cumulative perpetual preferred stock, divided by average risk-adjusted assets.
- The total regulatory capital ratio is tier 1 capital plus other required borrower stock 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, and allowance for loan losses and reserve for unfunded commitments under certain limitations less certain investments in other System institutions under the corresponding deduction approach, divided by average risk-adjusted assets.
- The 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 investments in other System institutions, divided by PCR risk-adjusted assets.
- The tier 1 leverage ratio is tier 1 capital, divided by average total assets less regulatory deductions to tier 1 capital.
- The URE and UREE component of the tier 1 leverage ratio is unallocated retained earnings, paid-in capital, and allocated surplus not subject to revolvement less certain regulatory required deductions including the amount of allocated investments in other System institutions divided by average total assets less regulatory deductions to tier 1 capital.

The following sets forth the regulatory capital ratios:

Ratio	Minimum Requirement	Capital Conservation Buffer	Minimum Requirement with Capital Conservation Buffer	Capital Ratios as of December 31, 2022	2021	2020
Risk-adjusted ratios:						
CET1 Capital	4.50%	2.50%	7.00%	15.32%	18.47%	18.99%
Tier 1 Capital	6.00%	2.50%	8.50%	15.32%	18.70%	19.36%
Total Regulatory Capital	8.00%	2.50%	10.50%	15.46%	18.85%	19.51%
Permanent Capital	7.00%	0.00%	7.00%	15.34%	18.73%	19.39%
Non-risk-adjusted ratios:						
Tier 1 Leverage*	4.00%	1.00%	5.00%	6.09%	6.87%	7.09%
URE and UREE Leverage	1.50%	0.00%	1.50%	5.37%	6.09%	6.18%

**The Tier 1 Leverage Ratio must include a minimum of 1.50% of URE and URE Equivalents.*

If the capital ratios fall below the minimum regulatory requirements, including the buffer amounts, capital distributions (equity redemptions, dividends, and patronage) and discretionary senior executive bonuses are restricted or prohibited without prior FCA approval.

G. **Accumulated Other Comprehensive Income:** The following presents activity related to AOCI for the periods presented.

	Changes in Accumulated Other Comprehensive Income by Component *(a)*		
	For the Year Ended December 31,		
(dollars in thousands)	**2022**	**2021**	**2020**
Investment Securities:			
Balance at beginning of period	$ 22,007	$ 190,529	$ 52,324
OCI before reclassifications	(1,016,190)	(168,192)	145,420
Amounts reclassified from AOCI	—	(330)	(7,215)
Net current period OCI	(1,016,190)	(168,522)	138,205
Balance at end of period	$ (994,183)	$ 22,007	$ 190,529
Cash Flow Hedges:			
Balance at beginning of period	$ 201	$ 287	$ 533
OCI before reclassifications	(79)	69	—
Amounts reclassified from AOCI	(122)	(155)	(246)
Net current period OCI	(201)	(86)	(246)
Balance at end of period	$ —	$ 201	$ 287
Employee Benefit Plans:			
Balance at beginning of period	$ (3,610)	$ (4,954)	$ (4,374)
OCI before reclassifications	3,195	494	(1,170)
Amounts reclassified from AOCI	700	850	590
Net current period OCI	3,895	1,344	(580)
Balance at end of period	$ 285	$ (3,610)	$ (4,954)
Total AOCI:			
Balance at beginning of period	$ 18,598	$ 185,862	$ 48,483
OCI before reclassifications	(1,013,074)	(167,629)	144,250
Amounts reclassified from AOCI	578	365	(6,871)
Net current period OCI	(1,012,496)	(167,264)	137,379
Balance at end of period	$ (993,898)	$ 18,598	$ 185,862

	Reclassifications Out of Accumulated Other Comprehensive Income *(b)*			
	For the Year Ended December 31,			
(dollars in thousands)	**2022**	**2021**	**2020**	**Income Statement Line Item**
Investment Securities:				
Sales gains & losses	$ —	$ 330	$ 7,215	Gains (losses) on investments, net
Net amounts reclassified	—	330	7,215	
Cash Flow Hedges:				
Interest income	$ 201	$ 86	$ 246	Interest income on investment securities
(Losses) gains on other transactions	(79)	69	—	(Losses) gains on other transactions
Net amounts reclassified	$ 122	$ 155	$ 246	
Employee Benefit Plans:				
Periodic pension costs	$ (700)	$ (850)	$ (590)	See Note 9, *Employee Benefit Plans*
Net amounts reclassified	$ (700)	$ (850)	$ (590)	
Reclassifications for the period	$ (578)	$ (365)	$ 6,871	

(a) Amounts in parentheses indicate debits to AOCI.
(b) Amounts in parentheses indicate debits to profit/loss.

Note 8 — Fair Value Measurement

Fair value is defined 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.

Accounting guidance establishes a hierarchy for disclosure of fair value measurements to maximize the use of observable inputs, that is, inputs that reflect the assumptions market participants would use in pricing an asset or liability based on market data obtained from sources independent of the reporting entity. The hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. A financial instrument's categorization within the hierarchy tiers is based upon the lowest level of input that is significant to the fair value measurement. See Note 2, *Summary of Significant Accounting Policies*, Subsection K, *Valuation Methodologies*, for further information.

Estimating the fair value of equity investments in other Farm Credit institutions is not practicable because the stock is not traded. The net investment is carried at cost.

The classifications within the fair value hierarchy are as follows:

Level 1
Level 1 assets consist of assets held in trust funds related to deferred compensation and supplemental retirement plans. The trust funds include investments in securities that are actively traded and have quoted net asset value prices that are directly observable in the marketplace. These funds may be redeemed on any business day on which the New York Stock Exchange is open for regular trading.

For cash and cash equivalents, the carrying value is primarily utilized as a reasonable estimate of fair value.

Level 2
The fair value of substantially all investment securities is determined from third-party valuation services that estimate current market prices. Inputs and assumptions related to third-party market valuation services are typically observable in the marketplace. Such services incorporate prepayment assumptions and underlying mortgage- or asset-backed collateral information to generate cash flows that are discounted using appropriate benchmark interest rate curves and volatilities. Third-party valuations also incorporate information regarding broker/dealer quotes, available trade information, historical cash flows, credit ratings, and other market information. Such valuations represent an estimated exit price, or price to be received by a seller in active markets to sell the investment securities to a willing participant.

Level 2 assets include investments in U.S. government and agency mortgage-backed securities and U.S. agency debt securities, all of which use unadjusted values from third parties or internal pricing models. The underlying loans for these investment securities are residential mortgages or commercial loans.

Also included are non-agency ABSs, federal funds sold, securities purchased under resale agreements, and other highly-liquid funds, all of which are non-exchange-traded instruments. The market value of these federal funds sold and other instruments that are highly-liquid, readily convertible to cash, and short-term in nature is generally their face value, plus accrued interest.

Level 3
Because no active market exists for the Bank's loans, fair value is estimated by discounting the expected future cash flows using interest rates at which similar loans would currently be made to borrowers with similar credit risk. For purposes of determining fair value of accruing loans, the portfolio is segregated into pools of loans with homogeneous characteristics based upon repricing and credit risk. Expected future cash flows and interest rates reflecting appropriate credit risk are separately determined for each individual pool.

Fair values of loans in a nonaccrual status are estimated to be the carrying amount of the loan less specific reserves. Certain loans evaluated for impairment under FASB guidance have fair values based upon the underlying collateral, as the loans were collateral-dependent. Specific reserves were established for these loans when the value of the collateral, less estimated cost to sell, was less than the principal balance of the loan. 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.

For investments in debt securities, fair value is estimated by discounting expected future cash flows using prevailing rates for similar instruments at the measurement date.

Other property owned is classified as a Level 3 asset. The fair value is generally determined using formal appraisals of each individual property. These assets are held for sale. Costs to sell represent transaction costs and are not included as a component of the fair value of other property owned. Other property owned consists primarily of real and personal property acquired through foreclosure or deed in lieu of foreclosure and is carried as an asset held for sale, which is generally not its highest and best use. These properties are part of the Bank's credit risk mitigation efforts, not its ongoing business. In addition, FCA regulations require that these types of property be disposed of within a reasonable period of time.

Systemwide Debt Securities are not all traded in the secondary market and those that are traded may not have readily available quoted market prices. Therefore, the fair value of the instruments is estimated by calculating the discounted value of the expected future cash flows. The discount rates used are based on the sum of quoted market yields for the Treasury yield curve and an estimated yield-spread relationship between Systemwide Debt Securities and Treasury securities. An appropriate yield-spread is estimated, taking into consideration selling group member (banks and securities dealers) yield indications, observed new GSE debt security pricing, and pricing levels in the related USD interest rate swap market.

Fair values are estimated at each period end date for assets and liabilities measured at fair value on a recurring basis. Other Financial Instruments are not measured at fair value in the statement of financial position, but their fair values are estimated as of each period end date. The following tables summarize the carrying amounts of these assets and liabilities at period end, and their related fair values.

	December 31, 2022				
(dollars in thousands)	**Total Carrying Amount**	**Level 1**	**Level 2**	**Level 3**	**Total Fair Value**
Recurring Measurements					
Assets:					
Investments in debt securities available-for-sale:					
U.S. Govt. Treasury Securities	$ 139,716	$ —	$ 139,716	$ —	$ 139,716
U.S. Govt. Guaranteed	3,979,473	—	3,979,473	—	3,979,473
U.S. Govt. Agency Guaranteed	4,537,545	—	4,537,545	—	4,537,545
Non-Agency ABSs	405,016	—	405,016	—	405,016
Total investments in debt securities available-for-sale	9,061,750	—	9,061,750	—	9,061,750
Cash equivalents	350,000	—	350,000	—	350,000
Assets held in trust funds	16,896	16,896	—	—	16,896
Recurring Assets	$ 9,428,646	$ 16,896	$ 9,411,750	$ —	$ 9,428,646
Nonrecurring Measurements					
Assets:					
Impaired loans	$ 34,161	$ —	$ —	$ 34,161	$ 34,161
Nonrecurring Assets	$ 34,161	$ —	$ —	$ 34,161	$ 34,161
Other Financial Instruments					
Assets:					
Cash	$ 746,392	$ 746,392	$ —	$ —	$ 746,392
Investments in debt securities held-to-maturity	14,058	—	428	13,072	13,500
Loans	31,408,501	—	—	28,008,871	28,008,871
Other Financial Assets	$ 32,168,951	$ 746,392	$ 428	$ 28,021,943	$ 28,768,763
Liabilities:					
Systemwide debt securities	$ 40,139,921	$ —	$ —	$ 37,649,443	$ 37,649,443
Other Financial Liabilities	$ 40,139,921	$ —	$ —	$ 37,649,443	$ 37,649,443

(dollars in thousands)	December 31, 2021 Total Carrying Amount	Level 1	Level 2	Level 3	Total Fair Value
Recurring Measurements					
Assets:					
Investments in debt securities available-for-sale:					
U.S. Govt. Treasury Securities	$ 342,113	$ —	$ 342,113	$ —	$ 342,113
U.S. Govt. Guaranteed	4,165,087	—	4,165,087	—	4,165,087
U.S. Govt. Agency Guaranteed	4,456,435	—	4,456,435	—	4,456,435
Non-Agency ABSs	353,937	—	353,937	—	353,937
Total investments in debt securities available-for-sale	9,317,572	—	9,317,572	—	9,317,572
Cash equivalents	400,000	—	400,000	—	400,000
Assets held in trust funds	20,426	20,426	—	—	20,426
Recurring Assets	$ 9,737,998	$ 20,426	$ 9,717,572	$ —	$ 9,737,998
Nonrecurring Measurements					
Assets:					
Impaired loans	$ 31,571	$ —	$ —	$ 31,571	$ 31,571
Nonrecurring Assets	$ 31,571	$ —	$ —	$ 31,571	$ 31,571
Other Financial Instruments					
Assets:					
Cash	$ 625,288	$ 625,288	$ —	$ —	$ 625,288
Investments in debt securities held-to-maturity	19,133	—	467	21,165	21,632
Loans	28,483,964	—	—	28,315,436	28,315,436
Other Financial Assets	$ 29,128,385	$ 625,288	$ 467	$ 28,336,601	$ 28,962,356
Liabilities:					
Systemwide debt securities	$ 36,356,771	$ —	$ —	$ 36,110,567	$ 36,110,567
Other Financial Liabilities	$ 36,356,771	$ —	$ —	$ 36,110,567	$ 36,110,567

	December 31, 2020				
(dollars in thousands)	Total Carrying Amount	Level 1	Level 2	Level 3	Total Fair Value
Recurring Measurements					
Assets:					
Investments in debt securities available-for-sale:					
U.S. Govt. Treasury Securities	$ 318,870	$ —	$ 318,870	$ —	$ 318,870
U.S. Govt. Guaranteed	4,361,424	—	4,361,424	—	4,361,424
U.S. Govt. Agency Guaranteed	3,155,557	—	3,155,557	—	3,155,557
Non-Agency ABSs	649,499	—	649,499	—	649,499
Total investments in debt securities available-for-sale	8,485,350	—	8,485,350	—	8,485,350
Cash equivalents	520,000	—	520,000	—	520,000
Assets held in trust funds	18,463	18,463	—	—	18,463
Recurring Assets	$ 9,023,813	$ 18,463	$ 9,005,350	$ —	$ 9,023,813
Nonrecurring Measurements					
Assets:					
Impaired loans	$ 12,921	$ —	$ —	$ 12,921	$ 12,921
Nonrecurring Assets	$ 12,921	$ —	$ —	$ 12,921	$ 12,921
Other Financial Instruments					
Assets:					
Cash	$ 693,685	$ 693,685	$ —	$ —	$ 693,685
Investments in debt securities held-to-maturity	30,078	—	1,099	34,136	35,235
Loans	26,193,811	—	—	26,505,373	26,505,373
Other Financial Assets	$ 26,917,574	$ 693,685	$ 1,099	$ 26,539,509	$ 27,234,293
Liabilities:					
Systemwide debt securities	$ 33,356,213	$ —	$ —	$ 33,459,724	$ 33,459,724
Other Financial Liabilities	$ 33,356,213	$ —	$ —	$ 33,459,724	$ 33,459,724

Uncertainty in Measurements of Fair Value

Discounted cash flow or similar modeling techniques are generally used to determine the recurring fair value measurements for Level 3 assets and liabilities. Use of these techniques requires determination of relevant inputs and assumptions, some of which represent significant unobservable inputs as indicated in the tables that follow. Accordingly, changes in these unobservable inputs may have a significant impact on fair value.

Certain of these unobservable inputs will (in isolation) have a directionally consistent impact on the fair value of the instrument for a given change in that input. Alternatively, the fair value of the instrument may move in an opposite direction for a given change in another input. Where multiple inputs are used within the valuation technique of an asset or liability, a change in one input in a certain direction may be offset by an opposite change in another input having a potentially muted impact to the overall fair value of that particular instrument. Additionally, a change in one unobservable input may result in a change to another unobservable input (that is, changes in certain inputs are interrelated with one another), which may counteract or magnify the fair value impact.

Investments in Debt Securities

The fair values of predominantly all Level 3 investments in debt securities have consistent inputs, valuation techniques and correlation to changes in underlying inputs. The models used to determine fair value for these instruments use certain significant unobservable inputs within a discounted cash flow or market comparable pricing valuation technique. Such inputs generally include discount rate components including risk premiums, prepayment estimates, default estimates and loss severities.

These Level 3 assets would decrease (increase) in value based upon an increase (decrease) in discount rates, defaults, or loss severities. Conversely, the fair value of these assets would generally increase (decrease) in value if the prepayment input were to increase (decrease).

Generally, a change in the assumption used for defaults is accompanied by a directionally similar change in the risk premium component of the discount rate (specifically, the portion related to credit risk) and a directionally opposite change in the assumption used for prepayments. Unobservable inputs for loss severities do not normally increase or decrease based on movements in the other significant unobservable inputs for these Level 3 assets.

Inputs to Valuation Techniques

Management determines the Bank's valuation policies and procedures. Internal valuation processes are calibrated annually by an independent consultant. Fair value measurements are analyzed on a periodic basis. Documentation is obtained for third party information, such as pricing, and periodically evaluated alongside internal information and pricing.

Quoted market prices are generally not available for the instruments presented below. Accordingly, fair values are based on judgments regarding anticipated cash flows, future expected loss experience, current economic conditions, risk characteristics of various financial instruments, and other factors. These estimates involve uncertainties and matters of judgment, and therefore cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

Quantitative Information about Recurring and Nonrecurring Level 3 Fair Value Measurements
With regard to nonrecurring measurements for impaired loans and other property owned, 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 other property owned and take into account 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**
Debt securities available-for-sale	Discounted cash flow	Constant prepayment rate Probability of default Loss severity
	Quoted prices	Price for similar security
	Vendor priced	*
Federal funds sold, securities purchased under resale agreements and other	Carrying value	Par/principal and appropriate interest yield

Information about Other Financial Instrument Fair Value Measurements

	Valuation Technique(s)	**Input**
Loans	Discounted cash flow	Prepayment forecasts Probability of default Loss severity
Cash and cash equivalents	Carrying value	Par/principal and appropriate interest yield
Debt securities held-to-maturity	Discounted cash flow	Constant prepayment rate Prepayment rates Probability of default Risk-adjusted spread Loss severity
	Quoted prices	Price for similar security
	Vendor priced	*
Systemwide debt securities	Discounted cash flow	Benchmark yield curve Derived yield spread Own credit risk
Cash collateral	Carrying value	Par/principal and appropriate interest yield

**The inputs used to estimate fair value for assets and liabilities that are obtained from third-party vendors are not included in the table as the specific inputs applied are not provided by the vendor.*

Note 9 — Employee Benefit Plans

The Bank participates in three District-sponsored qualified benefit plans. First is a multiemployer defined benefit pension plan, the AgFirst Farm Credit Retirement Plan, which is a final average pay plan (FAP Plan). Second, the Bank participates in a multiemployer defined benefit other postretirement benefits plan (OPEB Plan), the FCBA Retiree and Disabled Medical and Dental Plan. Third is a defined contribution 401(k) plan (401(k) Plan), the FCBA 401(k) Plan. The risks of participating in these multiemployer plans are different from single-employer plans in the following aspects:

1. Assets contributed to multiemployer plans by one employer may be used to provide benefits to employees of other participating employers.
2. If a participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
3. If the Bank chooses to stop participating in some of its multiemployer plans, the Bank may be required to contribute to eliminate the underfunded status of the plan.

The District's multiemployer plans are not subject to ERISA and no Form 5500 is required to be filed. As such, the following information is neither available for nor applicable to the plans:

1. The Employer Identification Number (EIN) and three-digit Pension Plan Number.
2. The most recent Pension Protection Act (PPA) zone status. Among other factors, plans in the red zone are generally less than 65 percent funded, plans in the yellow zone are less than 80 percent funded, and plans in the green zone are at least 80 percent funded.
3. The "FIP/RP Status" indicating whether a financial improvement plan (FIP) or a rehabilitation plan (RP) is either pending or has been implemented.
4. The expiration date(s) of collective-bargaining agreement(s).

The FAP Plan covers employees hired prior to January 1, 2003 and includes other District employees that are not employees of the Bank. It is accounted for as a multiemployer plan. The related net benefit plan obligations are not included in the Bank's Balance Sheets but are included in the Combined Balance Sheets for the AgFirst District. FAP Plan expenses included in employee benefit costs on the Bank's Statements of Comprehensive Income were $3.5 million for 2022, $6.9 million for 2021, and $5.2 million for 2020. At December 31, 2022, 2021, and 2020, the total liability balance for the FAP Plan was $32.6 million, $39.1 million, and $114.4 million, respectively. The FAP Plan was 95.81 percent, 96.17 percent, and 89.63 percent funded to the projected benefit obligation as of December 31, 2022, 2021, and 2020, respectively.

In addition to providing pension benefits, the Bank provides certain medical and dental benefits for eligible retired employees through the OPEB Plan. Substantially all of the Bank employees may become eligible for the benefits if they reach early retirement age while working for the Bank. Early retirement age is defined as a minimum of age 55 and 10 years of service. Employees hired after December 31, 2002, and employees who separate from service between age 50 and age 55, are required to pay the full cost of their retiree health insurance coverage. In addition, substantially all District employees who retired on or before December 1, 2007, after reaching early retirement age are provided retiree life insurance benefits. The OPEB Plan includes other Farm Credit System employees that are not employees of the Bank or District and is accounted for as a multiemployer plan. The related net benefit plan obligations are not included in the Bank's Balance Sheets but are included in the Combined Statement of Condition for the Farm Credit System. The OPEB Plan is unfunded with expenses paid as incurred. Postretirement benefits other than pensions included in employee benefit costs on the Bank's Statements of Comprehensive Income were $1.1 million for 2022, $972 thousand for 2021, and $944 thousand for 2020. The total AgFirst District liability balance for the OPEB Plan presented in the Farm Credit System Combined Statement of Condition was $167.9 million, $209.6 million, and $220.0 million at December 31, 2022, 2021, and 2020, respectively.

The Bank also participates in the 401(k) Plan, which qualifies as a 401(k) plan as defined by the Internal Revenue Code. For employees hired on or prior to December 31, 2002, the Bank contributes $0.50 for each $1.00 of the employee's first 6.00 percent of contribution (based on total compensation) up to the maximum employer contribution of 3.00 percent of total compensation. For employees hired on or after January 1, 2003, the Bank contributes $1.00 for each $1.00 of the employee's first 6.00 percent of contribution up to the maximum employer contribution of 6.00 percent of total compensation. Beginning in 2015, contributions include an additional 3.00 percent of eligible compensation for employees hired after December 31, 2002. Employee deferrals are not to exceed the maximum deferral as determined and adjusted by the Internal Revenue Service. The 401(k) Plan costs are expensed as funded. Employer contributions to this plan included in employee benefit costs were $4.7 million, $4.1 million, and $3.7 million, for the years ended December 31, 2022, 2021, and 2020, respectively.

In addition to the multiemployer plans above, the Bank sponsors a single employer defined benefit supplemental retirement plan and offers a FCBA supplemental 401(k) plan for certain key employees. These plans are nonqualified; therefore, the associated liabilities are included in the Bank's Balance Sheets in Other Liabilities. The supplemental retirement plan is unfunded and had a projected benefit obligation of $12.0 million and a net under-funded status of $12.0 million at December 31, 2022. Assumptions used to determine the projected benefit obligation as of that date included a discount rate of 5.20 percent and a rate of compensation increase of 6.00 percent. Expenses of these nonqualified plans included in noninterest expenses were $1.5 million, $1.7 million, and $1.6 million for 2022, 2021, and 2020, respectively.

FASB guidance further requires the determination of the fair value of plan assets and recognition of actuarial gains and losses, prior service costs or credits, and transition assets or obligations as a component of AOCI. Under the guidance, these amounts are subsequently recognized as components of net periodic benefit costs over time. For 2022, 2021, and 2020, $3.9 million, $1.3 million, and $580 thousand, respectively, have been recognized as a net credit, a net credit, and a net debit to AOCI to reflect these elements.

Additional information for the multiemployer plans may be found in the Notes to the Annual Information Statement of the Farm Credit System.

Note 10 — Related Party Transactions

In the ordinary course of business, the Bank enters into loan transactions with related parties which may include loans to officers and directors, their immediate families and other organizations with which such persons may be affiliated. There were no material loans outstanding with related parties for any of the periods presented.

As discussed in Note 1, *Organization and Operations*, the Bank lends funds to the District Associations primarily to fund their loan portfolios. Further disclosure regarding these related party transactions is found in Note 3, *Loans and Allowance for Loan Losses*; Note 7, *Shareholders' Equity*; and Note 11, *Commitments and Contingencies*.

Interest income recognized, net of participations sold, on Direct Notes receivable from District Associations and OFIs was $559.8 million, $448.0 million, and $478.5 million for 2022, 2021, and 2020, respectively.

Note 11 — Commitments and Contingencies

From time to time, legal actions are pending against the Bank in which claims for money damages are asserted. On at least a quarterly basis, the Bank assesses its liabilities and contingencies in connection with outstanding legal proceedings utilizing the latest information available. While the outcome of legal proceedings is inherently uncertain, on the basis of information presently available, management and legal counsel are of the opinion that the ultimate liability, if any, from these actions, would not be material in relation to the financial position of the Bank. Because it is remote that the Bank will incur a loss or the loss is not estimable, no liability has been recorded for any claims that may be pending.

In the normal course of business, the Bank may participate in credit related financial instruments with off-balance-sheet risk to satisfy the financing needs of its borrowers or the borrowers of the District Associations. These financial instruments may include commitments to extend credit, letters of credit, or various guarantees. The instruments involve, to varying degrees, elements of credit risk in excess of the amount recognized in the financial statements. Commitments to extend credit are agreements to lend to a borrower as long as there is not a violation of any condition established in the contract. Commercial letters of credit are agreements to pay a beneficiary under conditions specified in the letter of credit. Commitments and letters of credit generally have fixed expiration dates or other termination clauses and may require payment of a fee.

Since many of these commitments are expected to expire without being drawn upon, the total commitments do not necessarily represent future cash requirements. However, these financial instruments have off-balance-sheet credit risk because their amounts could be drawn upon at the option of the borrower. The credit risk associated with issuing commitments and letters of credit is substantially the same as that involved in extending loans to borrowers and the same credit policies are applied by management. Upon fully funding a commitment, the credit risk amounts are equal to the contract amounts, assuming that borrowers fail completely to meet their obligations and the loan collateral is of no value. The amount of collateral obtained, if deemed necessary upon extension of credit, is based on management's credit evaluation of the borrower. At period end, $7.967 billion of commitments to extend credit were outstanding with a related reserve for unfunded commitments of $1.5 million included in Other Liabilities in the Balance Sheets. No reserve for unfunded commitments is established for commitments related to the Bank's Direct Note portfolio.

The Bank also participates in standby letters of credit to satisfy the financing needs of its borrowers. These letters of credit are irrevocable agreements to guarantee payments of specified financial obligations. At period end, standby letters of credit outstanding totaled $83.2 million, with expiration dates ranging from January 2023 to September 2041. The maximum potential amount of future payments the Bank may be required to make under these existing guarantees is $83.2 million.

Under the Farm Credit Act, each System Bank is primarily liable for its portion of Systemwide bond and discount note obligations. Additionally, the four banks are jointly and severally liable for the bonds and notes of the other System Banks under the terms of the Joint and Several Liability Allocation Agreement. Published in the Federal Register, the agreement prescribes the payment mechanisms to be employed in the event one of the banks is unable to meet its debt obligations.

In the event a bank is unable to timely pay principal or interest on an insured debt obligation for which it is primarily liable, the FCSIC must expend amounts available in the Insurance Fund to ensure the timely payment of principal and interest on the insured debt obligation. The provisions of the Farm Credit Act providing for joint and several liability of the banks on the obligation cannot be invoked until the amounts in the Insurance Fund have been exhausted. At December 31, 2022, the assets of the Insurance Fund totaled $6.673 billion. However, because of other mandatory and discretionary uses of the Insurance Fund, there is no assurance that there will be sufficient funds to pay the principal or interest on the insured debt obligation.

Once the joint and several liability provisions are initiated, the FCA is required to make calls to satisfy the liability first on all non-defaulting banks in the proportion that each non-defaulting bank's available collateral (collateral in excess of the aggregate of the bank's collateralized obligations) bears to the aggregate available collateral of all non-defaulting banks. If these calls do not satisfy the liability, then a further call would be made in proportion to each non-defaulting bank's remaining assets. Upon making a call on non-defaulting banks with respect to a Systemwide Debt Security issued on behalf of a defaulting bank, the FCA is required to appoint the FCSIC as the receiver for the defaulting bank. The receiver would be required to expeditiously liquidate the bank.

AgFirst did not anticipate making any payments on behalf of its co-obligors under the Joint and Several Liability Allocation Agreement for any of the periods presented. The total amounts outstanding under the agreement are as follows:

	December 31,		
(dollars in billions)	2022	2021	2020
Total System bonds and notes	$ 389.977	$ 352.823	$322.655

Note 12 — Additional Financial Information

Quarterly Financial Information (Unaudited)

	2022				
(dollars in thousands)	First	Second	Third	Fourth	Total
Net interest income	$ 155,927	$ 152,902	$ 150,968	$ 145,738	$ 605,535
Provision for (reversal of) allowance for loan losses	1,277	562	1,039	4,826	7,704
Noninterest income (expense), net	(41,950)	(48,732)	(53,452)	(41,737)	(185,871)
Net income	$ 112,700	$ 103,608	$ 96,477	$ 99,175	$ 411,960

	2021				
(dollars in thousands)	First	Second	Third	Fourth	Total
Net interest income	$ 160,713	$ 160,621	$ 162,950	$ 164,114	$ 648,398
Provision for (reversal of) allowance for loan losses	1,084	831	760	877	3,552
Noninterest income (expense), net	(35,742)	(43,236)	(45,262)	(34,600)	(158,840)
Net income	$ 123,887	$ 116,554	$ 116,928	$ 128,637	$ 486,006

	2020				
(dollars in thousands)	First	Second	Third	Fourth	Total
Net interest income	$ 113,649	$ 139,723	$ 161,372	$ 166,603	$ 581,347
Provision for (reversal of) allowance for loan losses	38	875	(399)	(6,734)	(6,220)
Noninterest income (expense), net	(41,622)	(54,945)	(42,356)	(30,966)	(169,889)
Net income	$ 71,989	$ 83,903	$ 119,415	$ 142,371	$ 417,678

Offsetting of Financial and Derivative Assets

(dollars in thousands)	December 31, 2022	2021	2020
Reverse repurchase and similar arrangements	$ 350,000	$ 400,000	$ 520,000
Gross Amount of Recognized Assets	350,000	400,000	520,000
Reverse repurchase and similar arrangements	—	—	—
Gross Amounts Offset in the Balance Sheets	—	—	—
Net Amounts of Assets Presented in the Balance Sheets	$ 350,000	$ 400,000	$ 520,000
Financial Instruments	(350,000)	(400,000)	(520,000)
Cash Collateral Received	—	—	—
Gross Amounts Not Offset in the Balance Sheets	(350,000)	(400,000)	(520,000)
Net Amount	$ —	$ —	$ —

There were no liabilities subject to master netting arrangements or similar agreements during the reporting periods.

The reverse repurchase agreements are accounted for as collateralized lending.

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 AgFirst District. The Bank separately publishes in a report certain unaudited combined financial information of the AgFirst District, including a statement of condition and statement of comprehensive income, which can be found on the Bank's website at ***www.agfirst.com***.

Note 13 — Subsequent Events

The Bank evaluated subsequent events through March 9, 2023, which was the date the financial statements were issued.

Following approval by AgFirst, the FCA, and shareholders, effective January 1, 2023, Cape Fear Farm Credit, ACA merged with and into AgCarolina Farm Credit, ACA. Combined total assets for these two Associations approximate $2.6 billion, or 9.1 percent of the combined Association total assets, as of December 31, 2022.

On February 17, 2023, one Association with total assets of $185.9 million was operating under a special credit agreement with the Bank pursuant to its GFA. The GFA events of default are not expected to have a significant adverse impact on the Bank's or District's financial condition or results of operations. This Direct Note was subsequently downgraded to OAEM as a result of the events of default.

Additional Required Regulatory Capital Disclosures

The following disclosures contain regulatory disclosures as required for the Bank under Regulation §628.62 and §628.63 for risk-adjusted ratios: common equity tier 1 capital, tier 1 capital and total capital ratios. As required, these disclosures are made available for at least three years and can be accessed via AgFirst's website at www.agfirst.com.

DISCLOSURE MAP

Disclosure Requirement	Description	Annual Report Reference
Scope of Application	Corporate entity and structure	Note 1
	Restrictions of capital	Note 7, Capital section of MD&A
Capital Structure	Terms and conditions of capital instruments	Note 7
Credit Risk: General	Qualitative disclosures	Note 2; Note 3
	Distribution of risk exposure	Note 3; Note 4
	Loans by loan type	Note 3
	Major industry type	Note 3, Loan Portfolio section of MD&A
	Composition of Direct Notes	Direct Notes section of MD&A
	Allowance for Loan Loss Reconciliation	Note 3
Interest Rate Risk for Non-Trading Activities	Quantitative & qualitative disclosure requirements	Interest Rate Risk Management section of MD&A

SCOPE OF APPLICATION

AgFirst Farm Credit Bank (AgFirst or the Bank) is one of the four banks of the Farm Credit System (System), a nationwide system of cooperatively owned banks and associations, established by Congress and subject to the provisions of the Farm Credit Act of 1971, as amended. The Bank prepares financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) and prevailing practices within the financial services industry.

As of December 31, 2022, the AgFirst District consisted of the Bank and 18 District Associations. All 18 were structured as Agricultural Credit Association (ACA) holding companies, with Production Credit Association (PCA) and Federal Land Credit Association (FLCA) subsidiaries. AgFirst is owned jointly by these 18 Associations, certain Other Financing Institutions (OFIs), and other System institutions. The Bank does not have any subsidiaries requiring consolidation; therefore, there are no consolidated entities for which the total capital requirement is deducted, there are no restrictions on transfer of funds or total capital with other consolidated entities and no subsidiary exists which is below the minimum total capital requirement individually or when aggregated at the Bank's level. In conjunction with other System entities, the Bank jointly owns certain service organizations: the Federal Farm Credit Banks Funding Corporation (Funding Corporation), the FCS Building Association (FCSBA), and the Farm Credit Association Captive Insurance Corporation (Captive). Certain of the Bank's investments in other System institutions, including the investment in the Funding Corporation and FCSBA, are deducted from capital for purposes of calculating regulatory capital ratios, as only the institution that issued the equities may count the amount as regulatory capital.

CAPITAL STRUCTURE

Descriptions of the Bank's capitalization requirements, protection mechanisms, regulatory capitalization requirements and restrictions, and equities are included in Note 7, *Shareholders' Equity,* of the Notes to the Financial Statements.

The table below outlines the Bank's capital structure for the capital adequacy calculations as of December 31, 2022:

(dollars in thousands)	Ending Balance	3-Month Average Daily Balance
Common Equity Tier 1 Capital (CET1)		
Common cooperative equities:		
Statutory minimum purchased borrower stock	$ 22	$ 22
Other required member purchased stock	97,421	99,153
Allocated equities:		
Allocated stock subject to retirement	203,096	199,971
Nonqualified allocated surplus subject to retirement	123,413	1,750
Unallocated retained earnings	1,957,897	2,253,676
Paid-in capital	63,668	63,668
Regulatory adjustments and deductions made to CET1*	(83,996)	(81,059)
Total CET1	$ 2,361,521	$ 2,537,181
Additional Tier 1 Capital (AT1)		
Regulatory adjustments and deductions made to AT1	—	—
Total AT1	$ —	$ —
Total Tier 1 Capital	$ 2,361,521	$ 2,537,181
Tier 2 Capital		
Allowance for loan losses	$ 26,070	$ 22,154
Reserve for unfunded commitments	1,497	534
Regulatory adjustments and deductions made to total capital	—	—
Total Tier 2 Capital	$ 27,567	$ 22,688
Total Capital	$ 2,389,088	$ 2,559,869
Reconciliation to Balance Sheets:		
Allowance for loan losses	$ (26,070)	
Reserve for unfunded commitments	(1,497)	
Intra-system investments	83,996	
Accumulated other comprehensive income	(993,898)	
Total Capital per Balance Sheets	$ 1,451,619	

* *Primarily investments in other System institutions.*

CAPITAL ADEQUACY AND CAPITAL BUFFERS

In conjunction with the annual business and financial planning process, the Board of Directors reviews and approves a capital adequacy plan which includes target levels for capital and capital ratio baselines. When reviewing the capital adequacy plan and setting an appropriate target equity level, the Board considers the following: credit risk and allowance levels; quality and quantity of earnings; sufficiency of liquid funds; operational risk; interest rate risk; growth in determining optimal capital levels; the Bank's overall risk profile; capability of management; quality of operating policies, procedures, and internal controls; capital composition; loan volume projections; anticipated future capital needs; and the Bank's capital levels in comparison to regulatory minimum capital standards.

The Board balances the desire to distribute a level of patronage that provides appropriate returns to the Bank's customer/owners with the need to properly capitalize the Bank. The Board may increase or decrease these patronage levels based on its ongoing evaluation of the Bank's business. As a result, there is no assurance that patronage will remain at current levels.

As part of its business planning process, the Bank performs stress tests to examine the Bank's financial condition and performance, including capital levels, under a variety of market and economic environments, including unanticipated loan growth and prolonged periods of financial and loan quality stress. These stress tests illustrate the Bank's ability to continue to maintain compliance with regulatory requirements through severe market conditions while continuing to fulfill the Bank's mission. Results of these stress tests are reviewed with the Board of Directors and the FCA.

The table below outlines the Bank's risk-weighted assets by exposure (including accrued interest of that exposure) as of December 31, 2022. Risk-weighted assets are calculated on a three-month average daily balance.

(dollars in thousands)	Ending Balance	Risk-Weighted Assets
Exposures to:		
Government-sponsored entities, including Direct Notes to Associations	$ 31,584,108	$ 5,369,611
Depository institutions	746,443	93,283
Corporate exposures, including borrower loans and leases	7,624,351	7,327,394
Residential mortgage loans	2,355,624	1,166,201
Past due > 90 days and nonaccrual loans	38,704	50,022
Securitizations	411,234	257,581
Exposures to obligors and other assets	248,513	182,275
Off-balance sheet exposures	8,070,658	2,110,611
Total	$ 51,079,635	$ 16,556,978
Reconciliation to Balance Sheets:		
Off-balance sheet exposures	(8,070,658)	
Allowance for loan losses not risk-weighted	(26,070)	
Intra-system investments not risk-weighted	83,996	
AFS mark to market not risk-weighted	(994,183)	
Total Assets per Balance Sheets	$ 42,072,720	

As of December 31, 2022, the Bank exceeded all capital requirements to which it was subject, including applicable capital buffers. The Bank's risk-adjusted capital ratios exceeded the regulatory minimum levels, including the conservation buffer by at least 4.96 percent. Additionally, the Bank's leverage ratio was 1.09 percent in excess of its required minimum leverage ratio, including the buffer. If the capital ratios fall below the minimum regulatory requirements, including the buffer amounts, capital distributions (equity redemptions, dividends, and patronage) and discretionary senior executive bonuses are restricted or prohibited without prior FCA approval.

The following sets forth the regulatory capital ratios:

Ratio	Minimum Requirement	Capital Conservation Buffer	Minimum Requirement with Capital Conservation Buffer	Capital Ratios as of December 31, 2022	2021	2020
Risk-adjusted ratios:						
CET1 Capital	4.50%	2.50%	7.00%	15.32%	18.47%	18.99%
Tier 1 Capital	6.00%	2.50%	8.50%	15.32%	18.70%	19.36%
Total Capital	8.00%	2.50%	10.50%	15.46%	18.85%	19.51%
Permanent Capital	7.00%	0.00%	7.00%	15.34%	18.73%	19.39%
Non-risk-adjusted ratios:						
Tier 1 Leverage*	4.00%	1.00%	5.00%	6.09%	6.87%	7.09%
URE and UREE Leverage	1.50%	0.00%	1.50%	5.37%	6.09%	6.18%

* *The Tier 1 Leverage Ratio must include a minimum of 1.5% of URE and URE Equivalents.*

CREDIT RISK: GENERAL

System entities have specific lending authorities within their chartered territories. The Bank is subject to credit risk by lending to the District's Federal Land Credit Associations (FLCAs), Production Credit Associations (PCAs) and Agricultural Credit Associations (ACAs) as well as Other Financing Institutions (OFIs). The Bank also purchases participations and syndications and first lien residential mortgage loans. 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 rare circumstances that may not otherwise be reflected in the PD and LGD (flooding, drought, etc.). There was no allowance attributed to a geographic area as of December 31, 2022.

Refer to Note 2, *Summary of Significant Accounting Policies*, of the accompanying financial statements for the Bank's policy for determining past due or delinquency status, policy for placing loans on nonaccrual status, policy for returning loans to accrual status, definition of and policy for identifying impaired loans, description of the methodology used to estimate allowance for loan losses, and policy for charging-off uncollectible amounts. Refer to Note 3, *Loans and Allowance for Loan Losses*, and Note 4, *Investments*, in the Notes to the Financial Statements for quantitative disclosures related to the Bank's credit risk.

CREDIT RISK MITIGATION

Credit Risk Mitigation Related to Loans

The Bank uses various strategies to mitigate credit risk in its lending portfolio. As described in Note 1, *Organization and Operations*, in the Notes to the Financial Statements, a substantial portion of the loan balance is concentrated in notes receivable from the District Associations to fund their earning assets, which collateralize the notes. In addition, the earnings, capital and loan loss reserves of the Associations provide additional layers of protection against losses in their respective retail loan portfolios.

The Bank and District Associations limit their exposure to both borrower and commodity concentrations through the District Associations' and Bank's participation in loans or interests in loans to/from other institutions within the System and outside the System. This also allows the Bank and District Associations to manage growth and capital, and to improve geographic diversification. Concentration risk is reviewed and measured by industry, product, geography and customer limits.

Although neither the Bank nor any other System institution receives any direct government support, credit quality is indirectly enhanced by government support in the form of program payments to borrowers, which improve their ability to honor their commitments.

The following table illustrates credit risk mitigants within AgFirst's loan portfolio which reduce capital requirements as of December 31, 2022:

(dollars in thousands)	Ending Balance	3-Month Average Balance	Risk-Weighted Exposures	% of Total Loans
Loans with unconditional guarantee	$ 8,221	$ 8,363	$ —	— %
Loans with conditional guarantee	618,265	627,112	125,422	2 %
Direct Notes	21,274,539	21,107,674	4,221,535	67 %
Total	$ 21,901,025	$ 21,743,149	$ 4,346,957	69 %

An additional technique to reduce credit risk is AgFirst's monitoring for commodity and geographic concentrations. Commodity and industry categories are based on the Standard Industrial Classification system published by the federal government. This system is used to assign commodity or industry categories based on the largest agricultural commodity of the customer.

The Bank's credit risk associated with its Direct Note portfolio approximates that of the aggregate District Associations' portfolios as a whole. The Associations' credit portfolios are comprised of a number of segments having varying, and in some cases complementary, agricultural characteristics. Excluding accrued interest receivable, at December 31, 2022, the Bank's Direct Note portfolio totaled $21.217 billion and aggregate District Associations' loan portfolios totaled $27.892 billion. For geographic and commodity distributions for the District Associations' total loan portfolio, see *Direct Notes* in the *Loan Portfolio* section in Management's Discussion and Analysis.

The following table illustrates AgFirst's loan portfolio by geographic distribution at December 31, 2022. This table includes the Bank's Direct Notes in total and does not include accrued interest.

AgFirst Loan Portfolio by State*

	At Period End			Year-to-Date Average Balance		
(dollars in thousands)	Outstanding Loans	Unfunded Amounts	Total Exposure	Outstanding Loans	Unfunded Amounts	Total Exposure
North Carolina	$ 1,387,824	$ 232,627	$ 1,620,451	$ 1,330,430	$ 218,198	$ 1,548,628
Georgia	1,089,426	484,153	1,573,579	1,078,100	441,626	1,519,726
Florida	917,726	400,645	1,318,371	706,835	363,909	1,070,744
Texas	677,562	186,539	864,101	584,988	167,644	752,632
Minnesota	379,167	248,718	627,885	379,986	245,345	625,331
South Carolina	508,630	109,060	617,690	489,279	89,002	578,281
Virginia	490,175	113,463	603,638	477,274	113,180	590,454
New York	404,596	176,264	580,860	354,764	137,219	491,983
Pennsylvania	320,082	162,567	482,649	265,345	153,785	419,130
California	324,494	124,765	449,259	346,718	95,458	442,176
Illinois	310,962	118,551	429,513	276,561	112,742	389,303
Ohio	307,225	109,944	417,169	302,885	109,391	412,276
Maryland	301,826	18,996	320,822	286,245	14,118	300,363
Missouri	179,747	116,081	295,828	170,346	122,130	292,476
Louisiana	165,510	115,354	280,864	166,776	120,940	287,716
Indiana	144,804	122,703	267,507	123,517	91,669	215,186
Nebraska	135,760	126,775	262,535	104,921	85,910	190,831
Kentucky	231,208	21,080	252,288	230,514	16,271	246,785
Washington	151,771	85,150	236,921	117,166	72,337	189,503
Mississippi	82,809	134,676	217,485	76,557	93,767	170,324
Kansas	156,741	60,673	217,414	155,066	46,472	201,538
All other states	1,583,406	907,344	2,490,750	1,559,757	806,813	2,366,570
Direct Notes	21,217,281	3,875,178	25,092,459	20,314,452	4,755,546	25,069,998
Total loans	$ 31,468,732	$ 8,051,306	$ 39,520,038	$ 29,898,482	$ 8,473,472	$ 38,371,954

* *The distribution is based on the state in which the borrower is headquartered and may not be representative of their operations and business activities.*

The following table shows the various major commodity groups in the portfolio based on borrower eligibility at December 31, 2022. This table includes the Bank's Direct Notes in total and does not include accrued interest.

AgFirst Loan Portfolio by Commodity Group Based on Eligibility

	At Period End			Year-to-Date Average Balance		
(dollars in thousands)	Outstanding Loans	Unfunded Amounts	Total Exposure	Outstanding Loans	Unfunded Amounts	Total Exposure
Rural Home Loans	$ 3,044,026	$ 186,198	$ 3,230,224	$ 2,919,055	$ 186,827	$ 3,105,882
Utilities	1,593,497	888,346	2,481,843	1,366,281	864,123	2,230,404
Processing	1,460,338	976,400	2,436,738	1,349,590	897,278	2,246,868
Forestry	1,100,146	496,377	1,596,523	1,010,974	430,701	1,441,675
Field Crops	444,104	246,169	690,273	409,369	193,873	603,242
Tree Fruits and Nuts	320,922	214,224	535,146	306,574	176,775	483,349
Grains	218,366	241,855	460,221	221,194	148,230	369,424
Dairy	193,912	89,537	283,449	192,106	71,762	263,868
Nursery/Greenhouse	220,968	50,852	271,820	219,986	50,122	270,108
Swine	221,567	41,780	263,347	172,545	60,700	233,245
Other	1,433,605	744,390	2,177,995	1,416,356	637,535	2,053,891
Direct Notes	21,217,281	3,875,178	25,092,459	20,314,452	4,755,546	25,069,998
Total loans	$ 31,468,732	$ 8,051,306	$ 39,520,038	$ 29,898,482	$ 8,473,472	$ 38,371,954

The following table segregates loans based upon repayment dependency by commodity at December 31, 2022. This table includes the Bank's Direct Notes in total and does not include accrued interest.

AgFirst Loan Portfolio by Commodity Group Based on Repayment Dependency

	At Period End			Year-to-Date Average Balance		
(dollars in thousands)	Outstanding Loans	Unfunded Amounts	Total Exposure	Outstanding Loans	Unfunded Amounts	Total Exposure
Non-Farm Income	$ 3,417,636	$ 224,013	$ 3,641,649	$ 3,286,926	$ 229,291	$ 3,516,217
Processing	1,453,930	1,003,702	2,457,632	1,348,755	901,630	2,250,385
Utilities	1,560,791	881,478	2,442,269	1,353,338	856,877	2,210,215
Forestry	986,737	471,552	1,458,289	891,231	402,374	1,293,605
Field Crops	478,750	271,471	750,221	433,660	216,353	650,013
Grains	236,007	251,892	487,899	244,437	156,732	401,169
Tree Fruits and Nuts	290,971	174,193	465,164	276,939	151,097	428,036
Dairy	190,778	87,662	278,440	187,792	70,809	258,601
Swine	185,483	41,780	227,263	134,288	60,700	194,988
Other	1,450,368	768,385	2,218,753	1,426,664	672,063	2,098,727
Direct Notes	21,217,281	3,875,178	25,092,459	20,314,452	4,755,546	25,069,998
Total loans	$ 31,468,732	$ 8,051,306	$ 39,520,038	$ 29,898,482	$ 8,473,472	$ 38,371,954

A significant source of liquidity for the Bank is the repayments of loans. The following table presents the contractual maturity distribution of loans by loan type at the latest period end. This table does not include accrued interest.

	December 31, 2022				
(dollars in thousands)	Due Less Than 1 Year	Due 1 Through 5 Years	Due 5 to 15 Years	Due After 15 Years	Total
Direct Notes	$ 1,665,426	$ 4,701,999	$ 8,375,640	$ 6,474,216	$ 21,217,281
Real estate mortgage	8,390	252,287	639,465	262,948	1,163,090
Production and intermediate-term	228,485	650,350	366,473	—	1,245,308
Loans to cooperatives	91,492	335,326	147,516	—	574,334
Processing and marketing	186,105	1,138,354	589,655	18,360	1,932,474
Farm-related business	10,499	75,324	41,966	—	127,789
Communication	6,788	477,113	196,323	—	680,224
Power and water/waste disposal	98,158	416,048	331,896	362,271	1,208,373
Rural residential real estate	172,414	27,896	372,285	2,471,431	3,044,026
International	—	84,408	19,830	—	104,238
Lease receivables	—	—	—	388	388
Loans to OFIs	123,793	42,467	—	—	166,260
Other (including Mission Related)	—	275	4,672	—	4,947
Total loans	$ 2,591,550	$ 8,201,847	$ 11,085,721	$ 9,589,614	$ 31,468,732
Percentage	8.24 %	26.06 %	35.23 %	30.47 %	100.00 %

The following table illustrates AgFirst's impaired loans by geographic distribution at December 31, 2022. This table does not include accrued interest.

Total Outstanding Impaired Loans by State*

(dollars in thousands)	At Period End	Year-to-Date Average Balance
Georgia	$ 17,277	$ 11,384
North Carolina	16,292	17,798
Ohio	11,477	2,040
Florida	7,859	5,289
Texas	6,853	13,048
South Carolina	5,189	5,764
Virginia	4,116	2,881
Arkansas	3,509	3,587
Maryland	3,349	3,256
Tennessee	1,276	1,378
Kentucky	1,271	1,303
All other states	3,350	3,820
Total impaired loans	$ 81,818	$ 71,548

* *The distribution is based on the state in which the borrower is headquartered and may not be representative of their operations and business activities.*

The Bank does not use credit default swaps as part of its credit risk management approach.

Credit Risk Mitigation Related to Investments

Credit risk in AgFirst's investment portfolio is largely mitigated by investing primarily in securities issued or guaranteed by the U.S. government or one of its agencies.

The following table shows the investment exposures covered by a guarantee as of December 31, 2022. This table does not include accrued interest.

(dollars in thousands)	Amortized Cost	Fair Value	% of Total Investments	Risk-Weighted Exposures
Unconditional Guarantee:				
U.S. Govt. Treasury Securities	$ 142,345	$ 139,716	2 %	$ —
U.S. Govt. Guaranteed	4,481,124	3,979,473	44 %	—
Conditional Guarantee:				
U.S. Govt. Agency Guaranteed	5,022,695	4,537,973	50 %	1,023,077
Total	$ 9,646,164	$ 8,657,162	96 %	$ 1,023,077

The remaining credit risk in the Bank's investment portfolio primarily relates to the four percent of the portfolio composed of asset-backed securities (ABS), Rural Housing Mortgage-Backed Securities (RHMS) and Rural America Bonds (RABs). The ABS securities must meet the applicable FCA regulatory guidelines, which require them to be high quality, senior class, and rated in the top category (AAA/Aaa) by Nationally Recognized Statistical Rating Organizations (NRSROs) at the time of purchase. To achieve these ratings, the securities may have a guarantee of timely payment of principal and interest, credit enhancements achieved through over-collateralization or other means, priority of payments for senior classes over junior classes, or bond insurance.

All of the non-agency securities owned have one or more credit enhancement features. The RHMS portfolio must be fully guaranteed by a government agency or government sponsored enterprise. RABs are private placement securities, which generally have some form of credit enhancement. Credit risk in the investment portfolio also arises from the inability of guarantors and third-party providers of other credit enhancements, such as bond insurers or Farmer Mac, to meet their contractual obligations to the Bank.

COUNTERPARTY CREDIT RISK

Counterparty credit risk exposures may consist of derivative instruments and repurchase-style transactions. By using derivative instruments, the Bank exposes itself to credit and market risk. The amount of this exposure depends on the value of underlying market factors (e.g. interest rates and foreign exchange rates), which can be volatile and uncertain in nature. If a counterparty fails to fulfill its performance obligations under a derivative contract, the Bank's credit risk will equal the fair value gain in the derivative. Generally, when the fair value of a derivative contract is positive, this indicates that the Bank is exposed to an economic loss if the counterparty defaults. When the fair value of the derivative contract is negative, the counterparty is exposed to an economic loss in the event of a Bank default and the Bank has no credit risk exposure.

To minimize the risk of credit losses, the Bank transacts with counterparties that have an investment grade credit rating from a major rating agency and also monitors the credit standing of, 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.

Financial instruments qualifying as eligible collateral are specifically defined under individual counterparty credit support agreements, but generally include cash, U.S. Treasury debt obligations, debt obligations of certain federal agencies and mortgage-backed securities guaranteed by certain federal agencies. Federal agencies include the Government National Mortgage Association, Federal National Mortgage Association, Federal Home Loan Mortgage Corporation, and the Federal Home Loan Banks. The value of the instrument when used as collateral may be discounted from its market price up to 10 percent, depending on the security type, issuer and term. Such discounts are defined in the credit support agreement.

At December 31, 2022, the Bank had two foreign currency forwards outstanding with a notional value of $1.1 million.

SECURITIZATION

Securitizations are transactions in which:

- The credit risk of the underlying exposure is transferred to third parties, and has been separated into two or more tranches;
- The performance of the securitization depends upon the performance of the underlying exposures or reference assets; and
- All or substantially all of the underlying exposures or reference assets are financial exposures.

Securitizations include on- or off-balance sheet exposures (including credit enhancements) that arise from a securitization or re-securitization transaction; or an exposure that directly or indirectly references a securitization (e.g., credit derivative). A re-securitization is a securitization transaction in which one or more of the underlying exposures that have been securitized is itself a securitization.

The Bank currently only participates in securitizations as an investor through the purchase of mortgage-backed securities (MBSs) and ABSs as included in its investment portfolio. As of December 31, 2022, the Bank did not retain any re-securitization exposures.

The Bank is subject to liquidity risk with respect to securitization exposures. In volatile market conditions, it could be difficult to sell such investments, if the need arises, and the discounts from face value would likely be significant. In addition, because of the inherent uncertainty of determining the fair value of investments that do not have a readily available market value, the fair value of these investments may differ significantly from the values that would have been used had a ready market existed for the investments.

The Bank has elected to utilize the simplified supervisory formula risk-based capital approach (SSFA) for securitization exposures related to investments. As such, the Bank's ABS portfolio is risk weighted on an individual security level. As of December 31, 2022, the ABS risk weights ranged from 20.00 percent to 138.02 percent, with a weighted average risk-weight of 60.00 percent. Total risk-weighted assets for the investment securitization portfolio utilizing a 3-month average daily balance was $253.8 million at December 31, 2022.

The following table shows the risk-weight distribution as of December 31, 2022 for ABS securities which are risk weighted using the SSFA approach. This table does not include accrued interest.

	ABS Securities by SSFA Risk Weight Classification		
(dollars in thousands)	Automobile ABSs	Credit Card ABSs	Total
0% – 50%	$ 116,000	$ 116,489	$ 232,489
Greater than 50% – 100%	58,721	—	58,721
Greater than 100% – 150%	118,995	—	118,995
Total Exposure	$ 293,716	$ 116,489	$ 410,205

As of December 31, 2022, the Bank did not hold any off-balance sheet securitization exposures nor were any securitization exposures deducted from capital. For the year ended December 31, 2022, there were no sales of ABS securities that resulted in realized gains or losses.

Refer to Note 4, *Investments*, in the Notes to the Financial Statements for additional information related to purchases and sales of securitization exposures as well as the amortized cost, unrealized gains/(losses) and fair value of MBSs and ABSs held in the Bank's investment portfolio.

EQUITIES

At December 31, 2022, the Bank had no equity investments other than equity investments in other Farm Credit institutions.

INTEREST RATE RISK

See *Interest Rate Risk Management* in the *Risk Management* section of Management's Discussion and Analysis for the disclosures on the Bank's interest rate risk management practices.

Glossary of Certain Acronyms

ABS	Asset backed security
ACA	Agricultural Credit Association
ACB	Agricultural Credit Bank
AFS	Available-for-sale
ALCO	Asset/Liability Management Committee
AOCI	Accumulated Other Comprehensive Income
ASU	Accounting Standards Update
CECL	Current expected credit losses
CET1	Common equity tier 1
CIPA	Contractual Interbank Performance Agreement
CMO	Collateralized Mortgage Obligation
FAP	Final average pay
FASB	Financial Accounting Standards Board
FCA	Farm Credit Administration
FCB	Farm Credit Bank
FCBA	Farm Credit Benefits Alliance
FCBT	Farm Credit Bank of Texas
FCSIC	Farm Credit System Insurance Corporation
FFB	Federal Financing Bank
FLCA	Federal Land Credit Association
FSA	Farm Service Agency
GAAP	Generally Accepted Accounting Principles
GFA	General Financing Agreement
GNMA	Government National Mortgage Association (Ginnie Mae)
GSE	Government-sponsored enterprise
HTM	Held-to-maturity
LGD	Loss given default
LIBOR	London Inter-Bank Offered Rate
LLC	Limited liability company
LTSP	Long-term standby commitment to purchase
MAA	Market Access Agreement
MBS	Mortgage-backed security
NII	Net interest income
NRSRO	Nationally Recognized Statistical Rating Organization
OAEM	Other Assets Especially Mentioned
OCI	Other Comprehensive Income
OFI	Other financing institution
OPEB	Other postretirement benefits plan
OPO	Other property owned
OTTI	Other-than-temporary impairment
PCA	Production Credit Association
PD	Probability of default
PPP	Paycheck Protection Program
RAB	Rural America Bond
RHMS	Rural Housing Mortgage-Backed Securities
SBA	Small Business Administration
SEC	Securities and Exchange Commission
SOFR	Secured Overnight Financing Rate
SSFA	Simplified supervisory formula risk-based capital approach
TDR	Troubled debt restructuring
UBE	Unincorporated business entity
URE	Unallocated retained earnings
UREE	Unallocated retained earnings equivalents
USD	U.S. dollar
USDA	United States Department of Agriculture
YBS	Young, beginning, and small

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