

Lending Support for Generations



2018 ANNUAL
REPORT



RIVER VALLEY AGCREDIT, ACA

2018 ANNUAL REPORT

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Management

Kyle Yancey.....	Chief Executive Officer
Kevin Brown	Chief Lending Officer
Beth Barkley.....	Chief Financial Officer
Miranda Robertson.....	Chief Credit Officer

Board of Directors

David L. Richesin	Chairman
Joe F. Campbell.....	Vice Chairman
Darren Grogan.....	Director
Randall Heath.....	Director
Tiffany Myers	Outside Director
Dr. Buddy Ray	Outside Director
Andrew Falwell.....	Director
Brandon Strasser	Director
Don Massengale.....	Director

Message from the President

The economic environment continued its assault on River Valley AgCredit, ACA (Association) in 2018. With commodity prices already suffering, lower soybean prices as a result of tariffs, put even more pressure on the association and our producers. The growing season in both regions provided for good yields, which helped our farmers meet their financial projections, and allowed RVA to once again have a very positive year. The Association performed near its peak potential in 2018, with the only weakness being asset quality. I am very proud of the performance of our company. From the borrower to the director, everyone can share in the success of River Valley AgCredit in 2018.

Year over year the Association's net volume grew to \$535.9 million with total assets of \$563.3 million. Most of our loan volume growth in 2018 came from poultry expansion. In addition, our lenders added \$119 million in new loan volume in 2018, which was approximately \$10 million more than in 2017.

Net earnings were \$10.6 million, which was over budget by \$3.6 million. In March 2018, we received a full refund of Financial Assistance Corporation (FAC) funds and a refund on FCSIC proceeds. The total of those two was approximately \$785,000. We were pleased to receive another special patronage of \$3.4 million from AgFirst in December. In November, we distributed a special patronage of our own, with members receiving three patronage checks in 2018. Total patronage was a record for RVA at \$9.7 million. Our excellent 2018 net income will also once again result in another generous patronage refund in 2019. Return on assets (ROA) at year end was 2.02% which was well above our minimum standard of 1.0% set in our general financing agreement with AgFirst. Year-end permanent capital finished at 18.64%, down from 2017 due to our special patronage disbursement in November.

Credit quality improved some to 90.54% fully acceptable, an increase from 89.74% a year ago. Adversely classified volume however increased to 5.72% of our portfolio compared to 5.09% a year ago. We remain well positioned to handle the adversity in our portfolio as allowance for loan losses (ALL) continues to be strong. Currently 1.24% of total loans, or \$6.7 million is set aside for any difficult environment that might develop. This is an improvement from \$6.5 million set aside last year. In 2018, RVA's performance resulted in very strong earnings and at the same time allowed us to continue to build our reserve base.

As is standard for all financial institutions, RVA was audited several times in 2018. As the asset quality of the Association drops, auditors place greater focus on the underlying strength of the association. I am very pleased to announce that RVA

passed all audits in 2018 and had no major deficiencies that needed correction.

Thank you for allowing me to serve as your CEO once again in 2018. As always, my door is open to all stockholders. Please stop by or call anytime. May God bless you and your operations in 2019.



Kyle M. Yancey
Chief Executive Officer
River Valley AgCredit, ACA

March 13, 2019

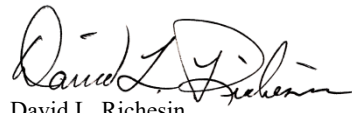
Report of Management

The accompanying Consolidated Financial Statements and related financial information appearing throughout this annual report have been prepared by management of River Valley AgCredit, ACA (Association) in accordance with generally accepted accounting principles appropriate in the circumstances. Amounts which must be based on estimates represent the best estimates and judgments of management. Management is responsible for the integrity, objectivity, consistency, and fair presentation of the consolidated financial statements and financial information contained in this report.

Management maintains and depends upon an internal accounting control system designed to provide reasonable assurance that transactions are properly authorized and recorded, that the financial records are reliable as the basis for the preparation of all financial statements, and that the assets of the Association are safeguarded. The design and implementation of all systems of internal control are based on judgments required to evaluate the costs of controls in relation to the expected benefits and to determine the appropriate balance between these costs and benefits. The Association maintains an internal audit program to monitor compliance with the systems of internal accounting control. Audits of the accounting records, accounting systems and internal controls are performed and internal audit reports, including appropriate recommendations for improvement, are submitted to the Board of Directors.

The consolidated financial statements have been audited by independent auditors, whose report appears elsewhere in this annual report. The Association is also subject to examination by the Farm Credit Administration.

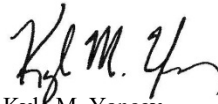
The Consolidated Financial Statements, in the opinion of management, fairly present the financial condition and results of operation of the Association. The undersigned certify that we have reviewed the 2018 Annual Report of River Valley AgCredit, ACA that the report has been prepared under the oversight of the audit committee of the Board of Directors and in accordance with all applicable statutory or regulatory requirements, and that the information contained herein is true, accurate, and complete to the best of our knowledge and belief.



David L. Richesin
Chairman of the Board
of River Valley AgCredit, ACA



Darren L. Grogan
Member of Board of Directors
Chairman of the Audit Committee
of River Valley AgCredit, ACA



Kyle M. Yancey
Chief Executive Officer
of River Valley AgCredit, ACA



Beth Barkley
Chief Financial Officer
of River Valley AgCredit, ACA

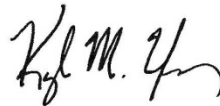
March 13, 2019

Report on Internal Control Over Financial Reporting

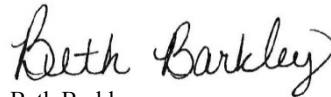
The Association's principal executives and principal financial officers, or persons performing similar functions, are responsible for establishing and maintaining adequate internal control over financial reporting for the Association's Consolidated Financial Statements. For purposes of this report, "internal control over financial reporting" is defined as a process designed by, or under the supervision of the Association's principal executives and principal financial officers, or persons performing similar functions, and effected by its Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting information and the preparation of the Consolidated Financial Statements for external purposes in accordance with accounting principles generally accepted in the United States of America and includes those policies and procedures that: (1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Association, (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial information in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures are being made only in accordance with authorizations of management and directors of the Association, and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Association's assets that could have a material effect on its Consolidated Financial Statements.

The Association's management has completed an assessment of the effectiveness of internal control over financial reporting as of December 31, 2018. 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 Association's management concluded that as of December 31, 2018, the internal control over financial reporting was effective based upon the COSO criteria. Additionally, based on this assessment, the Association determined that there were no material weaknesses in the internal control over financial reporting as of December 31, 2018. This annual report does not include an attestation report of the Association's external accounting firm regarding internal control over financial reporting.



Kyle M. Yancey
Chief Executive Officer
of River Valley AgCredit, ACA



Beth Barkley
Chief Financial Officer
of River Valley AgCredit, ACA

March 13, 2019

Consolidated Five - Year Summary of Selected Financial Data

<i>(dollars in thousands)</i>	December 31,				
	2018	2017	2016	2015	2014
Balance Sheet Data					
Cash	\$ 1,084	\$ 644	\$ 675	\$ 2,358	\$ 2,933
Investments in debt securities	—	—	8	22	97
Loans	540,945	522,313	496,247	491,025	492,869
Allowance for loan losses	(6,734)	(6,516)	(5,956)	(6,056)	(6,040)
Net loans	534,211	515,797	490,291	484,969	486,829
Equity investments in other Farm Credit institutions	6,175	5,953	6,671	6,957	7,390
Other property owned	356	33	569	892	919
Other assets	21,537	20,473	21,577	20,061	19,978
Total assets	\$ 563,363	\$ 542,900	\$ 519,791	\$ 515,259	\$ 518,146
Notes payable to AgFirst Farm Credit Bank*	\$ 451,508	\$ 428,422	\$ 411,707	\$ 409,486	\$ 411,161
Accrued interest payable and other liabilities with maturities of less than one year	13,826	18,935	16,409	16,559	20,306
Total liabilities	465,334	447,357	428,116	426,045	431,467
Capital stock and participation certificates	4,478	4,428	4,404	4,541	4,872
Additional paid-in-capital	15,817	15,817	15,817	15,817	15,817
Retained earnings					
Allocated	43,889	42,830	39,816	39,882	38,301
Unallocated	33,845	32,468	31,638	28,974	27,689
Total members' equity	98,029	95,543	91,675	89,214	86,679
Total liabilities and members' equity	\$ 563,363	\$ 542,900	\$ 519,791	\$ 515,259	\$ 518,146
Statement of Income Data					
Net interest income	\$ 14,100	\$ 13,731	\$ 12,919	\$ 13,382	\$ 13,281
Provision for loan losses	982	502	237	450	136
Noninterest income (expense), net	(2,469)	(1,933)	(4,839)	(4,229)	(2,447)
Net income	\$ 10,649	\$ 11,296	\$ 7,843	\$ 8,703	\$ 10,698
Key Financial Ratios					
Rate of return on average:					
Total assets	2.02%	2.25%	1.60%	1.79%	2.27%
Total members' equity	11.03%	12.01%	8.62%	9.82%	12.74%
Net interest income as a percentage of					
average earning assets	2.76%	2.84%	2.73%	2.86%	2.93%
Net (chargeoffs) recoveries to average loans	(0.149)%	0.012%	(0.071)%	(0.093)%	(0.065)%
Total members' equity to total assets	17.40%	17.60%	17.64%	17.31%	16.73%
Debt to members' equity (:1)	4.75	4.68	4.67	4.78	4.98
Allowance for loan losses to loans	1.24%	1.25%	1.20%	1.23%	1.23%
Permanent capital ratio	18.64%	19.04%	19.38%	19.16%	18.20%
Total surplus ratio	**	**	18.61%	18.36%	17.33%
Core surplus ratio	**	**	17.37%	17.24%	16.20%
Common equity tier 1 capital ratio	16.32%	15.97%	**	**	**
Tier 1 capital ratio	16.32%	15.97%	**	**	**
Total regulatory capital ratio	17.86%	17.51%	**	**	**
Tier 1 leverage ratio	14.79%	14.60%	**	**	**
Unallocated retained earnings (URE) and URE equivalents leverage ratio	14.47%	14.40%	**	**	**
Net Income Distribution					
Estimated patronage refunds:					
Cash	\$ 3,386	\$ 4,921	\$ 2,906	\$ 3,172	\$ 2,449
Nonqualified allocated retained earnings	—	—	—	—	2,099
Nonqualified retained earnings	5,886	5,059	2,870	3,301	2,449

* General financing agreement is renewable on a one-year cycle. The next renewal date is December 31, 2019.

** Not applicable due to changes in regulatory capital requirements effective January 1, 2017.

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

(dollars in thousands, except as noted)

GENERAL OVERVIEW

The following commentary summarizes the financial condition and results of operations of River Valley AgCredit, ACA (Association) for the year ended December 31, 2018 with comparisons to the years ended December 31, 2017 and December 31, 2016. This information should be read in conjunction with the Consolidated Financial Statements, Notes to the Consolidated Financial Statements and other sections in this Annual Report. The accompanying consolidated financial statements were prepared under the oversight of the Audit Committee of the Board of Directors. For a list of the Audit Committee members, refer to the "Report of the Audit Committee" reflected in this Annual Report. Information in any part of this Annual Report may be incorporated by reference in answer or partial answer to any other item of the Annual Report.

The Association is an institution of the Farm Credit System (System), which was created by Congress in 1916 and has served agricultural producers for over 100 years. The System's mission is to maintain and improve the income and well-being of American farmers, ranchers, and producers or harvesters of aquatic products and farm-related businesses. The System is the largest agricultural lending organization in the United States. The System is regulated by the Farm Credit Administration, (FCA), which is an independent safety and soundness regulator.

The Association is a cooperative, which is owned by the members (also referred to throughout this Annual Report as stockholders or shareholders) served. The territory of the Association extends across a diverse agricultural region of Western Kentucky and Southeast Tennessee. Refer to Note 1, *Organization and Operations*, of the Notes to the Consolidated Financial Statements for counties in the Association's territory. The Association provides credit to farmers, ranchers, rural residents, and agribusinesses. Our success begins with our extensive agricultural experience and knowledge of the market.

The Association obtains funding from AgFirst Farm Credit Bank (AgFirst or Bank). The Association is materially affected and shareholder investment in the Association may be materially affected by the financial condition and results of operations of the Bank. Copies of the Bank's Annual and Quarterly Reports are on the AgFirst website, www.agfirst.com, or may be obtained at no charge by calling 1-800-845-1745, extension 2832, or writing Susanne Caughman, AgFirst Farm Credit Bank, P. O. Box 1499, Columbia, SC 29202.

Copies of the Association's Annual and Quarterly reports are also available upon request free of charge on the Association's website, www.rivervalleyagcredit.com, or by calling 1-270-247-5613, extension 2020, or writing Beth Barkley, River Valley AgCredit, ACA, PO Box 309, Mayfield, KY 42066. The Association prepares an electronic version of the Annual Report, which is available on the website, within 75 days after the end of the fiscal year and distributes the Annual Reports to shareholders within 90 days after the end of the fiscal year. The

Association prepares an electronic version of the Quarterly report, which is available on the internet, within 40 days after the end of each fiscal quarter, except that no report needs to be prepared for the fiscal quarter that coincides with the end of the fiscal year of the Association.

FORWARD LOOKING INFORMATION

This annual information statement contains forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict. Words such as "anticipates," "believes," "could," "estimates," "may," "should," "will," or other variations of these terms are intended to identify the forward-looking statements. These statements are based on assumptions and analyses made in light of experience and other historical trends, current conditions, and expected future developments. However, actual results and developments may differ materially from our expectations and predictions due to a number of risks and uncertainties, many of which are beyond our control. These risks and uncertainties include, but are not limited to:

- political, legal, regulatory and economic conditions and developments in the United States and abroad;
- economic fluctuations in the agricultural, rural utility, international, and farm-related business sectors;
- weather-related, disease, and other adverse climatic or biological conditions that periodically occur that impact agricultural productivity and income;
- changes in United States government support of the agricultural industry and the Farm Credit System, as a government-sponsored enterprise, as well as investor and rating-agency reactions to events involving other government-sponsored enterprises and other financial institutions; and
- actions taken by the Federal Reserve System in implementing monetary policy.

AGRICULTURAL OUTLOOK

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 the Association's business. References to USDA information in this section refer to the U.S. agricultural market data and are not limited to information/data in the Association's territory.

Production agriculture is a cyclical business that is heavily influenced by commodity prices, weather, tax and trade policies, interest rates and various other factors. From 2010 through 2014, the U.S. farm sector generally experienced favorable economic conditions driven by high commodity and livestock prices and increasing farmland values. This generally fostered improved

financial strength across the farm sector, with farmer working capital peaking in 2012. Working capital is defined as the amount of cash and cash convertible assets minus liabilities due to creditors within 12 months. However, since 2014, the agricultural environment has been more challenging. Currency fluctuations, large inventories and current U.S. trade policies, including the retaliatory action by other countries, have begun to adversely impact demand and prices for agricultural exports, which have reduced net farm income (a broad measure of profits) and eroded farmer working capital. Higher interest rates could exacerbate the reduction in net farm income by increasing interest expense for farmers with floating-rate loans or other liabilities that reprice periodically to current market interest rates. The following table illustrates USDA data on net farm income and farmer working capital:

<i>(dollars in billions)</i>	Year Ended December 31,			
	2018*	2017	2016	2015
Net Farm Income	\$66.295	\$75.381	\$61.542	\$81.053
Farmer Working Capital	\$49.879	\$72.279	\$65.197	\$82.657

*Forecasted

The substantial risk-bearing capacity, gained prior to 2015, has afforded U.S. crop producers time to transition their operations to the new environment of lower commodity prices, compressed margins and higher interest rates. Optimal input usage, adoption of cost-saving technologies, negotiation of adjustments to various business arrangements, such as rental cost of agriculture real estate, and effective use of hedging and other price risk management strategies are all critical in yielding positive net farm income for producers. Producers who are able to realize cost of production efficiencies and market their farm products effectively are most likely to adapt to the current price environment. However, if these current market conditions persist, farm sector financial strength will continue to weaken, challenging a greater number of producers who may not be able to sufficiently adjust their operations to avoid loan repayment challenges.

The February 2019 USDA forecast estimates 2018 farmers' net cash income, which is a measure of the cash income after payment of business expenses, at \$95.0 billion, down \$9.0 billion from 2017. The forecasted decrease in farmers' net cash income for 2018 is primarily due to an expected increase in cash expenses of \$11.9 billion, led by increases in fuels/oil, interest, feed, and hired labor.

The February 2019 USDA outlook for the farm economy, as a whole, projects 2019 farmers' net cash income to increase to \$97.7 billion, a \$2.7 billion increase from 2018. The forecasted increase in farmers' net cash income for 2019 is primarily due to an expected decrease in cash expenses of \$4.4 billion and increase in cash receipts for crops of \$2.2 billion, partially offset by a decrease in direct government payments of \$2.8 billion.

As estimated by the USDA in November 2018, the System's market share of farm business debt (defined as debt incurred by those involved in on-farm agricultural production) decreased slightly to 40.4 percent at December 31, 2017 (the latest available data), as compared with 40.9 percent at December 31, 2016.

While 2018 net farm income and working capital have declined, a healthy U.S. economy is expected to support domestic demand for most agricultural commodities in the foreseeable future. The primary area of risk will remain the export component of the

demand for U.S. agricultural commodities, with a stronger dollar and ongoing uncertainty surrounding the future of U.S. trade policy. Major cash crops in the U.S. are projected to remain at elevated supply levels resulting from a combination of factors, including overall excellent crop conditions, tariffs and strong harvests in recent years. In addition to cash crops, pork and dairy are heavily dependent upon exports and most susceptible to foreign trade-related disruptions. The risk in the export component of the demand for U.S. agricultural commodities has been minimally mitigated by Market Facilitation Program assistance to producers impacted by retaliatory tariffs. Additionally, the revised Dairy Margin Protection Program in the 2018 Farm Bill and the new Dairy Revenue Protection Program will provide some support for dairy farmers. Mid-sized dairies, especially operations that are more highly leveraged or have high relative costs, will continue to face financial challenges at least into mid-2019.

The following table sets forth the commodity prices per bushel for certain crops, by hundredweight for hogs, milk, and beef cattle, and by pound for broilers and turkeys from December 31, 2015 to December 31, 2018:

Commodity	12/31/18	12/31/17	12/31/16	12/31/15
Hogs	\$43.40	\$48.60	\$43.10	\$42.80
Milk	\$16.40	\$17.20	\$18.90	\$17.30
Broilers	\$0.51	\$0.50	\$0.48	\$0.47
Turkeys	\$0.50	\$0.53	\$0.74	\$0.89
Corn	\$3.54	\$3.23	\$3.32	\$3.65
Soybeans	\$8.57	\$9.30	\$9.64	\$8.76
Wheat	\$5.28	\$4.50	\$3.90	\$4.75
Beef Cattle	\$117.00	\$118.00	\$111.00	\$122.00

In a prolonged period of less favorable conditions in agriculture, the Association's financial performance and credit quality measures would likely be negatively impacted. Any negative impact from these less favorable conditions should be lessened by geographic and commodity diversification and the influence of off-farm income sources supporting agricultural-related debt. However, agricultural borrowers who are more reliant on off-farm income sources may be more adversely impacted by a weakened general economy.

CRITICAL ACCOUNTING POLICIES

The financial statements are reported in conformity with accounting principles generally accepted in the United States of America. Our significant accounting policies are critical to the understanding of our results of operations and financial position because some accounting policies require us to make complex or subjective judgments and estimates that may affect the value of certain assets or liabilities. We consider these policies critical because management must make judgments about matters that are inherently uncertain. For a complete discussion of significant accounting policies, see Note 2, *Summary of Significant Accounting Policies*, of the Notes to the Consolidated Financial Statements. The following is a summary of certain critical policies.

- *Allowance for loan losses* — 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. The allowance for loan losses is increased through provisions for loan losses and loan recoveries and is decreased through allowance

reversals and loan charge-offs. The allowance for loan losses is determined based on a periodic evaluation of the loan portfolio by management in which numerous factors are considered, including economic and political conditions, loan portfolio composition, credit quality and prior loan loss experience.

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 encompasses various judgments, evaluations and appraisals with respect to the loans and their underlying security that, by nature, contains elements of uncertainty and imprecision. Changes in the agricultural economy and borrower repayment capacity will cause these various judgments, evaluations and appraisals to change over time. Accordingly, actual circumstances could vary from the Association's expectations and predictions of those circumstances.

Management considers the following factors in determining and supporting the levels of allowance for loan losses: the concentration of lending in agriculture, combined with uncertainties in farmland values, commodity prices, exports, government assistance programs, regional economic effects and weather-related influences. Changes in the factors considered by management in the evaluation of losses in the loan portfolios could result in a change in the allowance for loan losses and could have a direct impact on the provision for loan losses and the results of operations.

The Association uses a two-dimensional loan rating model that incorporates a 14-point risk rating model to identify and track the probability of default as well as a separate scale addressing the loss given default over a period of time. The probability of default scale provides for granularity in the ratings with 1 being the best score and 14 being a loss. Loss given default is measured by the codes of B, D, E, and F with B being well secured and F being under secured. In addition to the two-dimensional scale, management applies qualitative reserves to capture changes in loan concentrations, weather, and other events that impact the loan portfolio.

- *Valuation methodologies* — Management applies various valuation methodologies to assets and liabilities that often involve a significant degree of judgment, particularly when liquid 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 liquid market exists, such as most investment securities. Management utilizes significant estimates and assumptions to value items for which an observable liquid market does not exist. Examples of these items include impaired loans, pension and other postretirement benefit obligations, other property owned, and certain 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 results, which could have material positive or negative effects on the Association's results of operations.

ECONOMIC CONDITIONS

Overall unemployment conditions in the Purchase area of Kentucky have improved from a year ago. Unemployment is approximately 4.47% as compared to 4.77% in 2017. Unemployment in the counties served in Southeast Tennessee improved from 3.24% to 3.19% over the same period.

The Federal Reserve continues to forecast continued economic growth, discontinued purchases of securities, and increased Federal Funds rate. This indicates the Federal Reserve continues to believe the economy is improving and the effect should result in higher long term interest rates. It was reported that the US had growth in GDP in the last two quarters of 2018, although slower than previous year, with the expectation the economy will continue to improve. The economy will continue to be impacted by the fiscal deficit and the uncertainty created by Congress to bring the deficit under control. Interest rates are expected to increase during 2019.

Grain farmers were marginally profitable as a whole in 2018 with above normal yields. At current grain prices and average yields they should meet obligations in 2018 with lower input cost. Profitability will be impacted by the cost of inputs and whether or not input costs remain at current levels or decrease. Early indications are for decreased input costs year over year which will impact profitability positively. Livestock producers were profitable in 2018, but will see lower profitability due to lower prices. Poultry integrators improved their financial position during 2018 due to relatively high prices for their products and lower expenses due to lower cost of inputs primarily corn and soybeans. Poultry growers could see normalized placement of birds as integrators seek to expand production due to the continued low cost of feed. Our poultry growers as a whole in 2018 were sufficiently profitable to meet their obligations. Dairy farmers were also profitable during the year, but will have less opportunities for improvement in profitability with the forecast of lower milk prices.

Land prices are expected to be stable in the Kentucky region of the association. The pace of change is expected to be slow due to the continued forecast of lower grain prices. Land prices are expected to improve in the Tennessee region of the association as the general economy improves.

Land rents are also expected to be stable to lower, due to lower grain prices.

The housing market has improved in the territory served with sales actively occurring and values improving.

Your Association continues to be profitable and it is projected to be sustainable allowing your Cooperative to continue to pay a good patronage dividend. Losses are minimal and capital is adequate for moderate growth. Efficiencies deteriorated some due to cost increases and the Association holding a strong market position in the agricultural arena. Measures are being taken to improve these efficiencies and to improve the profitability of your Association.

LOAN PORTFOLIO

The Association provides funds to farmers, rural homeowners, and farm-related businesses for financing of short and intermediate-term loans and long-term real estate mortgage loans through numerous product types.

The diversification of the Association loan volume by type for each of the past three years is shown in the table below.

Loan Type	December 31,					
	2018		2017		2016	
Production and intermediate-term	\$ 216,125	39.95%	\$ 211,947	40.58%	\$ 222,689	44.87%
Real estate mortgage	248,651	45.97	236,119	45.21	220,738	44.48
Processing and marketing	2,568	0.47	2,778	0.53	2,003	0.40
Other	46,311	8.56	44,942	8.60	25,878	5.22
Rural residential real estate	13,910	2.57	14,963	2.87	15,123	3.05
Cooperatives	296	0.06	—	—	3,278	0.66
Farm-related business	13,084	2.42	11,564	2.21	6,538	1.32
Total	\$ 540,945	100.00%	\$ 522,313	100.00%	\$ 496,247	100.00%

While we make loans and provide financially related services to qualified borrowers in the agricultural and rural sectors and to certain related entities, our loan portfolio is diversified.

The geographic distribution of the loan volume by branch for the past three years is as follows:

Branch	December 31,		
	2018	2017	2016
Bardwell, KY	4.50%	5.06%	5.87%
Clinton, KY	11.50	11.60	13.08
Hickman, KY	8.20	7.45	7.33
Kevil, KY	5.78	5.71	6.22
Murray, KY	13.64	12.79	13.41
Marshall County, KY	—	1.39	1.83
Mayfield, KY	12.50	11.29	11.46
Lone Oak, KY	1.04	1.24	1.46
Special Assets Unit-West	0.29	0.34	0.57
Capital Markets-Joint	9.54	9.55	7.37
Cleveland, TN	4.71	3.76	3.16
Pikeville, TN	3.05	3.43	3.56
Athens, TN	13.53	13.88	14.13
Dayton, TN	3.16	3.36	3.15
Loudon, TN	4.38	4.62	3.40
Chattanooga, TN	2.76	3.10	3.13
Special Assets Unit-East	0.63	0.95	0.60
Farm Credit Express	0.79	0.48	0.27
	100.00%	100.00%	100.00%

Commodity and industry categories are based upon the Standard Industrial Classification system published by the federal government. The system is used to assign commodity or industry categories based upon the largest agricultural commodity of the customer.

The major commodities in the Association loan portfolio are shown below. The predominant commodities are poultry, corn, field crops, cattle and grain, which constitute 81 percent of the entire portfolio.

Commodity Group *	December 31,					
	2018		2017		2016	
Cattle	\$ 63,682	12%	\$ 60,398	12%	\$ 53,768	11%
Corn	108,909	20	133,564	25	131,430	27
Cotton	326	—	96	—	93	—
Dairy	15,165	3	10,459	2	10,932	2
Field Crops	63,718	12	60,975	12	62,301	13
Forestry	17,758	3	18,406	4	21,106	4
Grain	59,252	11	29,265	6	34,960	7
Nursery/Greenhouse	433	—	909	—	1,398	—
Other	42,904	8	82,915	16	46,977	9
Other Real Estate	16,733	3	17,157	3	19,082	4
Poultry	140,983	26	95,197	17	85,788	18
Processing	1,420	—	4,345	1	7,318	1
Rural Home Loan	—	—	74	—	15,618	3
Swine	6,371	1	5,261	1	3,771	1
Tobacco	79	—	89	—	9	—
Tree Fruits and Nuts	3,212	1	3,203	1	1,696	—
Total	\$ 540,945	100%	\$ 522,313	100%	\$ 496,247	100%

*Amounts have been revised in prior years to conform with the current period presentation.

Repayment ability is closely related to the commodities produced by our borrowers, and increasingly, the off-farm income of borrowers. The Association's loan portfolio contains a concentration of corn and grain producers. Although a large percentage of the loan portfolio is concentrated in these enterprises, many of these operations are diversified within their enterprise and/or with crop production that reduces overall risk exposure. Demand for beef, prices of field grains, and international trade are some of the factors affecting the price of these commodities. Even though the concentration of large loans has increased over the past several years, the agricultural enterprise mix of these loans is diversified and similar to that of the overall portfolio. The risk in the portfolio associated with commodity concentration and large loans is reduced by the range of diversity of enterprises in the Association's territory.

The increase for periods ending December 31, 2018 and December 31, 2017 was primarily attributed to increased input costs of farm production and new loans in real estate and equipment.

For the past few years, the Association has remained stable in long-term versus short-term loan volume. The short-term portfolio, which is heavily influenced by operating-type loans,

normally reaches a peak balance in August and rapidly declines in the fall months as commodities are marketed and proceeds are applied to repay operating loans.

During 2018, the Association continued activity in the buying and selling of loan participations within and outside of the System. This provides a means for the Association to spread credit concentration risk and realize non-patronage sourced interest and fee income, which is intended to strengthen our capital position.

Loan Participations:	December 31,		
	2018	2017	2016
Participations Purchased			
– FCS Institutions	\$ 5,312	\$ 4,953	\$ 9,372
Participations Purchased			
– Non-FCS Institutions	44,005	42,901	26,263
Participations Sold	(8,882)	(9,355)	(18,383)
Total	\$ 40,435	\$ 38,499	\$ 17,252

The Association did not have any loans sold with recourse, retained subordinated participation interests in loans sold, or interests in pools of subordinated participation interests for the period ended December 31, 2018.

The Association sells qualified long-term mortgage loans into the secondary market. For the year ended December 31, 2018, the Association originated loans for resale totaling \$20,539 which were sold into the secondary market as compared to \$20,844 for December 31, 2017 and \$16,273 for December 31, 2016.

The Association purchased portions of loans that are guaranteed by the United States Department of Agriculture, Farm Service Agency, and the Small Business Administration. These loans are held for the purposes of reducing interest rate risk and managing surplus short-term funds as allowable under FCA regulations. At December 31, 2018, the balance of these loans, including the unamortized premium, was \$46,311, compared to \$44,942 at December 31, 2017 and \$25,219 at December 31, 2016. These loans are included as participations purchased stated above.

INVESTMENT SECURITIES

As permitted under FCA regulations, the Association is authorized to hold eligible investments for the purposes of reducing interest rate risk and managing surplus short-term funds. The Bank is responsible for approving the investment policies of the Association. The Bank annually reviews the investment portfolio of every Association that it funds. The Association's investments consist primarily of asset-backed securities (ABS). The ABSs amounted to \$0, \$0, and \$8 at December 31, 2018, December 31, 2017, and December 31, 2016, respectively. These ABSs are rated AAA, as they are guaranteed by the full faith and credit of the United States government. These securities are supported by various forms of credit enhancements including insurance guarantees from AAA rated insurers, over-collateralization and favorable priority of payments.

CREDIT RISK MANAGEMENT

Credit risk arises from the potential inability of an obligor to meet its repayment obligation. As part of the process to evaluate

the success of a loan, the Association continues to review the credit quality of the loan portfolio on an ongoing basis. With the approval of the Association Board of Directors, the Association establishes underwriting standards and lending policies that provide direction to loan officers. Underwriting standards include, among other things, an evaluation of:

- Character – borrower integrity and credit history
- Capacity – repayment capacity of the borrower based on cash flows from operations or other sources of income
- Collateral – protection for the lender in the event of default and a potential secondary source of repayment
- Capital – ability of the operation to survive unanticipated risks
- Conditions – intended use of the loan funds

The credit risk management process begins with an analysis of the borrower's credit history, repayment capacity, and financial position. Repayment capacity focuses on the borrower's ability to repay the loan based upon cash flows from operations or other sources of income, including non-farm income. Real estate loans must be collateralized by first liens on the real estate (collateral). As required by FCA regulations, each institution that makes loans on a collateralized basis must have collateral evaluation policies and procedures. Real estate mortgage loans may be made only in amounts up to 85 percent of the original appraised value of the property taken as collateral. The actual loan to appraised value when loans are made is generally lower than the statutory maximum percentage. In addition, each loan is assigned a credit risk rating based upon the underwriting standards. This credit risk rating process incorporates objective and subjective criteria to identify inherent strengths, weaknesses, and risks in a particular relationship.

We review the credit quality of the loan portfolio on an ongoing basis as part of our risk management practices. Each loan is classified according to the Uniform Classification System, which is used by all Farm Credit System institutions. Below are the classification definitions.

- Acceptable – Assets are expected to be fully collectible and represent the highest quality.
- Other Assets Especially Mentioned (OAEM) – Assets are currently collectible but exhibit some potential weakness.
- Substandard – Assets exhibit some serious weakness in repayment capacity, equity, and/or collateral pledged on the loan.
- Doubtful – Assets exhibit similar weaknesses to substandard assets. However, doubtful assets have additional weaknesses in existing 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 loans including accrued interest at December 31.

Credit Quality	2018	2017	2016
Acceptable & OAEM	94.28%	95.18%	94.28%
Substandard	5.72%	4.82%	5.72%
Doubtful	–%	–%	–%
Loss	–%	–%	–%
Total	100.00%	100.00%	100.00%

Nonperforming Assets

The Association's loan portfolio is divided into performing and high-risk categories. The Credit Department is responsible for servicing loans classified as high-risk. The high-risk assets, including accrued interest, are detailed below:

High-risk Assets	December 31,		
	2018	2017	2016
Nonaccrual loans	\$ 4,993	\$ 6,734	\$ 5,824
Restructured loans	5,544	5,310	2,345
Accruing loans 90 days past due	13	—	—
Total high-risk loans	10,550	12,044	8,169
Other property owned	356	33	569
Total high-risk assets	\$ 10,906	\$ 12,077	\$ 8,738
Ratios			
Nonaccrual loans to total loans	0.92%	1.29%	1.17%
High-risk assets to total assets	1.94%	2.22%	1.68%

Nonaccrual loans represent all loans where there is a reasonable doubt as to the collection of principal and/or future interest accruals under the contractual terms of the loan. In substance, nonaccrual loans reflect loans where the accrual of interest has been suspended. Nonaccrual loans decreased \$1,741 or 25.85% in 2018. This decrease primarily resulted from normal nonaccrual collections. Of the \$4,993 in nonaccrual volume at December 31, 2018, \$120 or 2.40%, compared to 28.11% and 5.07% at December 31, 2017 and 2016, respectively, was current as to scheduled principal and interest payments, but did not meet all regulatory requirements to be transferred into accrual status.

Loan restructuring is available to financially distressed borrowers. Restructuring of loans occurs when the Association grants a concession to a borrower based on either a court order or good faith in a borrower's ability to return to financial viability. The concessions can be in the form of a modification of terms or rates, a compromise of amounts owed, or deed in lieu of foreclosure. Other receipts of assets and/or equity to pay the loan in full or in part are also considered restructured loans. The type of alternative financing structure chosen is based on minimizing the loss incurred by both the Association and the borrower.

Allowance for Loan Losses

The allowance for loan losses at each period end was considered by Association management to be adequate to absorb probable losses existing in and inherent to its loan portfolio.

The following table presents the activity in the allowance for loan losses for the most recent three years.

Allowance for Loan Losses Activity:	Year Ended December 31,		
	2018	2017	2016
Balance at beginning of year	\$ 6,516	\$ 5,956	\$ 6,056
Charge-offs:			
Agribusiness	(806)	—	—
Production and intermediate-term	(52)	(12)	(82)
Rural Residential Real Estate	(9)	(8)	(73)
Real estate mortgage	(277)	(1)	(270)
Total charge-offs	(1,144)	(21)	(425)
Recoveries:			
Agribusiness	—	—	—
Production and intermediate-term	67	55	62
Rural Residential Real Estate	40	8	25
Real Estate Mortgage	273	16	1
Total recoveries	380	79	88
Net (charge-offs) recoveries	(764)	58	(337)
Provision for loan losses	982	502	237
Balance at end of year	\$ 6,734	\$ 6,516	\$ 5,956
Ratio of net (charge-offs) recoveries during the period to average loans outstanding during the period	(0.149)%	0.012%	(0.071)%

Loans are charged-off, wholly or partially, as appropriate, at the time they are determined to be uncollectible.

The allowance for loan losses by loan type for the most recent three years is as follows.

Allowance for Loan Losses by Type	December 31,		
	2018	2017	2016
Real estate mortgage	\$ 927	\$ 2,446	\$ 2,175
Production and intermediate-term	3,894	3,812	3,581
Agribusiness	1,825	145	90
Rural residential real estate	88	113	110
Other	—	—	—
Total Allowance	\$ 6,734	\$ 6,516	\$ 5,956

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

Allowance for Loan Losses as a Percentage of:	December 31,		
	2018	2017	2016
Total loans	1.24%	1.25%	1.20%
Nonperforming loans	153.92%	154.11%	293.69%
Nonaccrual loans	134.87%	96.76%	102.27%

Please refer to Note 3, *Loans and Allowance for Loan Losses*, of the Notes to the Consolidated Financial Statements, for further information concerning the allowance for loan losses.

RESULTS OF OPERATIONS*Net Interest Income*

Net interest income was \$14,100, \$13,731 and \$12,919 in 2018, 2017 and 2016, respectively. Net interest income is the difference between interest income and interest expense. Net interest income is the principal source of earnings for the Association and is impacted by volume, yields on assets and cost of debt. The effects of changes in average volume and

interest rates on net interest income over the past three years are presented in the following table:

Change in Net Interest Income:

	Volume*	Rate	Nonaccrual Income	Total
12/31/18 - 12/31/17				
Interest income	\$ 1,424	\$ 1,343	\$ (123)	\$ 2,767
Interest expense	(624)	(1,774)	—	(2,398)
Change in net interest income	\$ 800	\$ (431)	\$ (123)	\$ 369
12/31/17 - 12/31/16				
Interest income	\$ 491	\$ 1,454	\$ 200	\$ 1,945
Interest expense	(158)	(975)	—	(1,133)
Change in net interest income	\$ 333	\$ 479	\$ 200	\$ 812

* Volume variances can be the result of increased/decreased loan volume or from changes in the percentage composition of assets and liabilities between periods.

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,			Percentage Increase/(Decrease)	
	2018	2017	2016	2018/ 2017	2017/ 2016
	Loan fees	\$ 562	\$ 654	\$ 560	(14.07)%
Fees for financially related services	243	337	311	(27.89)%	8.36%
Patronage refund from other Farm Credit Institutions	6,634	7,140	5,763	(7.09)%	23.89%
Gains (losses) on sales of rural home loans	320	315	255	1.59%	23.53%
Gains (losses) on sales of premises and equipment, net	12	42	32	(7.14)%	31.25%
Gains (losses) on other transactions	(12)	—	—	100%	—
Insurance Fund Refunds	786	—	—	100%	—
Other noninterest income	2	23	2	(91.30)%	1050%
Total noninterest income	\$ 8,547	\$ 8,511	\$ 6,923	0.42%	22.94%

AgFirst Board of Directors made a decision to declare a special cash distribution to the association based on the Bank's income and capital levels in 2018, 2017, and 2016. The amount of special distribution received was \$3,468, \$3,817, and \$2,503 respectively.

Noninterest Expense

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

Noninterest Expense	For the Year Ended December 31,			Percentage Increase/(Decrease)	
	2018	2017	2016	2018/ 2017	2017/ 2016
	Salaries and employee benefits	\$ 7,914	\$ 7,136	\$ 7,921	10.90%
Occupancy and equipment	562	550	565	2.18%	(2.65)%
Insurance Fund premiums	310	502	561	(38.25)%	(10.52)%
(Gains) losses on other property owned	(17)	277	71	106.14%	290.14%
Other operating expenses	2,191	1,848	2,644	18.56%	(30.11)%
Total noninterest expense	\$10,960	\$10,313	\$11,762	6.27%	(12.32)%

Salaries and employee benefits increased in 2018 due to normal merit increases and a corporate incentive accrued for all employees based on association performance. Salaries and employee benefits decreased in 2017, as compared with 2016, primarily due to a reduction in force.

Insurance Fund premiums decreased 38.25 percent for the twelve months ended December 31, 2018, compared to the same period of 2017. The Farm Credit System Insurance Corporation

(FCSIC) changed the methodology in assessing the insurance premiums as a result of the 2008 Farm Bill. Please refer to the "Regulatory Matters" section of this management's discussion and analysis for details concerning the 2008 Farm Bill. The FCSIC set premiums at 15 basis points on adjusted insured debt outstanding reduced by guaranteed investments as compared to 16 basis points in the first half of 2016 and 18 basis points for the second half of 2016. In addition, for 2018, 2017, and 2016, there was a 10 basis point premium on the average principal outstanding of nonaccrual loans and any other-than-temporarily impaired investments.

Noninterest expense increased \$647 or 6.27 percent for December 31, 2018, as compared to the same period of 2017 which decreased \$1,449 or 12.32 percent compared to December 31, 2016. The primary reason for the increase in total noninterest expense in 2018 is attributable to an increase in salaries and employee benefits. The primary reason for the decrease in total noninterest expense for the period ended December 31, 2017 was attributable to a decrease in salaries and employee benefits, a decrease in insurance fund premiums, and a decrease in other expenses.

Income Taxes

The Association recorded a provision for income taxes of \$56 for the year ended December 31, 2018, as compared to a provision of \$131 for 2017 and \$0 for 2016. Refer to Note 2, *Summary of Significant Accounting Policies*, and Note 12, *Income Taxes*, of the Notes to the Consolidated Financial Statements, for more information concerning Association income taxes.

Key Results of Operations Comparisons

Key results of operations comparisons for each of the twelve months ended December 31 are shown in the following table:

Key Results of Operations Comparisons	For the 12 Months Ended		
	12/31/18	12/31/17	12/31/16
Return on average assets	2.02%	2.25%	1.60%
Return on average members' equity	11.03%	12.01%	8.62%
Net interest income as a percentage of average earning assets	2.76%	2.84%	2.73%
Net (charge-offs) recoveries to average loans	(0.149)%	0.012%	(0.071)%

A key factor in the growth of net income for future years will be continued improvement in net interest and noninterest income. Our goal is to generate earnings sufficient to fund operations, adequately capitalize the Association, and achieve an adequate rate of return for our members. To meet this goal, the Association must meet certain objectives. These objectives are to attract and maintain high quality loan volume priced at competitive rates and to manage credit risk in our entire portfolio, while efficiently meeting the credit needs of our members.

LIQUIDITY AND FUNDING SOURCES*Liquidity and Funding*

The principal source of funds for the Association is the borrowing relationship established with the Bank through a General Financing Agreement (GFA). The GFA utilizes the Association's credit and fiscal performance as criteria for establishing a line of credit on which the Association may draw funds. The Bank advances the funds to the Association, creating notes payable (or direct loans) to the Bank. The Bank manages interest rate risk through direct loan pricing and asset/liability management. The notes payable are segmented into variable rate and fixed rate components. The variable rate note is utilized by the Association to fund variable rate loan advances and operating funds requirements. The fixed rate note is used specifically to fund fixed rate loan advances made by the Association. Association capital levels effectively create a borrowing margin between the amount of loans outstanding and the amount of notes payable outstanding. This margin is commonly referred to as "Loanable Funds".

Total notes payable to the Bank at December 31, 2018, were \$451,508 as compared to \$428,422 at December 31, 2017. The increase of 5.39 percent is attributable to an increase in loan volume. The average volume of outstanding notes payable to the Bank was \$419,551 and \$396,827 for the years ended December 31, 2018 and 2017, respectively. Refer to Note 6, *Notes Payable to AgFirst Farm Credit Bank*, of the Notes to the Consolidated Financial Statements, for weighted average interest rates and maturities, and additional information concerning the Association's notes payable.

Liquidity management is the process whereby funds are made available to meet all financial commitments including the extension of credit, payment of operating expenses and payment of debt obligations. The Association receives access to funds through its borrowing relationship with the Bank and from income generated by operations. The liquidity policy of the Association is to manage cash balances to maximize debt

reduction and to increase loan volume. As borrower payments are received, they are applied to the Association's note payable to the Bank. The Association's participation in investments and other secondary market programs provides additional liquidity. Sufficient liquid funds have been available to meet all financial obligations. There are no known trends likely to result in a liquidity deficiency for the Association.

The Association had no lines of credit from third party financial institutions as of December 31, 2018.

Funds Management

The Bank and the Association manage assets and liabilities to provide a broad range of loan products and funding options, which are designed to allow the Association to be competitive in all interest rate environments. The primary objective of the asset/liability management process is to provide stable and rising earnings, while maintaining adequate capital levels by managing exposure to credit and interest rate risks.

Demand for loan types is a driving force in establishing a funds management strategy. The Association offers fixed, adjustable and variable rate loan products that are marginally priced according to financial market rates. Variable rate loans may be indexed to market indices such as the Prime Rate or the 30-day London Interbank Offered Rate (LIBOR). Adjustable rate mortgages are indexed to U.S. Treasury Rates. Fixed rate loans are priced based on the current cost of System debt of similar terms to maturity.

The majority of the interest rate risk in the Association's Consolidated Balance Sheets is transferred to the Bank through the notes payable structure. The Bank, in turn, actively utilizes funds management techniques to identify, quantify and control risk associated with the loan portfolio.

Relationship with the Bank

The Association's statutory obligation to borrow only from the Bank is discussed in Note 6, *Notes Payable to AgFirst Farm Credit Bank*, of the Notes to the Consolidated Financial Statements in this annual report.

The Bank's ability to access capital of the Association is discussed in Note 4, *Investments in Other Farm Credit Institutions*, of the Notes to the Consolidated Financial Statements.

The Bank's role in mitigating the Association's exposure to interest rate risk is described in the "Liquidity and Funding Sources" section of this Management's Discussion and Analysis and in Note 6, *Notes Payable to AgFirst Farm Credit Bank*, included in this Annual Report.

CAPITAL RESOURCES

Capital serves to support asset growth and provide protection against unexpected credit and interest rate risk and operating losses. Capital is also needed for future growth and investment in new products and services.

The Association Board of Directors establishes, adopts, and maintains a formal written capital adequacy plan 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. There were no material changes to the capital plan for 2018 that would affect minimum stock purchases or would have an effect on the Association's ability to retire stock and distribute earnings.

Total members' equity at December 31, 2018, increased 2.60 percent to \$98,029 from the December 31, 2017, total of \$95,543. At December 31, 2017, total members' equity increased 4.22 percent from the December 31, 2016 total of \$91,675. The increase was primarily attributed to association earnings.

Total capital stock and participation certificates were \$4,478 on December 31, 2018, compared to \$4,428 on December 31, 2017 and \$4,404 on December 31, 2016.

FCA sets minimum regulatory capital requirements for System banks and associations. Capital adequacy is evaluated using a number of regulatory ratios. According to the FCA regulations, each institution's permanent capital ratio is calculated by dividing permanent capital by a risk adjusted asset base. Risk adjusted assets mean the total dollar amount of the institution's assets adjusted by an appropriate credit conversion factor as defined by regulation. For all periods represented, the Association exceeded minimum regulatory standard for all the ratios.

The following sets forth the regulatory capital ratios which were effective January 1, 2017:

Ratio	Minimum Requirement	Capital Conservation Buffer*	Minimum Requirement with Capital Conservation Buffer	Capital Ratios as of December 31,	
				2018	2017
Risk-adjusted ratios:					
CET1 Capital	4.5%	1.25%	5.75%	16.32%	15.97%
Tier 1 Capital	6.0%	1.25%	7.25%	16.32%	15.97%
Total Capital	8.0%	1.25%	9.25%	17.86%	17.51%
Permanent Capital	7.0%	0.0%	7.0%	18.64%	19.04%
Non-risk-adjusted ratios:					
Tier 1 Leverage	4.0%	1.0%	5.0%	14.79%	14.60%
URE and UREE Leverage	1.5%	0.0%	1.5%	14.47%	14.40%

* The capital conservation buffers have a 3 year phase-in period and will become fully effective January 1, 2020. Risk-adjusted ratio minimums will increase 0.625% each year until fully phased in. There is no phase-in period for the tier 1 leverage ratio.

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 regulatory Capital ratios as previously reported:

	Regulatory Minimum	2016	2015	2014	2013	2012
Permanent Capital Ratio	7.00%	19.38%	19.16%	18.20%	18.45%	17.41%
Total Surplus Ratio	7.00%	18.61%	18.36%	17.33%	17.48%	16.28%
Core Surplus Ratio	3.50%	17.37%	17.24%	16.20%	16.29%	14.32%

See Note 7, *Members' Equity*, of the Consolidated Financial Statements, for further information concerning capital resources.

PATRONAGE PROGRAM

Prior to the beginning of any fiscal year, the Association's Board of Directors, by adoption of a resolution, may establish a Patronage Allocation Program to distribute its available consolidated net earnings. This resolution provides for the application of net earnings in the manner described in the Association's Bylaws. This includes the setting aside of funds to increase surplus to meet minimum capital adequacy standards established by FCA Regulations, to increase surplus to meet Association capital adequacy standards to a level necessary to support competitive pricing at targeted earnings levels, and for reasonable reserves for necessary purposes of the Association. After excluding net earnings attributable to (a) the portion of loans participated to another institution, and (b) participation loans purchased, remaining consolidated net earnings are eligible for allocation to borrowers. Refer to Note 7, *Members' Equity*, of the Notes to the Consolidated Financial Statements, for more information concerning the patronage distributions.

The Association declared patronage distributions of \$9,272 in 2018, \$9,980 in 2017, and \$5,776 in 2016.

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

The Association's mission is to provide financial services to agriculture and the rural community, which includes providing credit to Young*, Beginning** and Small*** farmers. Because of the unique needs of these individuals, and their importance to the future growth of the Association, the Association has established annual marketing goals to increase our market share 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 have access to a stable source of credit. As a result, 2018 goals were exceeded for Beginning and Small Farmers; however, Young Farmers were slightly under the goal.

The following table outlines the loan volume and number of YBS loans in the loan portfolio for the Association.

	As of December 31, 2018	
	Number of Loans	Amount of Loans <i>(dollars in thousands)</i>
Young	652	\$82,480
Beginning	1,227	\$144,133
Small	2,801	\$202,909

Note: For purposes of the above table, a loan could be classified in more than one category, depending upon the characteristics of the underlying borrower.

The 2012 USDA Ag census data is the latest data available. It has been used as a benchmark to measure penetration of the Association's marketing efforts. The census data indicated that within the Association's chartered territory (counties) there were 11,155 reported farmers of which by definition 449 or 4.00 percent were Young, 1,980 or 17.70 percent were Beginning and 10,310 or 92.40 percent were Small. Comparatively, as of December 2018, the demographics of the Association's agricultural portfolio contained 3,020 farmers, of which by definition 453 or 15.0 percent were Young, 911 or 30.2 percent were Beginning and 2,027 or 67.1 percent were Small.

ACA's goals are to maintain our YBS percentages at the 2018 level, but in no case slip below the goals set in the Business Plan of 10% for Young, 15% for Beginning and 30% for Small farmers. The differences in the census data and the Association data are primarily in the definition differences in Young, Beginning and Small farmers. The Association assigns Young, Beginning and Small based on the age, years of experience and income of the youngest individual involved in the operation. Our numbers also include farmers that do not own farmland but rent all of their land.

The Association addresses the specific credit programs and partnerships that have been developed to help small farmers, young farmers, and farmers just starting out. It comprises programs offered by:

1. The Farm Service Agency (FSA), which includes guaranteed and direct loans to qualifying borrowers. The Association is a Preferred Lender, a status designated by the FSA.
2. KAFC Beginning Farmer Program – the state of Kentucky has special interest rates for loans up to \$250,000 for YBS in combination with ACA direct loans, with ACA as servicer of the account.
3. Agricultural Infrastructure Loan Program – the state of Kentucky has developed this program for past Tobacco Producers. The program gives a low interest rate on loans up to \$150,000 in combination with ACA direct loans on any infrastructure on their farms. ACA is the servicer of the account.
4. Association loan program to specifically target Young, Beginning and Small farmers.

The Association sponsors local events (such as 4-H, FFA fairs, and Cattle Producers Association) or events where the Association is an exhibitor (such as industry or trade shows).

The Association is committed to the future success of Young, Beginning and Small farmers.

- * Young farmers are defined as those farmers, ranchers, producers or harvesters of aquatic products who are age 35 or younger as of the date the loan is originally made.
- ** Beginning farmers are defined as those farmers, ranchers, producers or harvesters of aquatic products who have 10 years or less farming or ranching experience as of the date the loan is originally made.
- *** Small farmers are defined as those farmers, ranchers, producers or harvesters of aquatic products who normally generate less than \$250,000 in annual gross sales of agricultural or aquatic products at the date the loan is originally made.

REGULATORY MATTERS

On May 10, 2018, the Farm Credit Administration adopted a final rule that amends the regulations governing investments of System banks and associations. The final rule strengthens eligibility criteria for the investments the banks may purchase and hold. It also implements Section 939A of the Dodd-Frank Act by removing references to and requirements for credit ratings and substitutes the eligibility requirement with other appropriate standards of credit worthiness. In addition, it grants associations greater flexibility regarding the risk management purposes for investments and limits the type and amount of investments that an association may hold. Only securities that are issued by, or are unconditionally guaranteed or insured as to the timely payment of principal and interest by, the U.S. government or its agencies are eligible for association risk management purposes. An association may purchase and hold investments not to exceed 10 percent of its 90-day average daily balance of outstanding loans on the last business day of the quarter. The final rule became effective January 1, 2019.

Farm Bill

The Agricultural Improvement Act of 2018 (Farm Bill) was signed into law on December 20, 2018. This new Farm Bill will govern an array of federal farm and food programs, including commodity price support payments, farm credit, conservation programs, research, rural development and foreign and domestic food programs for five years through 2023. The new Farm Bill continues to provide support for crop insurance and commodity support programs, strengthen livestock disaster programs, and provides dairy producers with an updated voluntary margin protection program that will provide additional risk management options to dairy operations.

The Farm Bill also clarifies and updates the Insurance Corporation's authorities to act as conservator or receiver of a System institution. The Congressional Conference Committee report states that Congress intends "for the authorities of the Corporation to be functionally equivalent to the parallel authorities of the Federal Deposit Insurance Corporation." In addition, the Farm Bill provides, among other authorities, the Insurance Corporation with the authority to organize, and the Farm Credit Administration to charter, a System bridge bank, which has all the powers of a System bank with a maximum life span of five years.

Many provisions of the Farm Bill will require the United States Department of Agriculture to develop rules and procedures to fully implement these authorities. The timing for the issuance of those rules is uncertain.

LIBOR TRANSITION

On July 27, 2017, the United Kingdom Financial Conduct Authority (the Conduct Authority) announced that it will no longer persuade or compel such banks to submit rates for the calculation of the LIBOR rates after 2021. The Conduct Authority regulates the panel banks that submit quotes for the purpose of calculating LIBOR to the Intercontinental Exchange (ICE) Benchmark Administration (the entity that is responsible for calculating LIBOR). Accordingly, it is uncertain whether the ICE Benchmark Administration will continue to quote LIBOR after 2021. Furthermore, in the United States, efforts to identify a set of alternative U.S. dollar reference interest rates include proposals by the Alternative Reference Rates Committee (ARRC) of the Federal Reserve Board and the Federal Reserve Bank of New York. Specifically, the ARRC has proposed the Secured Overnight Financing Rate (SOFR) as the recommended alternative to LIBOR and the Federal Reserve Bank of New York began publishing SOFR in April of 2018. SOFR is based on a broad segment of the overnight Treasury repurchase market and is a broad measure of the cost of borrowing cash overnight collateralized by Treasury securities.

At this time, it is not possible to predict, among other uncertainties, whether (i) LIBOR will be discontinued, (ii) the effect of any changes to the methodology for calculating LIBOR, or (iii) any establishment of alternative reference rates or any other reforms to LIBOR that may be enacted in the United Kingdom, in the United States or elsewhere. Uncertainty as to the nature of such potential changes, alternative reference rates or other reforms may adversely affect the trading market for LIBOR based instruments, including certain of the Systemwide Debt Securities, System borrowings, loans, investments, derivatives, other System assets and liabilities and preferred stock that are indexed to LIBOR. Accordingly, reform of, or the replacement or disappearance of, LIBOR and the proposed regulation of LIBOR and other “benchmarks” may adversely affect the rates of interest the System pays on its Systemwide Debt Securities (including changes to their value and liquidity, return, and usefulness for intended purpose), on

other borrowings and preferred stock, as well as the value of and return on loans and investments and the value and effectiveness of derivatives. This could adversely affect the System’s cash flows. Moreover, if LIBOR is replaced, System institutions will need to take steps to restructure their debt and derivatives, which could adversely affect operations.

The System institutions are currently evaluating the potential impact of the eventual replacement of the LIBOR benchmark interest rate, including the possibility of using SOFR as the alternative to LIBOR. While each system institution is required by the regulator to have a transition plan, the transition from LIBOR to SOFR is expected to be complex and to include the development of term and credit adjustments to minimize, to the extent possible, discrepancies between LIBOR and SOFR. Accordingly, the transition may introduce additional basis risk for market participants, including when an alternative index, e.g., SOFR, exists in conjunction with LIBOR. There can be no guarantee that SOFR will become the dominant alternative to U.S. dollar LIBOR or that SOFR will be widely used. In addition, other alternatives may or may not be developed with additional complications.

Changes in LIBOR may result in interest rates and/or payments that are higher or lower than, or that do not otherwise correlate over time with, the interest rates and/or payments that would have been associated with LIBOR-based Systemwide Debt Securities, or loans or investments that are based on LIBOR, which may increase or decrease the payments to be made on such LIBOR-based Systemwide Debt Securities, or loans or investments that are based on LIBOR.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

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

The following Accounting Standards Updates (ASUs) were issued by the Financial Accounting Standards Board (FASB) but have not yet been adopted:

Summary of Guidance	Adoption and Potential Financial Statement Impact
ASU 2016-13 – Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments	
<ul style="list-style-type: none"> • 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 complete remaining life of the financial assets. • Changes the present incurred loss impairment guidance for loans to a CECL model. • The Update also 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. • Eliminates existing guidance for purchased credit impaired (PCI) loans, and requires recognition of an allowance for expected credit losses on these financial assets. • 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, 2020, and interim periods within those fiscal years. Early application will be permitted for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. 	<ul style="list-style-type: none"> • The Association has begun implementation efforts by establishing a cross-discipline governance structure and will implement a third-party model. The Association is currently identifying key interpretive issues and assessing processes against the new guidance to determine what modifications may be required. • The Association expects that the new guidance will result in an increase in its allowance for credit losses due to several factors, including: <ol style="list-style-type: none"> 1. The allowance related to loans and commitments will most likely increase to cover credit losses over the full remaining expected life of the portfolio, and will consider expected future changes in macroeconomic conditions, 2. An allowance will be established for estimated credit losses on any debt securities, 3. The nonaccretable difference on any PCI loans will be recognized as an allowance, offset by an increase in the carrying value of the related loans. • The extent of the increase is under evaluation, but will depend upon the nature and characteristics of the Association’s portfolio at the adoption date, and the macroeconomic conditions and forecasts at that date. • The Association expects to adopt the guidance in first quarter 2021.

<i>ASU 2016-02 – Leases (Topic 842)</i>	
<ul style="list-style-type: none"> • Requires lessees to recognize leases on the balance sheet with lease liabilities and corresponding right-of-use assets based on the present value of lease payments. • Lessor accounting activities are largely unchanged from existing lease accounting. • The Update also eliminates leveraged lease accounting but allows existing leveraged leases to continue their current accounting until maturity, termination or modification. • Also, expands qualitative and quantitative disclosures of leasing arrangements. • Requires adoption using a modified cumulative-effect approach wherein the guidance is applied to all periods presented. A recent amendment provides an additional (and optional) transition method to adopt the new leases standard. Under this new transition method, an entity initially applies the new leases standard at the adoption date and recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. • Effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. 	<ul style="list-style-type: none"> • The practical expedients allow entities to largely account for existing leases consistent with current guidance, except for the incremental balance sheet recognition for lessees. • The Association completed its evaluation of leasing contracts and activities and developed its methodology to estimate the right-of-use assets and lease liabilities, which is based on the present value of lease payments. There will not be a material change to the timing of expense recognition. • Given the limited changes to lessor accounting, there were no material changes to recognition or measurement for the Association. • The Association will need to provide additional disclosure information as a result of adopting the Update. • The Association adopted the guidance in first quarter 2019 using the optional modified retrospective method and practical expedients for transition. • Upon adoption, the Association will record a cumulative-effect adjustment to equity of approximately \$0. In addition, a Right of Use Asset in the amount of \$24 and Lease Liability in the amount of \$24 will be recorded.

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*, of the Consolidated Financial Statements included in this Annual Report to shareholders.

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

Unincorporated Business Entity (UBE)

River Valley AgCredit, ACA holds an equity investment at December 31, 2018 in the following Unincorporated Business Entities (UBEs) as an equity interest holder of the limited liability company (LLC). The LLCs were organized for the stated purpose of holding and managing unusual or complex collateral associated with former loans, until such time as the assets may be sold or otherwise disposed of pursuant to the terms of Operating Agreements of the respective LLCs.

Entity Name	Entity Type	Entity Purpose
Ethanol Holding Company, LLC	LLC	Manage Acquired Property
A1 Ledges Wilder LLC	LLC	Manage Acquired Property
A1 Sequatchie Point, LLC	LLC	Manage Acquired Property

Description of Property

The following table sets forth certain information regarding the properties of the reporting entity which are located in Kentucky and Tennessee:

Location	Description	Form of Ownership
328 E. Broadway Mayfield, KY	Administrative	Owned
408 E. Broadway Mayfield, KY	Administrative	Owned
196 US Hwy 51 North Bardwell, KY	Branch	Leased*
102 N Washington St. Clinton, KY	Branch	Owned
1514 Union City Hwy. Hickman, KY	Branch	Owned
12350 U.S. Highway 60 West Kevil, KY	Branch	Owned
1401 N. 12th St. Murray, KY	Branch	Owned
2730 U S Hwy. 641 N Benton, KY	Branch	Owned
545 Dick Castleman Bypass Mayfield, KY	Branch	Owned
3565 Lone Oak Rd, Suite 1 Paducah, KY	Branch	Leased**
2620 APD 40 Cleveland, TN	Branch	Owned
3270 Main St Pikeville, TN	Branch	Owned
1117 S Congress Parkway Athens, TN	Branch	Owned
230 Main Street Dayton, TN	Branch	Owned
2052 Hwy 72 Loudon, TN	Branch	Owned
601 Morrison Springs Rd Chattanooga, TN	Branch	Owned

*Five year lease expiring 3/31/19. Monthly payment \$1,620.00.

**Five-year lease beginning 12/1/12 & terminating 11/30/17. Monthly payment \$2,000.00. Addendum done 6/1/16 to increase payment by \$825.55, to expire 5/31/19.

Legal Proceedings

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

Description of Capital Structure

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

Description of Liabilities

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

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

“Management’s Discussion and Analysis of Financial Condition and Results of Operations,” which appears in this Annual Report 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 Association and their business experience for the past five years:

Name and Title	Term of Office	Prior Experience
Kyle Yancey, Chief Executive Officer	1/1/2016 - Present	CEO Elect-Aug 2014-Dec 2015 Chief Credit Officer,2013-Aug 2014
Kevin Brown, Chief Lending Officer	2/1/2012 – present	
Miranda Robertson, Chief Credit Officer	1/1/2018 – present	Loan Officer-2016-2017 VP of Ag & Commercial Banking with another financial institution-2014-2015
Beth Barkley, Chief Financial Officer	1/1/2014 – present	

The total amount of compensation earned by the CEO and the highest paid officers as a group during the years ended December 31, 2018, 2017 and 2016, is as follows:

Name of Individual or Number in Group	Year	Annual				
		Salary	Bonus	Perq/ Other*	Pension Change	Total
Kyle Yancey	2018	\$ 269,120	\$ 51,333	\$ 3,661	\$ 2,501	\$ 326,615
Kyle Yancey	2017	\$ 259,393	\$ 45,392	\$ 2,133	\$ 156,334	\$ 463,252
Kyle Yancey	2016	\$ 250,017	\$ 25,563	\$ 2,665	\$ 90,815	\$ 369,060
6	2018	\$ 785,709	\$ 119,164	\$ 8,407	\$ (33,621)	\$ 879,659
6	2017	\$ 615,286	\$ 78,054	\$ 5,845	\$ 608,403	\$ 1,307,588
6	2016	\$ 811,047	\$ 59,711	\$ 9,843	\$ 681,062	\$ 1,561,663

*Amounts in the above table classified as Perquisites include group life insurance and automobile compensation.

The disclosure of information on the total compensation paid during 2018 to any senior officer or to any other employee included in the aggregate group total as reported in the table above is available and will be disclosed to the shareholders of the institution upon request.

The Association participates in multi-association, District and multi-District sponsored benefit plans. Change in pension value is considered a part of compensation. The following Pension Benefits table reflects number of years credited service, actuarial present value of accumulated benefits, along with any payments made during 2018 for the CEO and senior officers and other highly compensated employees as a group.

Name of Individual or Number in Group	Year	Plan Name	Number of Years Credited Service	Actuarial Present Value of Accumulated Benefits	Payments During 2018
Kyle Yancey	2018	IARP	13	\$369,468	\$-
6 Officers, excluding the CEO	2018	IARP	22*	\$3,806,478	\$-

*Represents the average years of credited service for the group

In addition to a base salary, senior officers earn additional compensation under an incentive plan which is tied to the overall business performance and the individual’s performance appraisal rating. The Association incentive plan is designed to motivate employees to exceed the business plan goals during the fiscal year. These goals typically include return on assets, credit quality, credit administration, loan volume, nonaccrual

loan volume, permanent capital and other key ratios. Those covered by the plan include all employees. Also all employees except Administrative staff participate in insurance and lease incentive plans designed to motivate employees to increase insurance sales and leasing fee income to benefit the member as well as the Association. Additional incentive plans available to all employees include member referral incentives designed to encourage employees to promote new business through personal contacts. Bonuses are shown in the year earned, which may be different than the year of payment. Additionally, all employees are reimbursed for all direct travel expenses incurred when traveling on Association business. A copy of the travel policy is available to shareholders upon written request. Disclosure of information on the total compensation paid during 2018 to any senior officer, or to any other individual included in the total, is available to shareholders upon request.

Directors

The following chart details the year the director began serving on the board, the current term of expiration, and total cash compensation paid:

DIRECTOR	ORIGINAL YEAR OF ELECTION OR APPOINTMENT	CURRENT TERM EXPIRATION	TOTAL COMP. PAID DURING 2018
David Richesin, <i>Chairman</i>	2008*	2020	\$ 15,020
Joe Campbell, <i>Vice Chairman</i>	2000	2019	14,810
Darren Grogan	2008	2020	11,425
Randall Heath	2006	2019	11,770
Buddy D. Ray, <i>Outside Dir</i>	2003	2019	13,270
Curtis Hancock, Jr	1991	2018	9,000
David Singleton	1996*	2018	8,020
Aaron Wilson	2009	2018	11,635
Tiffany Myers, <i>Outside Dir</i>	2015	2020	9,905
Brandon Strasser	2015	2019	13,155
Andrew Falwell	2018	2021	1,500
Don Massengale	2018	2021	1,750
			\$ 121,260

*Original year of election or appointment to the Board of Directors of Chattanooga, ACA.

The following represents certain information regarding the directors of the Association, including their principal occupation and employment for the past five years. Unless specifically listed, the principal occupation of the board member for the past five years has been as a self-employed farmer.

Mr. David Richesin, Chairman, is a row crop operator headquartered in Loudon County, TN. He is President of the Board of Directors of Loudon County Farm Bureau and State Board Director of Tennessee Farm Bureau. He is also a member of the Ag Central Farmers Coop. Mr. Richesin received his BS degree in Agricultural Business from University of Tennessee.

Mr. Joe F. Campbell, Vice Chairman, operates a row crop farming operation in Fulton County, KY and is the owner and operator of Campbell Appraisal Services. He is a member of the Kentucky and Tennessee Society of Farm Managers and Rural Appraisers. Mr. Campbell has a BS degree in Administrative Management from Murray State University.

Mr. Curtis Hancock, Jr., operates a row crop program in Hickman County, KY. He serves as State Treasurer for Kentucky Farm Business Analysis Group, serves on the AgFirst District Farm Credit Council, serves on the National Farm Credit Council Board in Washington, DC, and serves on the AgFirst FCB Board of Directors. Mr. Hancock received his BS in agriculture from University of Tennessee at Martin and his MS in Ag Economics from the University of Tennessee at Knoxville.

Mr. Darren Grogan serves as Chairman of the Audit Committee. He operates a row crop operation headquartered in Carlisle County, KY. Mr. Grogan is a graduate of Ashford University with a BA degree in Economics with specialization in Finance and a minor in Accounting.

Mr. Randall Heath operates a row crop farming operation in Graves County, KY. Mr. Heath serves on the board of Graves County Farm Bureau.

Mrs. Tiffany Myers, Outside Director, is a licensed Certified Public Accountant for the state of Kentucky and is employed as the Chief Financial Officer for WK&T Telecommunications of Mayfield, KY. She serves as Treasurer for Bethel Cumberland Presbyterian Church. Mrs. Myers received her degree in accounting from Murray State University.

Dr. Buddy D. Ray, DVM, Outside Director, is a veterinarian at the Bovine Consulting Associates, LLC. He also serves on the Bayer Large Animal Advisory Board and Merck Food Animal Advisory Council. Dr. Ray received his BS degree in Agriculture from Murray State University and received his DVM from Auburn University.

Mr. David Singleton operates 134 acres in Bledsoe County, TN on which he raises beef cattle, hay, and poultry. He is former President and Director of Bledsoe Cattlemen's Association and a former director and current member of the Southeastern Farmers' Cooperative and of the TN Poultry Association.

Mr. Brandon Strasser owns a farming partnership with his parents consisting of approximately 225 milk cows. He received his Bachelor's degree in Animal Science from the University of TN, Knoxville, and completed Agricultural Economics graduate course work from Texas A&M University.

Mr. Aaron Wilson served as Chairman of the Credit Risk Committee. He operates a row crop and cow/calf farming program in Ballard County, KY. He serves as Chairman of the Ballard County Soil Conservation Department and is a member of the UST/MSU Ag Leadership Development Class. Mr. Wilson received his BS degree in Biology from Transylvania University.

Mr. Andrew Falwell co-owns/operates a row crop and tobacco operation in Murray, KY, consisting of corn, soybeans, wheat, air cured dark tobacco, dark fired tobacco and fruits & vegetables. He serves on the board at East Calloway Elementary School on the Site Base Decision Making Committee and serves as a deacon at Glendale Road Church of Christ. Mr. Falwell received his BS degree from Murray State University and his Master's degree from Purdue University.

Mr. Don Massengale is the owner/operator of a 50 head cow/calf operation with freezer beef sales and replacement heifers in Rhea County, TN. He also raises corn for silage and grain, wheat grain and hay, and grass hay. He serves as Vice President on the Rhea County Fair Board, Vice-Chairman for the Rhea County Cattlemen's Association, and is a former member of the Rhea County Ambulance Committee. Mr. Massengale is also currently a member of the Rhea County Farm Bureau, the TN Cattlemen's Association, and the TN Poultry Association.

Subject to approval by the board, the Association may allow directors honoraria of \$500 for attendance at meetings, committee meetings, or special assignments. The Chairman of the Board and all other directors are paid a quarterly retainer fee of \$1,000 and \$500 respectively. Total compensation paid to directors as a group was \$93,260.

The following chart details the number of meetings, other activities and additional compensation paid for other activities (if applicable), and current committee assignments for each director:

Name of Director	Days Served		Committee Assignments	Comp. Paid for other Activities*
	Regular Board Meetings	Other Official Activities*		
David Richesin, <i>Chairman</i>	6	14	Governance/ Compensation	\$ 12,020
Joe Campbell, <i>Vice Chairman</i>	5	18	Governance/ Compensation, Audit	12,310
Brandon Strasser	6	14	Audit	10,155
Tiffany Myers, <i>Outside Dir</i>	6	8	Audit	6,905
Darren Grogan	5	12	Governance/ Compensation, Audit	8,925
Randall Heath	6	12	Credit Risk	8,770
Buddy D Ray, <i>Outside Dir</i>	6	15	Credit Risk	10,270
Curtis Hancock, Jr.	5	8	Credit Risk	6,500
David Singleton	4	7	Credit Risk	6,020
Aaron Wilson	5	13	Governance/ Compensation, Credit Risk	9,135
Andrew Falwell	1	2	Credit Risk	1,000
Don Massengale	1	2	Credit Risk	1,250
				<u>\$ 93,260</u>

*Includes board committee meetings and other board activities other than regular board meetings and quarterly retainer fees.

Directors and senior officers 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 of the Association upon request.

The aggregate amount of reimbursement for travel, subsistence and other related expenses for all directors as a group was \$18,400 for 2018, \$9,864 for 2017 and \$28,213 for 2016.

Transactions with Senior Officers and Directors

The reporting entity's policies on loans to and transactions with its officers and directors, to be disclosed in this section are incorporated herein by reference to Note 10, *Related Party Transactions*, of the Consolidated Financial Statements included in this Annual Report. FCA regulation requires the disclosure of the purchase or retirement of Association preferred stock held by an Association officer or director. There have been no transactions between the Association 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

Dixon Hughes Goodman LLP has been the Association's principal auditor since 2011. There were no changes in or material disagreements with our independent registered public accounting firm on any matter of accounting principles or financial statement disclosure during this period.

Aggregate fees paid by the Association for services rendered by its independent registered public accounting firm for the year ended December 31, 2018 were as follows:

	2018
Independent Registered Public Accounting Firm	
Dixon Hughes Goodman LLP	
Audit services	\$ 66,250
Total	<u>\$ 66,250</u>

Audit fees were for the annual audit of the consolidated financial statements.

Consolidated Financial Statements

The Consolidated Financial Statements, together with the report thereon of Dixon Hughes Goodman LLP dated March 13, 2019 and the report of management, which appear in this Annual Report are incorporated herein by reference.

Copies of the Association's quarterly reports are available upon request free of charge by calling 1-270-247-5613 or writing Beth Barkley, River Valley AgCredit, ACA, P. O. Box 309, Mayfield, KY 42066 or accessing the website, www.rivervalleyagcredit.com. The Association prepares an electronic version of the Annual Report which is available on the Association's web site within 75 days after the end of the fiscal year and distributes the Annual Reports to shareholders within 90 days after the end of the fiscal year. The Association prepares an electronic version of the Quarterly report within 40 days after the end of each fiscal quarter, except that no report need be prepared for the fiscal quarter that coincides with the end of the fiscal year of the institution.

Borrower Information Regulations

Since 1972, Farm Credit Administration (FCA) regulations have required that borrower information be held in strict confidence by Farm Credit System (FCS) 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 FCS 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. 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.

Credit and Services to Young, Beginning, and Small Farmers and Ranchers and Producers or Harvesters of Aquatic Products

Information to be disclosed in this section is incorporated herein by reference to the similarly named section in the Management's Discussion and Analysis of Financial Condition and Results of Operations section included in this Annual Report to the shareholders.

Shareholder Investment

Shareholder investment in the Association may be materially affected by the financial condition and results of operations of AgFirst Farm Credit Bank (Bank or AgFirst). Copies of the Bank's Annual and Quarterly reports are available upon request free of charge by calling 1-800-845-1745, ext. 378, or writing Susanne Caughman, AgFirst Farm Credit Bank, P. O. Box 1499, Columbia, SC 29202. Information concerning AgFirst Farm Credit Bank can also be obtained by going to AgFirst's web site at 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 the Quarterly report within 40 days after the end of each fiscal quarter, except that no report needs to be prepared for the fiscal quarter that coincides with the end of the fiscal year of the Bank.

Report of the Audit Committee

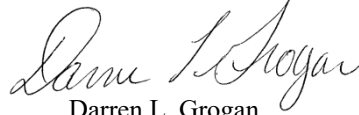
The Audit Committee of the Board of Directors (Committee) is comprised of the directors named below. None of the directors who serve on the Committee are employees of River Valley AgCredit, ACA (Association) and in the opinion of the Board of Directors, each is free of any relationship with the Association 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 Association's audited financial statements with management, which has primary responsibility for the financial statements.

Dixon Hughes Goodman LLP (DHG), the Association's auditor for 2018, is responsible for expressing an opinion on the conformity of the Association's audited financial statements with accounting principles generally accepted in the United States of America. The Committee has discussed with DHG the matters that are required to be discussed by Statement on Auditing Standards No. 114 (*The Auditor's Communication With Those Charged With Governance*). The Committee discussed with DHG its independence from River Valley AgCredit, ACA.

The Committee has also reviewed the non-audit services provided by DHG, if any, and concluded that these services were not incompatible with maintaining DHG'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 Association's Annual Report for 2018. The foregoing report is provided by the following independent directors, who constitute the Committee:



Darren L. Grogan

Chairman of the Audit Committee

Members of Audit Committee

Tiffany Myers

Curtis Hancock

Brandon Strasser

March 13, 2019



INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Members
River Valley AgCredit, ACA
Mayfield, KY

We have audited the accompanying consolidated financial statements of River Valley AgCredit, ACA (the "Association") which comprise the consolidated balance sheets as of December 31, 2018, 2017, and 2016, and the related consolidated statements of comprehensive income, changes in members' equity and cash flows for the years then ended and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of River Valley AgCredit, ACA as of December 31, 2018, 2017 and 2016, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Dixon Hughes Goodman LLP
Atlanta, Georgia

March 13, 2019

Consolidated Balance Sheets

<i>(dollars in thousands)</i>	December 31,		
	2018	2017	2016
Assets			
Cash	\$ 1,084	\$ 644	\$ 675
Investments in debt securities:			
Held to maturity (fair value of \$0, \$0, and \$8, respectively)	—	—	8
Loans	540,945	522,313	496,247
Allowance for loan losses	(6,734)	(6,516)	(5,956)
Net loans	534,211	515,797	490,291
Loans held for sale	—	710	643
Accrued interest receivable	8,460	7,015	6,025
Equity investments in other Farm Credit institutions	6,175	5,953	6,671
Premises and equipment, net	5,708	5,576	5,942
Other property owned	356	33	569
Accounts receivable	6,907	7,152	6,991
Other assets	462	20	1,976
Total assets	\$ 563,363	\$ 542,900	\$ 519,791
Liabilities			
Notes payable to AgFirst Farm Credit Bank	\$ 451,508	\$ 428,422	\$ 411,707
Accrued interest payable	1,255	1,019	836
Patronage refunds payable	3,743	5,216	3,202
Accounts payable	480	743	963
Advanced conditional payments	2,234	3,628	2,788
Other liabilities	6,114	8,329	8,620
Total liabilities	465,334	447,357	428,116
Commitments and contingencies (Note 11)			
Members' Equity			
Capital stock and participation certificates	4,478	4,428	4,404
Additional paid-in-capital	15,817	15,817	15,817
Retained earnings			
Allocated	43,889	42,830	39,816
Unallocated	33,845	32,468	31,638
Total members' equity	98,029	95,543	91,675
Total liabilities and members' equity	\$ 563,363	\$ 542,900	\$ 519,791

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

Consolidated Statements of Comprehensive Income

<i>(dollars in thousands)</i>	For the year ended December 31,		
	2018	2017	2016
Interest Income			
Loans	\$ 27,169	\$ 24,402	\$ 22,457
Interest Expense			
Notes payable to AgFirst Farm Credit Bank	13,006	10,637	9,500
Other	63	34	38
Total interest expense	13,069	10,671	9,538
Net interest income	14,100	13,731	12,919
Provision for loan losses	982	502	237
Net interest income after provision for loan losses	13,118	13,229	12,682
Noninterest Income			
Loan fees	562	654	560
Fees for financially related services	243	337	311
Patronage refunds from other Farm Credit institutions	6,634	7,140	5,763
Gains (losses) on sales of rural home loans, net	320	315	255
Gains (losses) on sales of premises and equipment, net	12	42	32
Gains (losses) on other transactions	(12)	—	—
Insurance Fund refunds	786	—	—
Other noninterest income	2	23	2
Total noninterest income	8,547	8,511	6,923
Noninterest Expense			
Salaries and employee benefits	7,914	7,136	7,921
Occupancy and equipment	562	550	565
Insurance Fund premiums	310	502	561
(Gains) losses on other property owned, net	(17)	277	71
Other operating expenses	2,191	1,848	2,644
Total noninterest expense	10,960	10,313	11,762
Income before income taxes	10,705	11,427	7,843
Provision for income taxes	56	131	—
Net income	10,649	11,296	7,843
Other comprehensive income	—	—	—
Comprehensive income	\$ 10,649	\$ 11,296	\$ 7,843

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

Consolidated Statements of Changes in Members' Equity

<i>(dollars in thousands)</i>	Capital Stock and Participation Certificates	Additional Paid-in-Capital	Retained Earnings		Total Members' Equity
			Allocated	Unallocated	
Balance at December 31, 2015	\$ 4,541	\$ 15,817	\$ 39,882	\$ 28,974	\$ 89,214
Comprehensive income				7,843	7,843
Capital stock/participation certificates issued/(retired), net	(137)				(137)
Patronage distribution					
Cash				(2,906)	(2,906)
Nonqualified retained earnings			2,870	(2,870)	—
Retained earnings retired			(2,450)		(2,450)
Patronage distribution adjustment			(486)	597	111
Balance at December 31, 2016	\$ 4,404	\$ 15,817	\$ 39,816	\$ 31,638	\$ 91,675
Comprehensive income				11,296	11,296
Capital stock/participation certificates issued/(retired), net	24				24
Patronage distribution					
Cash				(4,921)	(4,921)
Nonqualified retained earnings			5,059	(5,059)	—
Retained earnings retired			(2,298)		(2,298)
Patronage distribution adjustment			253	(486)	(233)
Balance at December 31, 2017	\$ 4,428	\$ 15,817	\$ 42,830	\$ 32,468	\$ 95,543
Comprehensive income				10,649	10,649
Capital stock/participation certificates issued/(retired), net	50				50
Patronage distribution					
Cash				(3,386)	(3,386)
Nonqualified retained earnings			5,886	(5,886)	—
Retained earnings retired			(3,059)		(3,059)
Patronage distribution adjustment			(1,768)		(1,768)
Balance at December 31, 2018	\$ 4,478	\$ 15,817	\$ 43,889	\$ 33,845	\$ 98,029

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

Consolidated Statements of Cash Flows

<i>(dollars in thousands)</i>	For the year ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net income	\$ 10,649	\$ 11,296	\$ 7,843
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation on premises and equipment	288	260	272
Amortization (accretion) of net deferred loan costs (fees)	817	404	466
Amortization (accretion) of yield mark resulting from merger	(8)	(36)	(45)
Provision for loan losses	982	502	237
(Gains) losses on other property owned	(52)	218	7
(Gains) losses on sales of premises and equipment, net	(12)	(42)	(32)
(Gains) losses on sales of rural home loans, net	(320)	(315)	(255)
(Gains) losses on other transactions	12	—	—
Changes in operating assets and liabilities:			
Origination of loans held for sale	(20,539)	(20,844)	(16,273)
Proceeds from sales of loans held for sale, net	21,569	21,092	16,099
(Increase) decrease in accrued interest receivable	(1,445)	(990)	(811)
(Increase) decrease in accounts receivable	245	(161)	(740)
(Increase) decrease in other assets	(442)	1,956	769
Increase (decrease) in accrued interest payable	236	183	29
Increase (decrease) in accounts payable	(263)	(220)	488
Increase (decrease) in other liabilities	(2,227)	(291)	1,445
Total adjustments	(1,159)	1,716	1,656
Net cash provided by (used in) operating activities	9,490	13,012	9,499
Cash flows from investing activities:			
Proceeds from maturities of or principal payments received on investments in debt securities, held to maturity	—	8	14
Net (increase) decrease in loans	(20,586)	(26,459)	(6,270)
(Increase) decrease in equity investments in other Farm Credit institutions	(222)	718	286
Purchases of premises and equipment	(420)	(132)	(577)
Proceeds from sales of premises and equipment	12	280	32
Proceeds from sales of other property owned	80	361	537
Net cash provided by (used in) investing activities	(21,136)	(25,224)	(5,978)
Cash flows from financing activities:			
Advances on (repayment of) notes payable to AgFirst Farm Credit Bank, net	23,116	16,755	2,290
Net increase (decrease) in advanced conditional payments	(1,394)	840	(1,836)
Capital stock and participation certificates issued/(retired), net	50	24	(137)
Patronage refunds and dividends paid	(6,627)	(3,140)	(3,071)
Retained earnings retired	(3,059)	(2,298)	(2,450)
Net cash provided by (used in) financing activities	12,086	12,181	(5,204)
Net increase (decrease) in cash	440	(31)	(1,683)
Cash, beginning of period	644	675	2,358
Cash, end of period	\$ 1,084	\$ 644	\$ 675
Supplemental schedule of non-cash activities:			
Financed sales of other property owned	\$ 19	\$ —	\$ 50
Receipt of property in settlement of loans	370	43	271
Estimated cash dividends or patronage distributions declared or payable	3,386	4,921	2,906
Supplemental information:			
Interest paid	12,863	10,528	9,578
Taxes (refunded) paid, net	85	62	17

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

Notes to the Consolidated Financial Statements

(dollars in thousands, except as noted)

Note 1 — Organization and Operations

A. **Organization:** River Valley AgCredit, ACA (Association) is a member-owned cooperative that provides credit and credit-related services to qualified borrowers in the counties of Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Marshall and McCracken in the state of Kentucky and in the counties of Hamilton, Marion, Bradley, Polk, Bledsoe, Sequatchie, Monroe, Meigs, McMinn, Rhea, Loudon and Roane in the state of Tennessee.

The Association is a lending institution in the Farm Credit System (System), a nationwide network of cooperatively owned banks and associations. It was established by Acts of Congress and is subject to the provisions of the Farm Credit Act of 1971, as amended (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.

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 (Bank) and its related associations (Associations or District Associations) are collectively referred to as the AgFirst District. The District Associations jointly own substantially all of AgFirst's voting stock. As of year end, the District consisted of the Bank and nineteen District Associations. All nineteen were structured as ACA holding companies, with PCA and FLCA subsidiaries. FLCAs are tax-exempt while ACAs and PCAs are taxable.

The Farm Credit Administration (FCA) is delegated authority by Congress to regulate the System banks and associations. The FCA examines the activities of the associations and certain actions by the associations are subject to the prior approval of the FCA and the supervising bank.

The Farm Credit Act also established the Farm Credit System Insurance Corporation (Insurance Corporation) 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 Insurance Corporation to provide assistance to certain troubled System institutions and to cover the operating expenses of the Insurance Corporation. Each System bank has been required to pay premiums, which may be passed on to the Association, into the Insurance Fund, based on its average adjusted outstanding Insured Debt until the assets in the Insurance 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 Insurance Corporation at its sole discretion determines to be actuarially sound. When the amount in the Insurance Fund exceeds the secure base amount, the Insurance Corporation 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.

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

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

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 General Financing Agreement (GFA) between the Bank and 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' exposure to interest rate risk is minimized.

In addition to providing funding for earning assets, 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 cost of the Direct Note, or in some cases billed directly to certain Associations that use a specific service.

The Association is authorized to provide, either directly or in participation with other lenders, 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 Association may sell to any System borrowing member, on an optional basis, credit or term life insurance appropriate to protect the loan commitment in the event of death of the debtor(s). The sale of other insurance necessary to protect a member's farm or aquatic unit is permitted, but limited to hail and multi-peril crop insurance, and insurance necessary to protect the facilities and equipment of aquatic borrowers.

Note 2 — Summary of Significant Accounting Policies

The accounting and reporting policies of the Association conform with 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 management to make estimates and assumptions that affect the amounts reported in the Consolidated Financial Statements and accompanying notes. Significant estimates are discussed in these footnotes, as applicable. Actual results may differ from these estimates.

The accompanying consolidated financial statements include the accounts of the ACA, PCA and FLCA.

Certain amounts in the prior year financial statements have been reclassified to conform to the current period presentation. Such reclassifications had no effect on net income or total members' equity of prior years.

- A. **Cash:** Cash represents cash on hand and on deposit at banks.
- B. **Loans and Allowance for Loan Losses:** The Association is authorized to make long-term real estate loans with maturities of 5 to 40 years and certain short- and intermediate-term loans for agricultural production or operating purposes with maturities of not more than 10 years.

Loans are carried at their principal amount outstanding adjusted for charge-offs, premiums, discounts, deferred loan fees or costs, and derivative instruments 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 may be deferred as part of the carrying amount of the loan and the net difference amortized over the life of the related loan as an adjustment to interest income using the effective 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 (unless adequately collateralized 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) or charged against the allowance for loan losses (if accrued in the prior year).

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 a borrower experiences financial difficulties and the Association 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 Association 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 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. 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 Association 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 Association considers the following factors, among others, when determining the allowance for loan losses:

- Changes in credit risk classifications
- Changes in collateral values
- Changes in risk concentrations
- Changes in weather-related conditions
- Changes in economic conditions

A specific allowance may be established for impaired loans under Financial Accounting Standards Board (FASB)

guidance on accounting by creditors for impairment of a loan. Impairment of these loans is measured based on the present value of expected future cash flows discounted at the loan's effective interest rate or, as practically expedient, at 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 under FASB guidance on accounting for contingencies, to reflect estimated probable credit losses inherent in the remainder of the loan portfolio which excludes impaired loans considered 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.

The credit risk rating methodology is a key component of the Association's allowance for loan losses evaluation, and is generally incorporated into the institution's loan underwriting standards and internal lending limit. The Association 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. 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 14 categories carries a distinct percentage of default probability. The 14-point risk rating 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 more rapidly as a loan moves from a "9" to other assets especially mentioned and grows significantly as a loan moves to a substandard (viable) level. A substandard (non-viable) rating indicates that the probability of default is almost certain.

Acquired loans are recorded at estimated fair value on their purchase date with no carryover of any related allowance for loan losses. Acquired loans were segregated between those considered to be credit impaired and those deemed performing. To make this determination, management considered such factors as past due status, nonaccrual status and credit risk ratings. The fair value of acquired performing loans was determined by discounting expected cash flows, both principal and interest, for each loan at prevailing market interest rates. The difference between the fair value and principal balances due at acquisition date, the fair value discount, is accreted into income over the estimated life of each loan.

For certain acquired loans that experienced deterioration in credit quality between origination and acquisition, the amount paid for the loan will reflect this fact. At acquisition, each loan is reviewed to determine whether there is evidence of deterioration of credit quality since origination and if it is probable that the Association would be unable to collect all amounts due according to the loan's contractual terms. If both conditions exist, the purchaser determines whether each such loan is to be accounted for individually or whether such loans would be assembled into pools of loans based on common risk characteristics (credit score, loan type, and date of origination, for example). Considerations of value should include expected prepayments, the estimated amount and timing of undiscounted expected principal, interest, and other cash flows (expected at acquisition) for each loan and the subsequently aggregated pool of loans. Any excess of the loan's or pool's scheduled principal and contractual interest payments over all of the cash flows expected at acquisition is an amount that should not be accreted to income (nonaccretable difference). The remaining amount, representing the excess of the loan's cash flows expected to be collected over the amount paid, is accreted into interest income over the remaining life of the loan or pool (accretable yield).

Accounting guidance requires that the purchaser continue to estimate cash flows expected to be collected over the life of the loan or pool. It then evaluates at the balance sheet date whether the present value of its loans, determined using the effective interest rate, has decreased and if so, recognizes a loss. For loans or pools that are not accounted for as debt securities, the present value of any subsequent significant increase in the loan's or pool's actual cash flows or cash flows expected to be collected is used first to reverse any existing valuation allowance for that loan or pool. For any remaining increases in cash flows expected to be collected, or for loans or pools accounted for as debt securities, a purchaser adjusts the amount of accretable yield recognized on a prospective basis over the loan's or pool's remaining life.

Valuation allowances for all purchased impaired loans reflect only those losses incurred after acquisition, that is, the present value of cash flows expected at acquisition that are not expected to be collected. Valuation allowances are established only subsequent to acquisition of the loans.

In addition to the probability of default methodology, management applies an additional qualitative reserve that captures changes in loan concentrations, weather, local economy, and other events that impact the loan portfolio.

- 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 fair value.
- 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 Gains (Losses) from Other Property Owned, Net in the Consolidated 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. Gains and losses on dispositions are reflected in current earnings. Maintenance and repairs are charged to expense and improvements 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 write-down of property held for sale is recorded as a loss in the period identified.

- F. **Investments:** The Association may hold investments 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 Association 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 Consolidated Balance Sheets as securities on the trade date.

Securities for which the Association 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.

Impairment

The Association 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

(OTTI). 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 Association 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 Association 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 Association will record additional 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 Investments in Other Farm Credit Institutions are generally recorded as patronage income and included in Noninterest Income.

- G. **Voluntary Advance Conditional Payments:** The Association is authorized under the Farm Credit Act to accept advance payments from borrowers. To the extent the borrower's access to such advance payments is restricted, the advanced conditional payments are netted against the borrower's related loan balance. Amounts in excess of the related loan balance and amounts to which the borrower has unrestricted access are presented as a liability in the accompanying Consolidated Balance Sheets. Advanced conditional payments are not insured. Interest is generally paid by the Association on such accounts.

- H. **Employee Benefit Plans:** The Association participates in District and multi-District sponsored benefit plans. These plans may include defined benefit final average pay retirement, defined benefit cash balance retirement, defined benefit other postretirement benefits, and defined contribution plans.

Defined Contribution Plans

Substantially all employees are eligible to participate in the defined contribution Farm Credit Benefit Alliance (FCBA) 401(k) Plan, subsequently referred to as the 401(k) 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. Company contributions to the 401(k) Plan are expensed as funded.

Additional information may be found in Note 9.

Multi-Employer Defined Benefit Plans

Substantially all employees hired before January 1, 2009 may participate in the Independent Associations Retirement Plan (Plan), which is a defined benefit plan and considered multi-employer under FASB accounting guidance. The Plan is noncontributory and includes eligible Association and District employees. The "Projected Unit Credit" actuarial method is used for financial reporting purposes.

In addition to pension benefits, the Association provides certain health care and life insurance benefits for retired employees (other postretirement benefits) through a multi-District sponsored retiree healthcare plan. Substantially all employees are eligible for those benefits when they reach early retirement age while working for the Association. 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.

Since the foregoing plans are multiemployer, the Association does not apply the provisions of 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 and in the Notes to the Annual Information Statement of the Farm Credit System.

- I. **Income Taxes:** The Association evaluates tax positions taken in previous and current years according to FASB guidance. A tax position can result in a permanent reduction of income taxes payable, a deferral of income taxes otherwise currently payable to future years, or a change in the expected realizability of deferred tax assets. The term tax position also encompasses, but is not limited to, an entity's status, including its status as a pass-through entity or tax-exempt entity.

The Association is generally subject to Federal and certain other income taxes. As previously described, the ACA holding company has two wholly-owned subsidiaries, a PCA and a FLCA. The FLCA subsidiary is exempt from federal and state income taxes as provided in the Farm Credit Act. The ACA holding company and the PCA subsidiary are subject to federal, state and certain other income taxes.

The Association is eligible to operate as a cooperative that qualifies for tax treatment under Subchapter T of the Internal Revenue Code. Accordingly, under specified conditions, the Association can exclude from taxable income amounts distributed as qualified patronage refunds in the form of cash, stock or allocated surplus. Provisions for income taxes are made only on those taxable earnings that will not be distributed as qualified patronage refunds. The Association distributes patronage on the basis of book income.

The Association accounts for income taxes under the asset and liability method, recognizing deferred tax assets and liabilities for the expected future tax consequences of the

temporary differences between the carrying amounts and tax bases of assets and liabilities. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be realized or settled.

The Association records a valuation allowance at the balance sheet dates against that portion of the Association's deferred tax assets that, based on management's best estimates of future events and circumstances, more likely than not (a likelihood of more than 50 percent) will not be realized. The consideration of valuation allowances involves various estimates and assumptions as to future taxable earnings, including the effects of the expected patronage program, which reduces taxable earnings.

- J. **Due from AgFirst Farm Credit Bank:** The Association records patronage refunds from the Bank and certain District Associations on an accrual basis. Patronage refunds due from the Bank for the years ended December 31, 2018, 2017 and 2016 of \$6,634, \$7,140, and \$5,763 respectively, and are reflected in Accounts Receivable on the Consolidated Balance Sheets.
- K. **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 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 3 inputs to the valuation methodology are unobservable and supported by little or no market activity. Valuation is determined using pricing models, discounted cash flow methodologies, or similar techniques, and could include significant management judgment or estimation. Level 3 assets and liabilities also could include instruments whose price has been adjusted based on dealer quoted pricing that is different than a third-party valuation or internal model pricing.

The Association may use the Bank, 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.

Additional information may be found in Note 8.

- L. **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.

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.

- M. **Revenue Recognition:** The Association generates income from multiple sources.

Financial Instruments

The largest source of revenue for the Association is Interest Income. Interest income is recognized on an accrual basis driven by nondiscretionary formulas based on written contracts, such as 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. Other types of noninterest revenues, such as service charges, professional services and broker fees, are accrued and recognized into income as services are provided and the amount of fees earned is reasonably determinable.

Contracts with Customers

In May 2014, the FASB issued ASU 2014-09 Revenue from Contracts with Customers (Topic 606). This guidance, which became effective January 1, 2018, changed the recognition of revenue from contracts with customers. The core principle of the guidance is that an entity should recognize revenue to reflect the transfer of goods and services to customers in an amount equal to the consideration the entity receives or expects to receive. The guidance also included expanded disclosure requirements that result in an entity providing users of financial statements with comprehensive information about the nature, amount, timing, and uncertainty of revenue and cash flows arising from the entity's contracts with customers. Based on input received from stakeholders, the FASB issued several additional Updates that generally provided clarifying guidance where there was the potential for diversity in practice, or address the cost and complexity of applying Topic 606.

The Association maintains contracts with customers to provide support services in various areas such as accounting, lending transactions, consulting, insurance, and information

technology. The Association does not generally incur costs to obtain contracts. As most of the contracts are to provide access to expertise or system capacity that the Association maintains, there are no material incremental costs to fulfill these contracts that should be capitalized.

Transition Information

- The Association identified ancillary revenues affected by this Update and adopted the guidance on January 1, 2018.
- The amendments were applied using the modified retrospective approach.
- The Association elected to only apply the guidance to contracts that were not completed at the date of initial application.
- Subtopics 610-20 on gains and losses from the derecognition of nonfinancial assets, and 340-40 on other assets and deferred costs-contracts with customers were adopted using the same transition options.
- Adoption did not have an impact on the Association's financial condition or results of operations.

Gains and Losses from Nonfinancial Assets

Any gains or losses on sales of Premises and Equipment are included as part of Noninterest Income and any gains or losses on OPO are included as part of Noninterest Expense. These gains and losses are recognized, and the nonfinancial asset is derecognized, when the Association has entered into a valid contract with a noncustomer and transferred control of the asset. If the criteria to meet the definition of a contract have not been met, the Association 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.

- N. **Accounting Standards Updates (ASUs):** In August 2018, the FASB issued ASU 2018-15 Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract. The amendments align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by the amendments in this Update. The guidance is effective for public business entities for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted, including adoption in any interim period, for all entities. The amendments should be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption.

In August 2018, the FASB issued ASU 2018-13 Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement. The amendments are part of the FASB's disclosure framework project. The project's objective and primary focus are to improve the effectiveness of disclosures in the notes to financial statements by

facilitating clear communication of the information required by GAAP that is most important to users of each entity's financial statements. The amendments remove, modify or add certain disclosures contained in the financial statement footnotes related to fair value. Additionally, the guidance is intended to promote the appropriate exercise of discretion by entities when considering fair value measurement disclosures and to clarify that materiality is an appropriate consideration of entities and their auditors when evaluating disclosure requirements. The amendments are effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Certain amendments should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. Entities may early adopt the provisions in whole upon issuance or may early adopt any removed or modified disclosures upon issuance and delay adoption of the additional disclosures until their effective date. The Association has adopted the removed disclosures effective with the 2018 Annual Report.

In July 2018, the FASB issued ASU 2018-09 Codification Improvements. The amendments affect a wide variety of Topics in the Codification. They apply to all reporting entities within the scope of the affected accounting guidance. The Board has an ongoing project on its agenda about improvements to clarify the Codification or to correct unintended application of guidance. Those items generally are not expected to have a significant effect on current accounting practice. The transition and effective date guidance is based on the facts and circumstances of each amendment.

In February 2018, the FASB issued ASU 2018-02 Income Statement—Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income. The guidance allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act. The amendments eliminate the stranded tax effects resulting from the Tax Cuts and Jobs Act and are intended to improve the usefulness of information reported to financial statement users. However, because the amendments only relate to the reclassification of the income tax effects of the Tax Cuts and Jobs Act, the underlying guidance that requires that the effect of a change in tax laws or rates be included in income from continuing operations is not affected. The Update also requires certain disclosures about stranded tax effects. The guidance is effective for all entities for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years.

In March 2017, the FASB issued ASU 2017-08 Receivables—Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities. The guidance relates to certain callable debt securities and shortens the amortization period for any premium to the earliest call date. The Update will be effective for interim and annual periods beginning after December 15, 2018 for public business entities.

In January 2017, the FASB issued ASU 2017-01 Business Combinations (Topic 805): Clarifying the Definition of a

Business. The amendments provide a more robust framework to use in determining when a set of assets and activities is a business. They also support more consistency in applying the guidance, reduce the costs of application, and make the definition of a business more operable. The ASU was effective January 1, 2018 for the Association. The amendments were applied prospectively. Adoption of the guidance in 2018 had no impact on the statements of financial condition and results of operations of the Association.

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 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. Financial institutions and other organizations will use forward-looking information to better 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. For public companies that are not SEC filers, it will take effect for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. Early application will be permitted for all organizations for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The Association is in the process of evaluating what effects the guidance may have on the statements of financial condition and results of operations.

In February 2016, the FASB issued ASU 2016-02 Leases (Topic 842). This Update, and subsequent clarifying guidance issued, requires organizations that lease assets to recognize on the balance sheet the assets and liabilities for the rights and obligations created by those leases. Leases will be classified as either finance leases or operating leases. This distinction will be relevant for the pattern of expense recognition in the income statement. The amendments will be effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years for public business entities. The Association will implement the guidance in first quarter 2019 using the practical expedients and does not expect a material impact to the financial statements.

In January 2016, the FASB issued ASU 2016-01 Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities. The Update, and subsequent clarifying guidance issued, was intended to improve the recognition and measurement of financial instruments. The new guidance makes targeted improvements to existing GAAP.

Transition Information

- The Association identified investment securities affected by this Update and adopted the guidance on January 1, 2018.
- The amendments related to equity securities without readily determinable fair values were applied prospectively to equity investments that existed as of the date of adoption, shown as Equity Investments in Other

Farm Credit Institutions on the Consolidated Balance Sheets.

- Application of the amendments did not require a cumulative effect adjustment.
- Adoption did not have an impact on the Association's financial condition or results of operations.
- The new standard did result in changes to certain disclosures, see Note 4 - Investments.

Note 3 — Loans and Allowance for Loan Losses

For a description of the Association's accounting for loans, including impaired loans, and the allowance for loan losses, see Note 2 subsection B above.

Credit risk arises from the potential inability of an obligor to meet its repayment obligation which exists in outstanding loans. The Association manages credit risk associated with lending activities through an assessment of the credit risk profile of an individual obligor. The Association 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 (see further discussion in Note 2 subsection B above) 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).

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

- 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 at period end follows:

	December 31,		
	2018	2017	2016
Real estate mortgage	\$ 248,651	\$ 236,119	\$ 220,738
Production and intermediate-term	216,125	211,947	222,689
Loans to cooperatives	296	–	3,278
Processing and marketing	2,568	2,778	2,003
Farm-related business	13,084	11,564	6,538
Rural residential real estate	13,910	14,963	15,123
Other (including Mission Related)	46,311	44,942	25,878
Total loans	\$ 540,945	\$ 522,313	\$ 496,247

A substantial portion of the Association’s lending activities is collateralized and the Association’s exposure to credit loss associated with lending activities is reduced accordingly.

The amount of collateral obtained, if deemed necessary upon extension of credit, is based on management’s credit evaluation of the borrower. Collateral held varies, but typically includes farmland and income-producing property, such as crops and livestock, as well as receivables. Long-term real estate loans are collateralized by the first liens on the underlying real property. Federal regulations state that long-term real estate loans are not to exceed 85 percent (97 percent if guaranteed by a government agency) of the property’s appraised value. However, a decline in a property’s market value subsequent to loan origination or advances, or other actions necessary to protect the financial interest of the Association in the collateral, may result in loan to value ratios in excess of the regulatory maximum.

The Association may purchase or sell participation interests with other parties in order to diversify risk, manage loan volume, and comply with FCA regulations. During 2017, the Association canceled its participation in the Capitalized Participation Pool program with the Bank. As a result, the Association repurchased \$9,301 of participations previously sold to AgFirst. The following tables present the principal balance of participation loans at periods ended:

December 31, 2018

	Within AgFirst District		Within Farm Credit System		Outside Farm Credit System		Total	
	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold
	Real estate mortgage	\$ 1,290	\$ –	\$ –	\$ –	\$ –	\$ 1,853	\$ 1,290
Production and intermediate-term	1,652	2,695	5	–	–	2,108	1,657	4,803
Loans to cooperatives	298	–	–	–	–	–	298	–
Processing and marketing	1,745	–	–	–	–	–	1,745	–
Farm-related business	322	2,226	–	–	–	–	322	2,226
Other (including Mission Related)	–	–	–	–	44,005	–	44,005	–
Total	\$ 5,307	\$ 4,921	\$ 5	\$ –	\$ 44,005	\$ 3,961	\$ 49,317	\$ 8,882

December 31, 2017

	Within AgFirst District		Within Farm Credit System		Outside Farm Credit System		Total	
	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold
	Real estate mortgage	\$ –	\$ –	\$ –	\$ –	\$ –	\$ 2,073	\$ –
Production and intermediate-term	2,787	3,112	6	–	–	1,879	2,793	4,991
Processing and marketing	1,832	–	–	–	–	–	1,832	–
Farm-related business	328	2,291	–	–	–	–	328	2,291
Other (including Mission Related)	–	–	–	–	42,901	–	42,901	–
Total	\$ 4,947	\$ 5,403	\$ 6	\$ –	\$ 42,901	\$ 3,952	\$ 47,854	\$ 9,355

December 31, 2016

	Within AgFirst District		Within Farm Credit System		Outside Farm Credit System		Total	
	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold	Participations Purchased	Participations Sold
	Real estate mortgage	\$ –	\$ 7,022	\$ –	\$ –	\$ –	\$ 1,504	\$ –
Production and intermediate-term	4,959	8,924	–	–	–	729	4,959	9,653
Loans to cooperatives	1,941	–	–	–	1,341	–	3,282	–
Processing and marketing	2,010	–	–	–	–	–	2,010	–
Farm-related business	462	–	–	–	–	–	462	–
Rural residential real estate	–	204	–	–	–	–	–	204
Other (including Mission Related)	–	–	–	–	24,922	–	24,922	–
Total	\$ 9,372	\$ 16,150	\$ –	\$ –	\$ 26,263	\$ 2,233	\$ 35,635	\$ 18,383

A significant source of liquidity for the Association is the repayments of loans. The following table presents the contractual maturity distribution of loans by loan type at the latest period end:

December 31, 2018				
	Due less than 1 year	Due 1 Through 5 years	Due after 5 years	Total
Real estate mortgage	\$ 1,408	\$ 19,166	\$ 228,077	\$ 248,651
Production and intermediate-term	94,399	73,155	48,571	216,125
Loans to cooperatives	–	–	296	296
Processing and marketing	–	1,473	1,095	2,568
Farm-related business	7,976	2,940	2,168	13,084
Rural residential real estate	399	920	12,591	13,910
Other (including Mission Related)	288	3,060	42,963	46,311
Total loans	\$ 104,470	\$ 100,714	\$ 335,761	\$ 540,945
Percentage	19.31%	18.62%	62.07%	100.00%

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 write-down 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,				December 31,		
	2018	2017	2016		2018	2017	2016
Real estate mortgage:				Farm-related business:			
Acceptable	91.46%	93.54%	91.81%	Acceptable	95.34%	89.26%	82.41%
OAEM	4.34	2.93	4.37	OAEM	–	2.87	–
Substandard/doubtful/loss	4.20	3.53	3.82	Substandard/doubtful/loss	4.66	7.87	17.59
	100.00%	100.00%	100.00%		100.00%	100.00%	100.00%
Production and intermediate-term:				Rural residential real estate:			
Acceptable	86.70%	82.79%	88.73%	Acceptable	97.64%	97.28%	96.65%
OAEM	4.24	9.86	3.05	OAEM	0.55	0.44	0.19
Substandard/doubtful/loss	9.06	7.35	8.22	Substandard/doubtful/loss	1.81	2.28	3.16
	100.00%	100.00%	100.00%		100.00%	100.00%	100.00%
Loans to cooperatives:				Other (including Mission Related):			
Acceptable	100.00%	–%	100.00%	Acceptable	100.00%	100.00%	100.00%
OAEM	–	–	–	OAEM	–	–	–
Substandard/doubtful/loss	–	–	–	Substandard/doubtful/loss	–	–	–
	100.00%	–%	100.00%		100.00%	100.00%	100.00%
Processing and marketing:				Total loans:			
Acceptable	100.00%	100.00%	79.36%	Acceptable	90.57%	89.77%	90.88%
OAEM	–	–	20.64	OAEM	3.71	5.41	3.40
Substandard/doubtful/loss	–	–	–	Substandard/doubtful/loss	5.72	4.82	5.72
	100.00%	100.00%	100.00%		100.00%	100.00%	100.00%

The following tables provide an aging analysis of past due loans with related accrued interest and premiums as of periods ended:

	December 31, 2018					
	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	
Real estate mortgage	\$ 837	\$ 2,578	\$ 3,415	\$ 249,045	\$ 252,460	
Production and intermediate-term	413	1,133	1,546	218,730	220,276	
Loans to cooperatives	–	–	–	296	296	
Processing and marketing	–	–	–	2,582	2,582	
Farm-related business	328	615	943	12,246	13,189	
Rural residential real estate	36	49	85	13,874	13,959	
Other (including Mission Related)	–	–	–	46,643	46,643	
Total	\$ 1,614	\$ 4,375	\$ 5,989	\$ 543,416	\$ 549,405	

December 31, 2017

	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
Real estate mortgage	\$ 1,485	\$ 3,304	\$ 4,789	\$ 234,633	\$ 239,422
Production and intermediate-term	712	849	1,561	213,672	215,233
Processing and marketing	–	–	–	2,780	2,780
Farm-related business	–	–	–	11,615	11,615
Rural residential real estate	168	75	243	14,776	15,019
Other (including Mission Related)	366	–	366	44,893	45,259
Total	\$ 2,731	\$ 4,228	\$ 6,959	\$ 522,369	\$ 529,328

December 31, 2016

	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
Real estate mortgage	\$ 1,113	\$ 853	\$ 1,966	\$ 221,457	\$ 223,423
Production and intermediate-term	479	1,168	1,647	224,060	225,707
Loans to cooperatives	–	–	–	3,297	3,297
Processing and marketing	–	–	–	2,006	2,006
Farm-related business	44	–	44	6,516	6,560
Rural residential real estate	257	7	264	14,908	15,172
Other (including Mission Related)	103	–	103	26,004	26,107
Total	\$ 1,996	\$ 2,028	\$ 4,024	\$ 498,248	\$ 502,272

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

	December 31,		
	2018	2017	2016
Nonaccrual loans:			
Real estate mortgage	\$ 3,137	\$ 4,695	\$ 3,058
Production and intermediate-term	1,192	1,050	1,407
Farm-related business	615	914	1,154
Rural residential real estate	49	75	205
Total	\$ 4,993	\$ 6,734	\$ 5,824
Accruing restructured loans:			
Real estate mortgage	\$ 4,948	\$ 4,785	\$ 2,323
Production and intermediate-term	534	451	–
Rural residential real estate	62	74	22
Total	\$ 5,544	\$ 5,310	\$ 2,345
Accruing loans 90 days or more past due:			
Real estate mortgage	\$ 13	\$ –	\$ –
Total	\$ 13	\$ –	\$ –
Total nonperforming loans	\$ 10,550	\$ 12,044	\$ 8,169
Other property owned	356	33	569
Total nonperforming assets	\$ 10,906	\$ 12,077	\$ 8,738
Nonaccrual loans as a percentage of total loans	0.92%	1.29%	1.17%
Nonperforming assets as a percentage of total loans and other property owned	2.01%	2.31%	1.76%
Nonperforming assets as a percentage of capital	11.12%	12.64%	9.53%

The following table presents information relating to impaired loans (including accrued interest) as defined in Note 2:

	December 31,		
	2018	2017	2016
Impaired nonaccrual loans:			
Current as to principal and interest	\$ 120	\$ 1,893	\$ 2,956
Past due	4,873	4,841	2,868
Total	\$ 4,993	\$ 6,734	\$ 5,824
Impaired accrual loans:			
Restructured	\$ 5,544	\$ 5,310	\$ 2,345
90 days or more past due	13	–	–
Total	\$ 5,557	\$ 5,310	\$ 2,345
Total impaired loans	\$ 10,550	\$ 12,044	\$ 8,169
Additional commitments to lend	\$ 24	\$ 11	\$ 9

The following tables present additional impaired loan information at period end. Unpaid principal balance represents the contractual principal balance of the loan.

Impaired loans:	December 31, 2018			Year Ended December 31, 2018	
	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	\$ 11	\$ 33	\$ 13	\$ 13	\$ –
Production and intermediate-term	323	535	192	370	3
Rural residential real estate	49	85	15	56	1
Total	\$ 383	\$ 653	\$ 220	\$ 439	\$ 4
With no related allowance for credit losses:					
Real estate mortgage	\$ 8,087	\$ 8,206	\$ –	\$ 9,271	\$ 83
Production and intermediate-term	1,403	1,464	–	1,609	15
Farm-related business	615	1,639	–	705	6
Rural residential real estate	62	62	–	71	–
Total	\$ 10,167	\$ 11,371	\$ –	\$ 11,656	\$ 104
Total impaired loans:					
Real estate mortgage	\$ 8,098	\$ 8,239	\$ 13	\$ 9,284	\$ 83
Production and intermediate-term	1,726	1,999	192	1,979	18
Farm-related business	615	1,639	–	705	6
Rural residential real estate	111	147	15	127	1
Total	\$ 10,550	\$ 12,024	\$ 220	\$ 12,095	\$ 108

Impaired loans:	December 31, 2017			Year Ended December 31, 2017	
	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	\$ 580	\$ 602	\$ 36	\$ 457	\$ 12
Production and intermediate-term	767	1,011	478	605	15
Rural residential real estate	52	88	14	41	1
Total	\$ 1,399	\$ 1,701	\$ 528	\$ 1,103	\$ 28
With no related allowance for credit losses:					
Real estate mortgage	\$ 8,900	\$ 8,955	\$ –	\$ 7,017	\$ 176
Production and intermediate-term	734	780	–	579	15
Farm-related business	914	1,091	–	720	18
Rural residential real estate	97	116	–	76	2
Total	\$ 10,645	\$ 10,942	\$ –	\$ 8,392	\$ 211
Total impaired loans:					
Real estate mortgage	\$ 9,480	\$ 9,557	\$ 36	\$ 7,474	\$ 188
Production and intermediate-term	1,501	1,791	478	1,184	30
Farm-related business	914	1,091	–	720	18
Rural residential real estate	149	204	14	117	3
Total	\$ 12,044	\$ 12,643	\$ 528	\$ 9,495	\$ 239

Impaired loans:	December 31, 2016			Year Ended December 31, 2016	
	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	\$ 28	\$ 49	\$ 29	\$ 31	\$ –
Production and intermediate-term	787	806	407	878	3
Rural residential real estate	56	93	14	63	–
Total	\$ 871	\$ 948	\$ 450	\$ 972	\$ 3
With no related allowance for credit losses:					
Real estate mortgage	\$ 5,353	\$ 5,553	\$ –	\$ 5,971	\$ 21
Production and intermediate-term	620	718	–	691	2
Farm-related business	1,154	1,252	–	1,287	4
Rural residential real estate	171	214	–	191	1
Total	\$ 7,298	\$ 7,737	\$ –	\$ 8,140	\$ 28
Total impaired loans:					
Real estate mortgage	\$ 5,381	\$ 5,602	\$ 29	\$ 6,002	\$ 21
Production and intermediate-term	1,407	1,524	407	1,569	5
Farm-related business	1,154	1,252	–	1,287	4
Rural residential real estate	227	307	14	254	1
Total	\$ 8,169	\$ 8,685	\$ 450	\$ 9,112	\$ 31

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

	Real Estate Mortgage	Production and Intermediate-term	Agribusiness*	Rural Residential Real Estate	Other (including Mission Related)	Total
Activity related to the allowance for credit losses:						
Balance at December 31, 2017	\$ 2,446	\$ 3,812	\$ 145	\$ 113	\$ -	\$ 6,516
Charge-offs	(277)	(52)	(806)	(9)	-	(1,144)
Recoveries	273	67	-	40	-	380
Provision for loan losses	(1,515)	67	2,486	(56)	-	982
Balance at December 31, 2018	\$ 927	\$ 3,894	\$ 1,825	\$ 88	\$ -	\$ 6,734
Balance at December 31, 2016	\$ 2,175	\$ 3,581	\$ 90	\$ 110	\$ -	\$ 5,956
Charge-offs	(1)	(12)	-	(8)	-	(21)
Recoveries	16	55	-	8	-	79
Provision for loan losses	256	188	55	3	-	502
Balance at December 31, 2017	\$ 2,446	\$ 3,812	\$ 145	\$ 113	\$ -	\$ 6,516
Balance at December 31, 2015	\$ 2,400	\$ 3,394	\$ 76	\$ 186	\$ -	\$ 6,056
Charge-offs	(270)	(82)	-	(73)	-	(425)
Recoveries	1	62	-	25	-	88
Provision for loan losses	44	207	14	(28)	-	237
Balance at December 31, 2016	\$ 2,175	\$ 3,581	\$ 90	\$ 110	\$ -	\$ 5,956
Allowance on loans evaluated for impairment:						
Individually	\$ 13	\$ 192	\$ -	\$ 15	\$ -	\$ 220
Collectively	914	3,702	1,825	73	-	6,514
PCI**	-	-	-	-	-	-
Balance at December 31, 2018	\$ 927	\$ 3,894	\$ 1,825	\$ 88	\$ -	\$ 6,734
Individually	\$ 36	\$ 478	\$ -	\$ 14	\$ -	\$ 528
Collectively	2,410	3,334	145	99	-	5,988
PCI**	-	-	-	-	-	-
Balance at December 31, 2017	\$ 2,446	\$ 3,812	\$ 145	\$ 113	\$ -	\$ 6,516
Individually	\$ 29	\$ 407	\$ -	\$ 14	\$ -	\$ 450
Collectively	2,146	3,174	90	96	-	5,506
PCI**	-	-	-	-	-	-
Balance at December 31, 2016	\$ 2,175	\$ 3,581	\$ 90	\$ 110	\$ -	\$ 5,956
Recorded investment in loans evaluated for impairment:						
Individually	\$ 8,098	\$ 1,726	\$ 615	\$ 67	\$ -	\$ 10,506
Collectively	244,362	218,550	15,452	13,845	46,643	538,852
PCI**	-	-	-	47	-	47
Balance at December 31, 2018	\$ 252,460	\$ 220,276	\$ 16,067	\$ 13,959	\$ 46,643	\$ 549,405
Individually	\$ 9,332	\$ 1,501	\$ 914	\$ 95	\$ -	\$ 11,842
Collectively	229,942	213,732	13,481	14,865	45,259	517,279
PCI**	148	-	-	59	-	207
Balance at December 31, 2017	\$ 239,422	\$ 215,233	\$ 14,395	\$ 15,019	\$ 45,259	\$ 529,328
Individually	\$ 5,228	\$ 1,407	\$ 1,154	\$ 195	\$ -	\$ 7,984
Collectively	217,908	224,300	10,709	14,936	26,107	493,960
PCI**	287	-	-	41	-	328
Ending balance at December 31, 2016	\$ 223,423	\$ 225,707	\$ 11,863	\$ 15,172	\$ 26,107	\$ 502,272

*Includes the loan types: Loans to cooperatives, Processing and marketing, and Farm-related business.

**Purchased credit impaired (PCI) loans. This table includes PCI loans currently classified as performing and not individually evaluated for impairment.

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 the modifications that occurred during the periods presented. The tables do not include purchased credit impaired loans.

Outstanding Recorded Investment	Year Ended December 31, 2018				
	Interest Concessions	Principal Concessions	Other Concessions	Total	Charge-offs
Pre-modification:					
Real estate mortgage	\$ -	\$ 244	\$ -	\$ 244	
Production and intermediate-term	-	551	-	551	
Total	\$ -	\$ 795	\$ -	\$ 795	
Post-modification:					
Real estate mortgage	\$ -	\$ 255	\$ -	\$ 255	\$ -
Production and intermediate-term	-	555	-	555	-
Total	\$ -	\$ 810	\$ -	\$ 810	\$ -

Outstanding Recorded Investment	Year Ended December 31, 2017					Charge-offs
	Interest Concessions	Principal Concessions	Other Concessions	Total		
Pre-modification:						
Real estate mortgage	\$ -	\$ 3,377	\$ -	\$ 3,377		
Production and intermediate-term	-	530	-	530		
Total	\$ -	\$ 3,907	\$ -	\$ 3,907		
Post-modification:						
Real estate mortgage	\$ -	\$ 3,517	\$ -	\$ 3,517	\$ -	
Production and intermediate-term	-	530	-	530		
Total	\$ -	\$ 4,047	\$ -	\$ 4,047	\$ -	

Outstanding Recorded Investment	Year Ended December 31, 2016					Charge-offs
	Interest Concessions	Principal Concessions	Other Concessions	Total		
Pre-modification:						
Rural residential real estate	\$ -	\$ 8	\$ -	\$ 8		
Total	\$ -	\$ 8	\$ -	\$ 8		
Post-modification:						
Rural residential real estate	\$ -	\$ 8	\$ -	\$ 8	\$ -	
Total	\$ -	\$ 8	\$ -	\$ 8	\$ -	

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.

Defaulted troubled debt restructurings	Year Ended December 31,		
	2018	2017	2016
Production and intermediate-term	\$ -	\$ 71	\$ -
Total	\$ -	\$ 71	\$ -

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,		
	2018	2017	2016	2018	2017	2016
Real estate mortgage	\$ 6,728	\$ 6,794	\$ 3,634	\$ 1,780	\$ 2,009	\$ 1,311
Production and intermediate-term	958	481	27	424	30	27
Rural residential real estate	62	74	55	-	-	33
Total loans	\$ 7,748	\$ 7,349	\$ 3,716	\$ 2,204	\$ 2,039	\$ 1,371
Additional commitments to lend	\$ 24	\$ -	\$ -			

The following table presents information as of period end:

	December 31, 2018
Carrying amount of foreclosed residential real estate properties held as a result of obtaining physical possession	\$ -
Recorded investment of consumer mortgage loans secured by residential real estate for which formal foreclosure proceedings are in process	\$ 60

Purchased Credit Impaired (PCI) Loans

River Valley acquires loans individually and in groups or portfolios.

In connection with a 2012 business combination, River Valley purchased impaired loans that are accounted for under the Cost

Recovery Method. The carrying amounts of those loans included in the balance sheet amounts of loans receivable at December 31, were as follows.

	2018	2017	2016
Real estate mortgage	\$ -	\$ 148	\$ 287
Rural residential real estate	47	59	41
Total loans	\$ 47	\$ 207	\$ 328

There was no allowance for loan losses related to these loans at December 31, 2018, 2017, or 2016. During the years ended December 31, 2018, 2017, and 2016, net provision expense on these loans was a net provision reversal of \$42, a net provision reversal of \$19, and a net provision reversal of \$3, respectively. See above for a summary of changes in the total allowance for loan losses for the period ended December 31, 2018. There were no other loans acquired during the year ended December 31, 2018 for which it was probable at acquisition that all contractually required payments would not be collected. The total of loans acquired in the 2012 business combination for which it was probable at acquisition that all contractually required payments would not be collected were as follows:

	<u>Acquired in 2012</u>	
Real estate mortgage	\$	3,488
Production and intermediate-term		4,105
Rural residential real estate		236
Total loans	<u>\$</u>	<u>7,829</u>

The loans acquired by the Association in the business combination that were within the scope of purchased impaired loan guidance are accounted for using a cash basis method of income recognition because the Association cannot reasonably estimate cash flows expected to be collected. Substantially all of the loans acquired were real estate collateral dependent loans. As discussed previously, the real estate market is unpredictable, making the estimation of the amount and timing of a sale of loan collateral in essentially the same condition as received upon foreclosure indeterminate. As such, the Association does not have the information necessary to reasonably estimate cash flows expected to be collected to compute its yield. Management determined a nonaccrual classification would be the most appropriate and that no income would be recognized on these loans as is allowed under accounting guidance.

Note 4 — Investments

Investments in Debt Securities

The Association’s investments consisted primarily of asset-backed securities (ABSs). These ABSs were issued through the Small Business Administration and guaranteed by the full faith and credit of the United States government. They were held for managing short-term surplus funds and reducing interest rate risk. These securities met the applicable Farm Credit Administration (FCA) regulatory guidelines related to government agency guaranteed investments.

The Association held no investments at December 31, 2018 or 2017. A summary of the amortized cost and fair value of investment securities held-to-maturity follows:

	<u>December 31, 2016</u>				
	<u>Amortized Cost</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Value</u>	<u>Yield</u>
ABSs	\$ 8	\$ –	\$ –	\$ 8	1.49%

An investment is considered impaired if its fair value is less than its cost. The following tables show the fair value and gross unrealized losses for investments that were 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. There were no securities in a continuous unrealized loss position for the periods presented.

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 Association intends to sell the security or it is more likely than not that it would be required to sell the security, the impairment loss equals the full difference between amortized cost and fair value of the security. When the Association 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 (OTTI) 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 Association 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. Factors considered in determining whether an impairment is other-than-temporary include among others: (1) the length of time and the extent to which the fair value is less than cost, (2) adverse conditions specifically related to the industry, (3) geographic area and the condition of the underlying collateral, (4) payment structure of the security, (5) ratings by rating agencies, (6) the credit worthiness of bond insurers, and (7) volatility of the fair value changes.

The Association uses the present value of cash flows expected to be collected from each debt security to determine the amount of credit loss. This technique requires assumptions related to the underlying collateral, including default rates, amount and timing of prepayments, and loss severity. Assumptions can vary widely from security to security and are influenced by such factors as loan interest rate, geographical location of the borrower, borrower characteristics, and collateral type.

Significant inputs used to estimate the amount of credit loss include, but are not limited to, performance indicators of the underlying assets in the security (including default rates, delinquency rates, and percentage of nonperforming assets), loan-to-collateral value ratios, third-party guarantees, current levels of subordination, vintage, geographic concentration, and credit ratings. The Association may obtain assumptions for the default rate, prepayment rate, and loss severity rate from an independent third party, or generate the assumptions internally.

The Association has not recognized any credit losses as any impairments were deemed temporary and resulted from non-credit related factors. The Association has the ability and intent to hold these temporarily impaired 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, especially after considering credit enhancements.

Equity Investments in Other Farm Credit 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. 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.

The Association is required to maintain ownership in the Bank in the form of Class B or Class C stock as determined by the Bank. The Bank may require additional capital contributions to maintain its capital requirements. The Association owns 2.10 percent of the issued stock of the Bank as of December 31, 2018 net of any reciprocal investment. As of that date, the Bank's assets totaled \$33.1 billion and shareholders' equity totaled \$2.2 billion. The Bank's earnings were \$306 million for 2018. The Bank's information is audited by another external auditor. In addition, the Association had an investment of \$431 related to other Farm Credit institutions at December 31, 2018.

Note 5 — Real Estate and Other Property

Premises and Equipment

Premises and equipment consists of the following:

	December 31,		
	2018	2017	2016
Land	\$ 2,124	\$ 1,972	\$ 2,114
Buildings and improvements	4,813	4,798	4,871
Furniture and equipment	1,628	1,429	1,501
	8,565	8,199	8,486
Less: accumulated depreciation	2,857	2,623	2,544
Total	\$ 5,708	\$ 5,576	\$ 5,942

Other Property Owned

Net (gains) losses on other property owned consist of the following:

	December 31,		
	2018	2017	2016
(Gains) losses on sale, net	\$ 5	\$ 66	\$ (5)
Carrying value unrealized (gains) losses	(57)	152	12
Operating (income) expense, net	35	59	64
(Gains) losses on other property owned, net	\$ (17)	\$ 277	\$ 71

Gains on sales of other property owned were deferred if the sales involved financing from the Association and did not meet the criteria for immediate recognition. There were no deferred gains at December 31, 2018, 2017, and 2016.

Note 6 — Debt

Notes Payable to AgFirst Farm Credit Bank

Under the Farm Credit Act, the Association is obligated to borrow only from the Bank, unless the Bank approves borrowing from other funding sources. The borrowing relationship is established with the Bank through a General Financing Agreement (GFA). The GFA utilizes the Association's credit and fiscal performance as criteria for establishing a line of credit on which the Association may draw funds. The GFA has a one year term which expires on December 31 and is renewable each year. The Association has no reason to believe the GFA will not be renewed upon expiration. The Bank, consistent with FCA regulations, has established limitations on the Association's ability to borrow

funds based on specified factors or formulas relating primarily to credit quality and financial condition. At December 31, 2018, the Association's notes payable were within the specified limitations.

The Association's indebtedness to the Bank represents borrowings by the Association to fund its earning assets. This indebtedness is collateralized by a pledge of substantially all of the Association's assets and the terms of the revolving lines of credit are governed by the GFA. Interest rates on both variable and fixed rate advances are generally established loan-by-loan based on the Bank's marginal cost of funds, capital position, operating costs and return objectives. In the event of prepayment of any portion of a fixed rate advance, the Association may incur a prepayment penalty in accordance with the terms of the GFA and which will be included in interest expense. The interest rate is periodically adjusted by the Bank based upon agreement between the Bank and the Association.

The weighted average interest rates on the variable rate advances were 3.41 percent for LIBOR-based loans and 3.53 percent for Prime-based loans, and the weighted average remaining maturities were 2.3 years and 1.3 years, respectively, at December 31, 2018. The weighted-average interest rate on the fixed rate and adjustable rate mortgage (ARM) loans which are match funded by the Bank was 3.31 percent, and the weighted average remaining maturity was 11.2 years at December 31, 2018. The weighted-average interest rate on all interest-bearing notes payable was 5.77 percent and the weighted-average remaining maturity was 8.7 years at December 31, 2018. Variable rate and fixed rate notes payable represent approximately 9.77 percent and 90.23 percent, respectively, of total notes payable at December 31, 2018. The weighted average maturities described above are related to matched-funded loans. The direct note itself has an annual maturity as prescribed in the GFA.

Note 7 — Members' Equity

A description of the Association's capitalization requirements, protection mechanisms, regulatory capitalization requirements and restrictions, and equities are provided below:

- A. **Capital Stock and Participation Certificates:** In accordance with the Farm Credit Act and the Association's capitalization bylaws, each borrower is required to invest in Common stock for agricultural loans, or participation certificates in the case of rural home and farm-related business loans, as a condition of borrowing. The initial borrower investment, through either purchase or transfer, must be in an amount equal to the lesser of \$1 thousand or two percent of the loan amount. The Board of Directors may increase the amount of investment if necessary to meet the Association's capital needs. Loans designated for sale or sold into the Secondary Market on or after April 16, 1996 will have no voting stock or participation certificate purchase requirement if sold within 180 days following the date of designation.

The borrower acquires ownership of the capital stock or participation certificates at the time the loan is made, but usually does not make a cash investment. The aggregate par value is generally added to the principal amount of the

related loan obligation. The Association retains a first lien on the stock or participation certificates owned by borrowers. Retirement of such equities will generally be at the lower of par or book value, and repayment of a loan does not automatically result in retirement of the corresponding stock or participation certificates.

B. 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 Association has not been called upon to initiate any transfers and is not aware of any proposed action under this regulation.

There are currently no prohibitions in place that would prevent the Association from retiring stock, distributing earnings, or paying dividends per the statutory and regulatory restrictions, and the Association has no reason to believe any such restrictions may apply in the future.

Effective January 1, 2017, the regulatory capital requirements for System Banks and associations were modified. The new 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. New regulations replaced core surplus and total surplus ratios with common equity tier 1 (CET1) capital, tier 1 capital, and total capital risk-based ratios. The new regulations also include a tier 1 leverage ratio and an unallocated retained earnings (URE) and URE equivalents (UREE) leverage ratio. 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, 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 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, 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 permanent capital ratio 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 assets less regulatory deductions to tier 1 capital.
- The URE and UREE 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 assets less regulatory deductions to tier 1 capital.

The following sets forth the regulatory capital ratios which were effective January 1, 2017:

Ratio	Minimum Requirement	Capital Conservation Buffer*	Minimum Requirement with Capital Conservation Buffer	Capital Ratios as of December 31,	
				2018	2017
Risk-adjusted ratios:					
CET1 Capital	4.5%	1.25%	5.75%	16.32%	15.97%
Tier 1 Capital	6.0%	1.25%	7.25%	16.32%	15.97%
Total Capital	8.0%	1.25%	9.25%	17.86%	17.51%
Permanent Capital	7.0%	0.0%	7.0%	18.64%	19.04%
Non-risk-adjusted ratios:					
Tier 1 Leverage	4.0%	1.0%	5.0%	14.79%	14.60%
URE and UREE Leverage	1.5%	0.0%	1.5%	14.47%	14.40%

* The capital conservation buffers have a 3 year phase-in period and will become fully effective January 1, 2020. Risk-adjusted ratio minimums will increase 0.625% each year until fully phased in. There is no phase-in period for the tier 1 leverage ratio.

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.

C. Description of Equities: The Association is authorized to issue or have outstanding Class A Preferred Stock, Classes B and C Common Stock, Participation Certificates and such other classes of equity as may be provided for in

amendments to the bylaws in such amounts as may be necessary to conduct the Association’s business. All stock and participation certificates have a par or face value of five dollars (\$5.00) per share.

The Association had the following shares outstanding at December 31, 2018:

Class	Protected	Shares Outstanding	
		Number	Aggregate Par Value
B Common/Nonvoting	No	234,754	\$ 1,174
C Common/Voting	No	572,382	2,862
C Participation Certificates/Nonvoting	No	88,458	442
Total Capital Stock and Participation Certificates		895,594	\$ 4,478

At-risk common stock and participation certificates are retired at the sole discretion of the Board at book value not to exceed par or face amounts, provided the minimum capital adequacy standards established by the Board are met.

Retained Earnings

The Association maintains an unallocated retained earnings account and an allocated retained earnings account. The minimum aggregate amount of these two accounts is determined by the Board. At the end of any fiscal year, if the retained earnings accounts otherwise would be less than the minimum amount determined by the Board as necessary to maintain adequate capital reserves to meet the commitments of the Association, the Association shall apply earnings for the year to the unallocated retained earnings account in such amounts as may be determined necessary by the Board. Unallocated retained earnings are maintained for each borrower to permit liquidation on a patronage basis.

The Association maintains an allocated retained earnings account consisting of earnings held and allocated to borrowers on a patronage basis. In the event of a net loss for any fiscal year, such allocated retained earnings account will be subject to full impairment in the order specified in the bylaws beginning with the most recent allocation.

The Association has a first lien and security interest on all retained earnings account allocations owned by any borrowers, and all distributions thereof, as additional collateral for their indebtedness to the Association. When the debt of a borrower is in default or is in the process of final liquidation by payment or otherwise, the Association, upon approval of the Board, may order any and all retained earnings account allocations owned by such borrower to be applied on the indebtedness.

Allocated equities shall be retired solely at the discretion of the Board; provided, however, that minimum capital standards established by the FCA and the Board are met. Nonqualified retained surplus is considered to be permanently invested in the Association and as such, there is no plan to revolve or retire this surplus. All nonqualified distributions are tax deductible only when redeemed.

At December 31, 2018, allocated members' equity consisted of \$1,230 of qualified surplus, \$6,383 of nonqualified allocated surplus and \$36,276 of nonqualified retained surplus. The Association retired \$1,027 of

nonqualified allocated surplus and \$2,032 of qualified allocated surplus in 2018.

Patronage Distributions

Prior to the beginning of any fiscal year, the Board, by adoption of a resolution, may obligate the Association to distribute to borrowers on a patronage basis all or any portion of available net earnings for such fiscal year or for that and subsequent fiscal years. Patronage distributions are based on the proportion of the borrower's interest to the amount of interest earned by the Association on its total loans unless another proportionate patronage basis is approved by the Board.

If the Association meets its capital adequacy standards after making the patronage distributions, the patronage distributions may be in cash, authorized stock of the Association, allocations of earnings retained in an allocated members' equity account, or any one or more of such forms of distribution. Patronage distributions of the Association's earnings may be paid on either a qualified or nonqualified basis, or a combination of both, as determined by the Board. A minimum of 20 percent of the total qualified patronage distribution to any borrower for any fiscal year shall always be paid in cash. Amounts not distributed are retained as unallocated member's equity.

Dividends

The Association may declare noncumulative dividends on its capital stock and participation certificates provided the dividend rate does not exceed 8 percent of the par value of the respective capital stock and participation certificates. Such dividends may be paid on all classes of stock and participation certificates.

The rate of dividends on Classes B or C Common Stock and participation certificates shall be at the same rate per share.

Dividends may not be declared if, after recording the liability, the Association would not meet its capital adequacy standards. No dividends were declared by the Association for any of the periods included in these Consolidated Financial Statements.

Transfer

Classes B and C Common Stocks and Participation Certificates may be transferred to persons or entities eligible to purchase or hold such Stock or Participation Certificates as provided in Section 830 of the Association's bylaws.

Impairment

Any net losses recorded by the Association shall first be applied against unallocated members' equity. To the extent that such losses would exceed unallocated members' equity, such losses would be applied consistent with the Association's bylaws and distributed pro rata to each share and/or unit outstanding in the class, in the following order:

1. Classes B and C Common Stock and Participation Certificates

Liquidation

In the event of liquidation or dissolution of the Association, any assets of the Association remaining after payment or retirement of all liabilities should be distributed to the holders of the outstanding stock and participation certificates in the following order:

1. Holders of Classes B and C Common Stock and Participation Certificates
2. Holders of allocated surplus evidenced by qualified written notices of allocation, in the order of the year of issuance, until the total amount of such account has been distributed
3. Holders of nonqualified allocated surplus evidenced by written notices of allocation in the order of the year of issuance, until the total amount of such account has been distributed
4. Any remaining assets after such distribution shall be distributed to present and former Stockholders, to the extent practicable.

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.

Estimating the fair value of the Association's equity investments in the Bank and Other Farm Credit Institutions is not practicable because the stock is not traded. The net investment is a requirement of borrowing from the Bank and is carried at cost.

The classifications within the fair value hierarchy (See Note 2) are as follows:

Level 1

The Association had no Level 1 assets and liabilities measured at fair value on a recurring basis. For cash, the carrying value is primarily utilized as a reasonable estimate of fair value.

Level 2

The Association had no Level 2 assets and liabilities measured at fair value on a recurring basis.

Level 3

Because no active market exists for the Association's accruing loans, fair value is estimated by discounting the expected future cash flows using the Association's current interest rates at which similar loans currently would be made to borrowers with similar credit risk. The loan 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.

Notes payable are segregated into pricing pools according to the types and terms of the loans (or other assets) which they fund. Fair value of the notes payable is estimated by discounting the anticipated cash flows of each pricing pool using the current rate that would be charged for additional borrowings. For purposes of this estimate it is assumed the cash flow on the notes is equal to the principal payments on the Association's loan receivables. This assumption implies that earnings on the Association's interest margin are used to fund operating expenses and capital expenditures.

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 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 Association'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.

For commitments to extend credit, the estimated market value of off-balance-sheet commitments is minimal since the committed rate approximates current rates offered for commitments with similar rate and maturity characteristics; therefore, the related credit risk is not significant.

There were no Level 3 assets and liabilities measured at fair value on a recurring basis for the periods presented. The Association had no transfers of assets or liabilities into or out of Level 1 or Level 2 during the periods presented.

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, 2018				
		Total Carrying Amount	Level 1	Level 2	Level 3	Total Fair Value
Recurring Measurements						
Assets:						
Recurring Assets	\$	–	\$	–	\$	–
Liabilities:						
Recurring Liabilities	\$	–	\$	–	\$	–
Nonrecurring Measurements						
Assets:						
Impaired loans	\$	163	\$	–	\$	163
Other property owned		356		–		397
Nonrecurring Assets	\$	519	\$	–	\$	560
Other Financial Instruments						
Assets:						
Cash	\$	1,084	\$	1,084	\$	–
Loans		534,048		–		521,835
Accrued interest receivable		8,460		–		8,460
Other Financial Assets	\$	543,592	\$	1,084	\$	531,379
Liabilities:						
Notes payable to AgFirst Farm Credit Bank	\$	451,508	\$	–	\$	444,021
Accrued interest payable		1,255		–		1,255
Other Financial Liabilities	\$	452,763	\$	–	\$	445,276
		December 31, 2017				
		Total Carrying Amount	Level 1	Level 2	Level 3	Total Fair Value
Recurring Measurements						
Assets:						
Recurring Assets	\$	–	\$	–	\$	–
Liabilities:						
Recurring Liabilities	\$	–	\$	–	\$	–
Nonrecurring Measurements						
Assets:						
Impaired loans	\$	871	\$	–	\$	871
Other property owned		33		–		37
Nonrecurring Assets	\$	904	\$	–	\$	908
Other Financial Instruments						
Assets:						
Cash	\$	644	\$	644	\$	–
Loans		515,636		–		505,975
Accrued interest receivable		7,015		–		7,015
Other Financial Assets	\$	523,295	\$	644	\$	513,634
Liabilities:						
Notes payable to AgFirst Farm Credit Bank	\$	428,422	\$	–	\$	422,323
Accrued interest payable		1,019		–		1,019
Other Financial Liabilities	\$	429,441	\$	–	\$	423,342

		December 31, 2016				
		Total Carrying Amount	Level 1	Level 2	Level 3	Total Fair Value
Recurring Measurements						
Assets:						
Recurring Assets	\$	–	\$	–	\$	–
Liabilities:						
Recurring Liabilities	\$	–	\$	–	\$	–
Nonrecurring Measurements						
Assets:						
Impaired loans	\$	421	\$	–	\$	421
Other property owned		569		–		639
Nonrecurring Assets	\$	990	\$	–	\$	1,060
Other Financial Instruments						
Assets:						
Cash	\$	675	\$	675	\$	–
Investments in debt securities, held-to-maturity		8		–		8
Loans		490,513		–		482,373
Accrued interest receivable		6,025		6,025		–
Other Financial Assets	\$	497,221	\$	675	\$	482,381
Liabilities:						
Notes payable to AgFirst Farm Credit Bank	\$	411,707	\$	–	\$	404,539
Accrued interest payable		836		–		836
Other Financial Liabilities	\$	412,543	\$	–	\$	404,539

SENSITIVITY TO CHANGES IN SIGNIFICANT UNOBSERVABLE INPUTS

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 Association's valuation policies and procedures. The Bank performs the majority of the Association's valuations, and its valuation processes are calibrated annually by an independent consultant. The fair value measurements are analyzed on a quarterly basis. For other valuations, documentation is obtained for third party information, such as pricing, and periodically evaluated alongside internal information and pricing that is available.

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

	Fair Value	Valuation Technique(s)	Unobservable Input	Range
Impaired loans and other property owned	\$ 560	Appraisal	Income and expense	*
			Comparable sales	*
			Replacement costs	*
			Comparability adjustments	*
			Collateral discounts	*

* Ranges for this type of input are not useful because each collateral property is unique.

Information about Other Financial Instrument Fair Value Measurements

	Valuation Technique(s)	Input
Cash	Carrying Value	Par/Principal and appropriate interest yield
Loans	Discounted cash flow	Prepayment forecasts
		Probability of default
		Loss severity
Notes payable to AgFirst Farm Credit Bank	Discounted cash flow	Prepayment forecasts
		Probability of default
		Loss severity

Note 9 — Employee Benefit Plans

The Association participates in three District sponsored benefit plans. These plans include a multi-employer defined benefit pension plan, the Independent Associations Retirement Plan, which is a final average pay plan (IAR Plan). In addition, the Association participates in a multi-employer defined benefit other postretirement benefits plan (OPEB Plan), the Farm Credit Benefits Alliance Retiree and Disabled Medical and Dental Plan, and a defined contribution 401(k) plan. The risks of participating in these multi-employer plans are different from single-employer plans in the following aspects:

1. Assets contributed to multi-employer 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 Association chooses to stop participating in some of its multi-employer plans, the Association 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. As such, the following information is neither available for nor applicable to the plans:

1. The Employee 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 IAR Plan covers employees hired prior to January 1, 2009 and includes other District employees that are not employees of the Association. It is accounted for as a multiemployer plan. The related net benefit plan obligations are not included in the Association's Balance Sheets but are included in the Combined Balance Sheets for the AgFirst District. IAR Plan

expenses included in employee benefit costs on the Association's Statements of Income were \$1,811 for 2018, \$1,333 for 2017, and \$1,252 for 2016. At December 31, 2018, 2017, and 2016, the total liability balance for the IAR Plan presented in the District Combined Balance Sheets is \$8,626, \$15,078, and \$11,528, respectively. The IAR Plan is 88.42 percent, 81.82 percent, and 83.70 percent funded to the projected benefit obligation as of December 31, 2018, 2017, and 2016, respectively.

In addition to providing pension benefits, the Association provides certain medical and dental benefits for eligible retired employees through the OPEB Plan. Substantially all of the Association employees may become eligible for the benefits if they reach early retirement age while working for the Association. 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. Employees who retire subsequent to December 1, 2007 are no longer provided retiree life insurance benefits. The OPEB Plan includes other Farm Credit System employees that are not employees of the Association or District and is accounted for as a multiemployer plan. The related net benefit plan obligations are not included in the Association'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 Association's Statements of Income were \$127 for 2018, \$117 for 2017, and \$414 for 2016. At December 31, 2018, the total AgFirst District liability balance for the OPEB Plan presented in the Farm Credit System Combined Statement of Condition is \$181,820.

During 2017, the method of recording expenses at participating District entities for the IAR and OPEB Plans was modified. Prior to 2017, expense was recorded based on allocations of actuarially-determined costs and any differences between recorded expense and actual contributions were recorded in Other Assets or Other Liabilities on the Consolidated Balance Sheets. For 2017 and future years, participating entities will record employee benefit costs based on the actual contributions to the Plans. This change caused the Association to modify its accounting estimates recorded in Other Assets and Other Liabilities since the assets and liabilities do not impact future contributions to the Plans. The

change in estimate resulted in the reduction of Other Assets by \$2,194 and the reduction of Other Liabilities by \$2,481 on the Association's Balance Sheets, and a total reduction of noninterest expenses on the Association's Statements of Income of \$287 during 2017.

The Association also participates in a defined contribution Farm Credit Benefits Alliance (FCBA) 401(k) Plan (401(k) Plan), which qualifies as a 401(k) plan as defined by the Internal Revenue Code. The 401(k) Plan requires the Association to match 100 percent of employee optional contributions up to a maximum employee contribution of 6 percent of total compensation. Employee deferrals are not to exceed the maximum deferral as adjusted by the Internal Revenue Service. The 401(k) Plan costs are expensed as funded. Employer contributions to this plan included in salaries and employee benefit costs were \$337, \$282, and \$286 for the years ended December 31, 2018, 2017, and 2016, respectively. Beginning in 2015, contributions include an additional 3.00 percent of eligible compensation for employees hired after December 31, 2008.

Additional information for the above 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 Association enters into loan transactions with officers and directors of the Association, their immediate families and other organizations with which such persons may be associated. Such loans are subject to special approval requirements contained in the FCA regulations and are made on the same terms, including interest rates, amortization schedule, and collateral, as those prevailing at the time for comparable transactions with unaffiliated borrowers.

Total loans to such persons at December 31, 2018 amounted to \$20,242. During 2018, \$19,021 of new loans were made and repayments totaled \$24,572. In the opinion of management, none of these loans outstanding at December 31, 2018 involved more than a normal risk of collectibility.

Note 11 — Commitments and Contingencies

From time to time, legal actions are pending against the Association in which claims for money damages are asserted. On at least a quarterly basis, the Association 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, after consultation with legal counsel, is of the opinion that the ultimate liability, if any, from these actions, would not be material in relation to the financial position of the Association. Because it is not probable that the Association 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 Association may participate in financial instruments with off-balance-sheet risk to satisfy the financing needs of its borrowers. These financial instruments may include commitments to extend credit or letters of credit.

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 credit-related financial instruments have off-balance-sheet credit risk because their amounts are not reflected on the Consolidated Balance Sheets until funded or drawn upon. The credit risk associated with issuing commitments and letters of credit is substantially the same as that involved in extending loans to borrowers and management applies the same credit policies to these commitments. 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 collateral or other security 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 December 31, 2018, \$103,913 of commitments to extend credit and no commercial letters of credit were outstanding with no related reserve for unfunded commitments included in Other Liabilities in the Consolidated Balance Sheets.

The Association 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 December 31, 2018, standby letters of credit outstanding totaled \$21 with expiration dates ranging from February 3, 2019 to November 9, 2019. The maximum potential amount of future payments that may be required under these guarantees was \$21.

Note 12 — Income Taxes

The provision (benefit) for income taxes follows:

	Year Ended December 31,		
	2018	2017	2016
Current:			
Federal	\$ 56	\$ 131	\$ —
Deferred:	—	—	—
Total provision (benefit) for income taxes	\$ 56	\$ 131	\$ —

The provision (benefit) for income tax differs from the amount of income tax determined by applying the applicable U.S. statutory federal income tax rate to pretax income as follows:

	December 31,		
	2018	2017	2016
Federal tax at statutory rate	\$ 2,248	\$ 3,999	\$ 2,745
Patronage distributions	(711)	(1,722)	(1,017)
Tax-exempt FLCA earnings	(1,533)	(2,102)	(1,809)
Change in deferred tax asset valuation allowance	13	(630)	216
Other	39	586	(135)
Provision (benefit) for income taxes	\$ 56	\$ 131	\$ —

In late December 2018, federal tax legislation was enacted which, among other things, lowered the federal corporate tax rate from 35% to 21% beginning on January 1, 2018. The change to the lower corporate tax rate led to an insignificant remeasurement of the deferred tax liabilities and deferred tax assets in 2018, the period of enactment. Deferred tax assets and liabilities are comprised of the following at:

	December 31,		
	2018	2017	2016
Deferred income tax assets:			
Allowance for loan losses	\$ 741	\$ 810	\$ 1,274
Nonaccrual Interest	151	76	125
Annual leave	63	62	119
Other postretirement benefits	-	-	645
Other Property Owned write-downs	-	-	10
Loss Carryforward	-	-	4
Gross deferred tax assets	955	948	2,177
Less: valuation allowance	(899)	(886)	(1,516)
Gross deferred tax assets, net of valuation allowance	56	62	661
Deferred income tax liabilities:			
Pensions and other postretirement benefits	-	-	(543)
FAS 91	-	-	(1)
Depreciation	(56)	(62)	(117)
Gross deferred tax liability	-	-	(661)
Net deferred tax asset (liability)	\$ -	\$ -	\$ -

At December 31, 2018, deferred income taxes have not been provided by the Association on approximately \$5.3 million of its investment in the Bank. Management expects that these earnings will not be converted to cash.

The Association recorded a valuation allowance of \$899, \$886 and \$1,516 as of December 31, 2018, 2017 and 2016, respectively. The Association will continue to evaluate the realizability of these deferred tax assets and adjust the valuation allowance accordingly.

There were no uncertain tax positions identified related to the current year and no unrecognized tax benefits at December 31, 2018 for which liabilities have been established. The Association recognizes interest and penalties, if any, related to unrecognized tax benefits as a component of income tax expense.

The tax years that remain open for federal and major state income tax jurisdictions are 2015 and forward.

Note 13 — Additional Financial Information

Quarterly Financial Information (Unaudited)

	2018				
	First	Second	Third	Fourth	Total
Net interest income	\$ 3,480	\$ 3,433	\$ 3,539	\$ 3,648	\$ 14,100
Provision for (reversal of allowance for) loan losses	211	281	246	244	982
Noninterest income (expense), net	(784)	(1,531)	(1,444)	1,290	(2,469)
Net income	\$ 2,485	\$ 1,621	\$ 1,849	\$ 4,694	\$ 10,649

	2017				
	First	Second	Third	Fourth	Total
Net interest income	\$ 3,339	\$ 3,402	\$ 3,502	\$ 3,488	\$ 13,731
Provision for (reversal of allowance for) loan losses	(18)	(15)	200	335	502
Noninterest income (expense), net	(1,390)	(1,551)	(1,408)	2,416	(1,933)
Net income	\$ 1,967	\$ 1,866	\$ 1,894	\$ 5,569	\$ 11,296

	2016				
	First	Second	Third	Fourth	Total
Net interest income	\$ 3,201	\$ 3,167	\$ 3,220	\$ 3,331	\$ 12,919
Provision for (reversal of allowance for) loan losses	283	(25)	94	(115)	237
Noninterest income (expense), net	(1,837)	(1,613)	(1,658)	269	(4,839)
Net income	\$ 1,081	\$ 1,579	\$ 1,468	\$ 3,715	\$ 7,843

Note 14 — Subsequent Events

The Association evaluated subsequent events and determined that there were none requiring disclosure through March 13, 2019, which was the date the financial statements were issued.