GROWING THE COOPERATIVE

TOGETHER

AgChoice Farm Credit

2018 ANNUAL REPORT

GROWING OUR COOPERATIVE TOGETHER THROUGH GOOD AND CHALLENGING TIMES

We're pleased to present this 2018 annual report as a reflection of how we served you, our customer-owners, across the AgChoice Farm Credit territory. Owned by you, we take special pride in growing the cooperative together and generating strong financial results that help us fulfill our commitment to agriculture and rural communities.

COOPERATIVE FINANCIAL STRENGTH

Your cooperative delivered an excellent scorecard despite the depressed agricultural commodity cycles that continued to affect many of our customer-owners in 2018. Our growth allows us to provide future financing and services to you and work with you through fluctuating industry cycles.

The following are a few 2018 financial highlights.

- Grew gross accruing loan volume by 5.9%, with local branch volume, excluding national capital markets loans, growing 6.8%.
- Expanded accounting, consulting and crop insurance services customer numbers while increasing revenue for those services by 17%.
- Earned net income of more than $52 million.
- Sustained strong capital position with total capital ratio at 18.99%.
- Maintained excellent credit quality with acceptably classified loans ending at 95.19%.
- Paid a record $26.25 million cash patronage distribution to customer-owners, including $5 million in special patronage, the highest in Association history.

COMMITTED DURING CHALLENGING TIMES

To meet our mission of serving agriculture and rural communities during good and challenging times, we offered many special programs and services to customer-owners this year.

- **Special patronage distribution.** For the first time in Association history, your Board of Directors, customer-owners like you, approved a one-time special patronage distribution of $5 million in September. Customer-owners shared in the Association's profits twice during this difficult economic cycle.
- **Reduced loan fees.** In the fourth quarter, the Association launched "Harvest Membership's Rewards," a program offering reduced loan fees, up to $1,000, to existing and new customers.
- **Educational programs.** AgChoice offered several webinars and local programs to help customer-owners and others in the industry better understand the existing market challenges and improve their business skills to manage through the downturns. New risk management tools, such as Dairy Revenue Protection and new tax law training, were educational programs we offered at no cost for both customers and non-customers.
- **Benchmark programs.** Customers can participate in the Dairy Success & Profitability Review, a financial industry benchmark, at no cost in 2019 and at a reduced fee for non-customers. The program is one of several business management services provided by AgChoice's consultants and industry experts.
- **Loan restructures.** For customer-owners experiencing financial distress, we encourage them to visit with their loan officers early and often. Interest-only or deferred payments and other options allow us to work with customer-owners through many stressful situations.
- **Resources.** We believe it's important for AgChoice staff to understand the resources available to farmers. Our employees help connect our customer-owners with scholarship opportunities, industry grants, financial and mental health resources.

BETTER TOGETHER

As you plan for your business or property to prosper and possibly be "in the family" for many generations, we strive to help you achieve those dreams by focusing on the long-term success of the Association. AgChoice's viability depends on your enduring success and growth. It's the cornerstone of the cooperative model. Together we will build a better future.

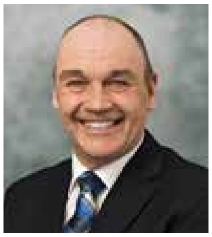
Thank you for trusting AgChoice for your financial needs. We look forward to being even better together in 2019!

Darrell L. Curtis

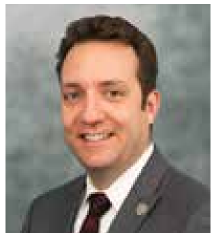
Darrell L. Curtis | President and CEO

2018 BOARD OF DIRECTORS

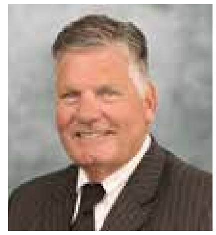
SHAWN D. WOLFINGER
Chairman



RICHARD A. ALLEN
Vice Chairman



SAMUEL BOWERCRAFT



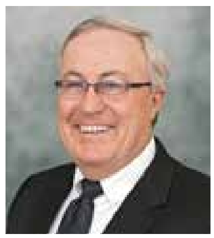
DONALD G. COTNER

KEVIN D. GRIM

WILLIAM K. JACKSON

RICHARD D. SHUMAN

LARRY A. SEIBERT



DENNIS B. SPANGLER

CHARLES F. ULMER

CHRISTINE WADDELL

2018 SENIOR LEADERSHIP TEAM

DARRELL CURTIS
President and CEO

RYAN DAVIS
Director of Credit Administration

TERRY DAVIS
Chief Financial Officer

GARY HECKMAN
Chief Business Services Officer

BRINA KEIM
Director of Human Resources

MARK KERSTETTER
Chief Operating Officer

GINA MOSHIER
Chief Administrative Officer

CRYSTAL STANDISH
Chief Sales and Marketing Officer

MICHAEL SCHREY
Chief Lending Officer

SUE THRIFT
Corporate Secretary

JOHN UTHMAN
Chief Internal Auditor

GROWING OUR COMMUNITIES

Our Shared Purpose Statement is *Inspiring Growth in our Families, Businesses and Rural Communities.* We live out that statement by donating to charitable organizations across Pennsylvania and volunteering to serve in our local communities.

GROWING OUR SERVICES

At AgChoice, we have a number of resources and programs to help you succeed. Contact your loan officer today to discuss how we can help you achieve your goals.

LOAN PRODUCTS

- Long-term Loans: real estate purchases and improvements
- Operating Loans: fertilizer and seed purchases, labor costs and animal purchases
- Equipment Loans: new or used—financing for the equipment you need
- Building and Fencing Loans: make your property perfect
- Refinancing: maximize your cash flow
- Lot Loans: start with the property, then build your dream home
- Home Loans: rural/country home properties

VALUE-ADDED SERVICES

- Business Management Services: consulting service for leadership and management development
- Accounting, Records, Payroll and Tax Services: better financial records = better decisions
- Transition Planning: ensure a smooth transition
- Crop Insurance: protect your investment
- Appraisals: equipment, farm or building valuation
- Credit Life Insurance: insure your loan
- Lease or Loan: we offer both

START-UP EDUCATIONAL PROGRAMS

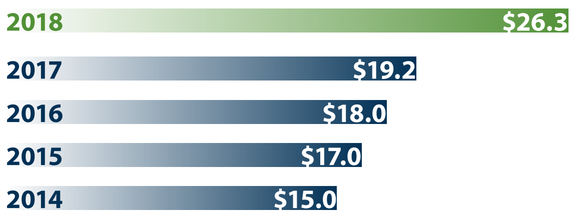
- SmartStart Programs for Young, Beginning, or Small Operators: access to credit, mentoring and research and education
- AgBiz Masters: a learning series for young and beginning farmers that teaches business and financial management skills

YOUTH PROGRAMS

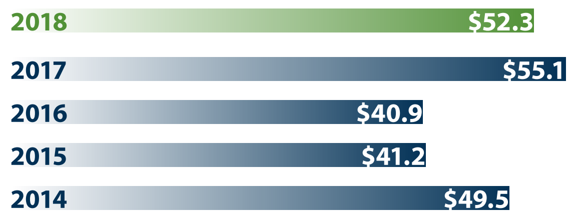
- AgChoice Scholars
- Internships

GROWING OUR BUSINESS

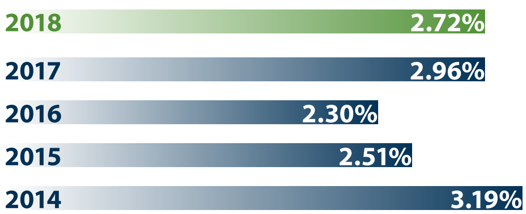
CASH PATRONAGE PAID (in millions)



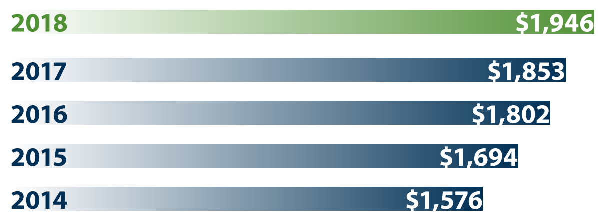
NET INCOME (in millions)

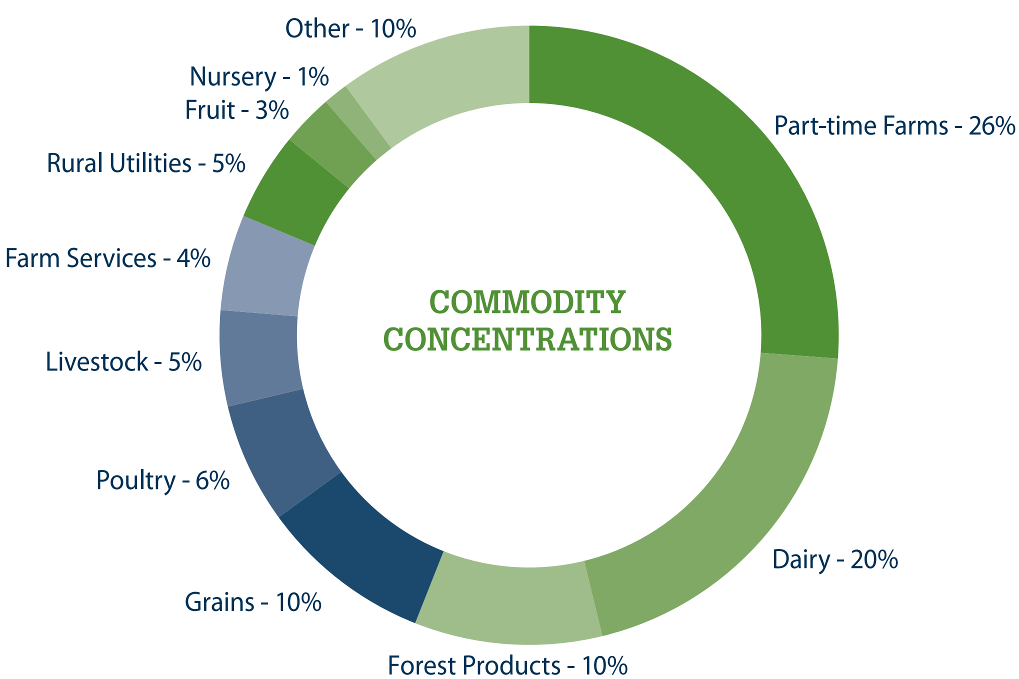


RETURN ON ASSETS



LOANS (in millions)





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Report of Management

The accompanying consolidated financial statements and related financial information appearing throughout this Annual Report have been prepared by the management of AgChoice Farm Credit, ACA (Association) in accordance with generally accepted accounting principles appropriate in the circumstances. Amounts that 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 an Independent Auditor, whose report appears elsewhere in this Annual Report. The Association is also subject to examination by the Farm Credit Administration (FCA).

The consolidated financial statements, in the opinion of management, fairly present the financial condition of the Association. The undersigned certify that we have reviewed the 2018 Annual Report of AgChoice Farm Credit, ACA, that the report has been prepared under the oversight of the Audit Committee of the Board of Directors, 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.

Shawn D. Wolfinger
Chairman of the Board

Darrell L. Curtis
Chief Executive Officer

Terry A. Davis
Chief Financial Officer

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.

Darrell L. Curtis
Chief Executive Officer

Terry A. Davis
Chief Financial Officer

March 13, 2019

Consolidated Five-Year Summary of Selected Financial Data

(dollars in thousands)	2018	2017	December 31, 2016	2015	2014
Balance Sheet Data					
Cash	**$ 83**	$ 16	$ 43	$ 50	$ 82
Investments in debt securities	**—**	2,205	2,243	2,277	2,311
Loans	**1,946,184**	1,852,751	1,802,291	1,693,914	1,576,271
Allowance for loan losses	**(14,331)**	(13,492)	(11,802)	(10,028)	(10,610)
Net loans	**1,931,853**	1,839,259	1,790,489	1,683,886	1,565,661
Equity investments in other Farm Credit institutions	**24,141**	24,009	23,295	22,554	22,586
Other property owned	**76**	26	79	978	169
Other assets	**50,584**	46,921	42,194	39,578	43,506
Total assets	**$ 2,006,737**	$1,912,436	$1,858,343	$1,749,323	$1,634,315
Notes payable to AgFirst Farm Credit Bank*	**$ 1,557,913**	$1,487,719	$1,464,915	$1,380,830	$1,283,416
Accrued interest payable and other liabilities with maturities of less than one year	**42,259**	36,917	39,410	36,107	36,358
Total liabilities	**1,600,172**	1,524,636	1,504,325	1,416,937	1,319,774
Capital stock and participation certificates	**8,223**	11,020	11,049	11,054	10,948
Retained earnings					
Allocated	**161,489**	161,489	161,489	161,489	164,844
Unallocated	**236,910**	215,361	181,537	159,895	138,810
Accumulated other comprehensive income (loss)	**(57)**	(70)	(57)	(52)	(61)
Total members' equity	**406,565**	387,800	354,018	332,386	314,541
Total liabilities and members' equity	**$ 2,006,737**	$1,912,436	$1,858,343	$1,749,323	$1,634,315
Statement of Income Data					
Net interest income	**$ 52,283**	$ 49,652	$ 46,680	$ 44,777	$ 44,079
Provision for (reversal of allowance for) loan losses	**1,179**	1,707	1,872	(65)	(1,029)
Noninterest income (expense), net	**1,176**	7,151	(3,955)	(3,664)	4,435
Net income	**$ 52,280**	$ 55,096	$ 40,853	$ 41,178	$ 49,543
Key Financial Ratios					
Rate of return on average:					
Total assets	**2.72%**	2.96%	2.30%	2.51%	3.19%
Total members' equity	**12.95%**	14.78%	11.66%	12.45%	16.03%
Net interest income as a percentage of average earning assets	**2.78%**	2.72%	2.68%	2.79%	2.90%
Net (chargeoffs) recoveries to average loans	**(0.018)%**	(0.001)%	(0.006)%	(0.032)%	(0.005)%
Total members' equity to total assets	**20.26%**	20.28%	19.05%	19.00%	19.25%
Debt to members' equity (:1)	**3.94**	3.93	4.25	4.26	4.20
Allowance for loan losses to loans	**0.74%**	0.73%	0.65%	0.59%	0.67%
Permanent capital ratio	**18.42%**	17.94%	18.02%	18.01%	18.14%
Total surplus ratio	**	**	17.17%	17.39%	17.47%
Core surplus ratio	**	**	17.17%	17.39%	17.13%
Common equity tier 1 capital ratio	**18.29%**	17.68%	**	**	**
Tier 1 capital ratio	**18.29%**	17.68%	**	**	**
Total regulatory capital ratio	**18.99%**	18.34%	**	**	**
Tier 1 leverage ratio	**19.76%**	19.05%	**	**	**
Unallocated retained earnings (URE) and URE equivalents leverage ratio	**19.87%**	19.15%	**	**	**
Net Income Distribution					
Estimated patronage refunds:					
Cash	**$ 30,700**	$ 21,250	$ 19,200	$ 18,000	$ 17,000
Nonqualified surplus	**—**	—	—	—	21,150

** 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 AgChoice Farm Credit, ACA, an Agricultural Credit Association (ACA), and its subsidiaries, AgChoice Farm Credit, FLCA, a Federal Land Credit Association (FLCA) and AgChoice Farm Credit, PCA, a Production Credit Association (PCA), (collectively called "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 Consolidated Financial Statements include the accounts of the ACA, FLCA and PCA. 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) that 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 that is owned by the members (also referred to throughout this Annual Report as stockholders, borrowers or shareholders) served. The territory of the Association extends across a diverse agricultural region of Pennsylvania and four counties in West Virginia. Refer to Note 1, *Organization and Operations*, of the Notes to the Consolidated Financial Statements for counties within the Association's territory. The Association provides credit to farmers, ranchers, rural residents and agribusinesses. Our success begins with our extensive agricultural experience and market knowledge.

The Association obtains funding from AgFirst Farm Credit Bank (AgFirst or Bank). The Association is materially affected and shareholder investment in the Association could be 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 unaudited Quarterly Reports are also available upon request, free of charge, on the Association's website, ***www.agchoice.com***, or by calling 1-800-998-5557, or writing Terry A. Davis, Chief Financial Officer, AgChoice Farm Credit, ACA, 300 Winding Creek Boulevard, Mechanicsburg, PA 17050. The Association prepares an electronic version of the Annual Report that is available on the website within 75 days after the end of the fiscal year and distributes the Annual Report to shareholders within 90 days after the end of the fiscal year. The Association prepares an electronic version of the Quarterly Report that is available on the website 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 periodically occurring adverse climatic or biological conditions that impact agricultural productivity and income;
- changes in the United States government's support of the agricultural industry and the 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.

CRITICAL ACCOUNTING POLICIES

The financial statements are reported in conformity with accounting principles generally accepted in the United States

(US). 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, contain 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 portfolio 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.

- *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, other property owned, pension and other postretirement benefit obligations 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 that could have material positive or negative effects on the Association's results of operations.

ECONOMIC CONDITIONS

The Association's loan portfolio ended 2018 in a strong condition. As of December 31, 2018, the percentage of fully acceptable loans and other assets especially mentioned decreased slightly to 97.3 percent compared to 97.5 percent for the prior year-end. The strong credit quality resulted from prudent underwriting of new loans and a portfolio with diverse commodities.

The part-time farm segment, which is heavily dependent on non-farm employment, is the largest concentration in the loan portfolio at 25.8 percent of total loans. Credit quality in this segment improved to 97.3 percent acceptable compared to 96.8 percent acceptable as of December 31, 2017. Pennsylvania's unemployment rate ended December 31, 2018 at 4.2 percent compared to December 2017's unemployment rate of 4.7 percent. Continued strong employment is expected to have a positive impact on credit quality in the part-time farm segment.

For 2018, the dairy industry had another challenging year. The gross milk price decreased by nearly $2.00 per cwt compared to 2017. These lower milk prices impacted the average producer's Earnings Before Interest, Taxes and Depreciation (EBITDA) by approximately $500 per cow. We estimate EBITDA of approximately $400 per cow for 2018. The Association outlook for 2019 predicts prices to increase about $1.00 per cwt. which, unless producers can reduce their costs of production, would have the average farm at about break even. Milk prices for the past three years are shown in the table below.

Milk Prices	2018	2017	2016
PA Gross Price	$ 16.71	$ 18.55	$ 17.25
% change from prior year	(9.9%)	7.5%	(6.6%)
Class III Price	$ 14.55	$ 16.17	$ 14.86
% change from prior year	(13.3%)	8.8%	(5.9%)

Deterioration in dairy segment credit quality from the 2018 level of 88.6 percent acceptable is expected in 2019. The dairy industry remains the second largest concentration in the loan portfolio, representing 19.8 percent of the total portfolio.

The forest products segment and related industries represents 9.7 percent of the total portfolio and continues to experience improved prices and volume demand from the historic lows during the Great Recession of 2007-2009. Hardwood lumber prices have declined somewhat from their peak in mid-2014, but profit margins remain positive. Credit quality for this segment is 98.6 percent acceptable and is expected to remain strong.

Over the last decade, the Association has increased its exposure to capital markets loans, which are large participations that are shared with other lenders to help manage the risk of a large exposure to a single borrower. As of December 31, 2018 the Association held $352.3 million in loan participations to the following industries: food processing, rural utilities, protein processing (poultry, pork and beef), dairy processing, paper and forest products, livestock, vineyards, cash grains and other commodities.

According to the United States Department of Agriculture (USDA), average US farm real estate values increased 0.2 percent as of August 2018 compared to the prior year. Farm real estate values in Pennsylvania remained constant and had an average value of $5.7 thousand per acre. Farm real estate values are expected to remain strong.

Although the Federal Funds Rate increased 100 basis points in 2018, interest rates remained near historical lows throughout 2018. Additionally, market disruptions such as the United Kingdom's prospective withdrawal from the European Union (Brexit), provided a favorable funding environment for the Association.

LOAN PORTFOLIO

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

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

Loan Type	December 31, 2018		2017		2016	
	(dollars in thousands)					
Real estate mortgage	$ 941,675	48.4%	$ 869,306	46.9%	$ 811,807	45.0%
Production and intermediate-term	628,542	32.3	624,351	33.7	647,005	35.9
Loans to cooperatives	41,041	2.1	48,678	2.6	53,928	3.0
Processing and marketing	142,471	7.3	137,310	7.4	116,574	6.5
Farm-related business	41,486	2.1	38,881	2.1	39,173	2.2
Communication	88,462	4.5	78,911	4.2	78,626	4.3
Power and water/waste disposal	20,650	1.1	23,257	1.3	22,391	1.2
Rural residential real estate	19,923	1.0	19,432	1.1	19,804	1.1
International	16,977	0.9	11,964	0.7	11,969	0.7
Lease receivables	4,957	0.3	661	–	936	0.1
Other (including Mission Related)	–	–	–	–	78	–
Total	$ 1,946,184	100.0%	$ 1,852,751	100.0%	$ 1,802,291	100.0%

While we make loans and provide financially related services (FRS) 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
Susquehanna Valley (Lewisburg)	12.8%	12.8%	12.6%
Cumberland Valley (Chambersburg)	12.0	12.3	11.6
York	9.6	9.7	9.2
Seven Mountains (Reedsville)	9.3	8.1	7.9
Martinsburg	8.6	8.3	8.0
Meadville	6.9	7.1	7.1
New Stanton	5.5	5.6	5.9
Coudersport	5.2	4.9	5.0
Butler	5.0	5.0	4.9
Endless Mountains (Towanda)	3.7	3.8	3.8
Other (Capital Markets)	21.4	22.4	24.0
	100.0%	100.0%	100.0%

Commodity and industry categories are based upon the Standard Industrial Classification (SIC) 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 part-time farms, dairy and forest products, which together constitute 55.3 percent of the entire portfolio.

Commodity Group	December 31, 2018		2017		2016	
	(dollars in thousands)					
Part-time farms	$ 502,895	25.8%	$ 486,163	26.2%	$ 483,554	26.8%
Dairy	385,539	19.8	370,365	20.0	362,981	20.1
Forest products	188,780	9.7	182,125	9.8	178,427	9.9
Grains	188,001	9.7	166,562	9.0	140,759	7.8
Poultry	117,355	6.0	116,538	6.3	109,039	6.1
Livestock	97,893	5.0	92,638	5.0	90,655	5.0
Rural utilities	96,920	5.0	85,041	4.6	94,260	5.2
Farm services	88,162	4.5	92,452	5.0	82,725	4.6
Fruit	63,251	3.3	50,580	2.7	42,895	2.4
Floriculture and nursery	20,824	1.1	21,677	1.2	24,511	1.4
Rural home	973	0.1	926	0.1	901	0.1
Other	195,591	10.0	187,684	10.1	191,584	10.6
Total	$ 1,946,184	100.0%	$ 1,852,751	100.0%	$ 1,802,291	100.0%

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 dairy producers. Although a large percentage of the loan portfolio is concentrated in this enterprise, many of these operations are diversified within their enterprises and/or with crop production that reduces overall risk exposure.

The concentration of large loans has remained consistent over the past several years. The risk in the portfolio associated with commodity concentration and large loans is reduced by the range of enterprise diversity in the Association's territory.

The 5.0 percent increase in gross loan volume for the 12 months ended December 31, 2018 is attributable to growth primarily in the Association's local service area (LSA). During 2018, the Association experienced solid growth in both long-term and short- and intermediate-term loan volume.

During 2018, the Association continued to purchase loan participations both within and outside of the System. Loan participations provide a means for the Association to spread credit concentration risk and realize non-patronage sourced interest and fee income. The Association typically holds no more than $17,000 in participation loans to a single borrower and these loans are larger than most loans in the remaining portfolio. Therefore, if one or more of these loans should deteriorate in credit quality, it can materially impact the Association.

Loan Participations	December 31, 2018	2017	2016
	(dollars in thousands)		
Participations Purchased – FCS Institutions	$ 352,288	$ 348,566	$ 377,618
Participations Purchased – Non-FCS Institutions	–	–	–
Participations Sold	(60,073)	(50,744)	(63,331)
Total	$ 292,215	$ 297,822	$ 314,287

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 year 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 $261 that were sold into the secondary market. The Association also participates in the Farmer Mac Long-Term Standby Commitment to Purchase program. Farmer Mac was established by Congress to provide liquidity to agricultural lenders. At December 31, 2018, the Association had loans amounting to $3,799 that were 100 percent guaranteed by Farmer Mac.

MISSION RELATED INVESTMENTS

During 2005, the FCA initiated an investment program to stimulate economic growth and development in rural areas. The FCA outlined a program to allow System institutions to hold such investments, subject to approval by the FCA on a case-by-case basis. The FCA approved the Rural America Bonds pilot program under the Mission Related Investments umbrella, as described below.

In October 2005, the FCA authorized the Bank and the associations to make investments in Rural America Bonds under a three-year pilot period. Rural America Bonds may include debt obligations issued by public and private enterprises, corporations, cooperatives, other financing institutions or rural lenders where the proceeds would be used to support agriculture, agribusiness, rural housing or economic development, infrastructure or community development and revitalization projects in rural areas. Examples include investments that fund value-added food and fiber processors and marketers, agribusinesses, commercial enterprises that create and maintain employment opportunities in rural areas, community services such as schools, hospitals and government facilities and other activities that sustain or revitalize rural communities and their economies. The objective of this pilot program was to help meet the growing and diverse financing needs of agricultural enterprises, agribusinesses and rural communities by providing a flexible flow of money to rural areas through bond financing. These bonds may be classified as Loans or Investments on the Consolidated Balance Sheets depending on the nature of the investment. As of December 31, 2018, December 31, 2017 and December 31, 2016, the Association had $0, $0 and $78, respectively, in Rural America Bonds that are classified as Loans on the Consolidated Balance Sheets, and $0, $2,205 and $2,243, respectively, that are classified as Investment securities.

Effective December 31, 2016, the FCA concluded each pilot program it approved as part of the Investment in Rural America program. Each institution participating in such programs may continue to hold its investment through the maturity dates for the investments, provided the institution continues to meet all approval conditions. Although the pilot programs have concluded, the FCA can consider future requests on a case-by-case basis.

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 credit staff. 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 borrower to survive unanticipated risks and
- 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. Long-term 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. Long-term 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 or up to 97 percent of the appraised value if guaranteed by a state, federal or other governmental agency. The actual loan to appraised value when loans are made is generally lower than the statutory maximum percentage. 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 that is used by all System institutions. The following 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 weaknesses.
- Substandard – Assets exhibit some serious weaknesses 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	97.31%	97.47%	97.84%
Substandard	2.69	2.53	2.16
Doubtful	–	–	–
Loss	–	–	–
Total	100.0%	100.0%	100.00%

Nonperforming Assets

The Association's loan portfolio is divided into performing and high-risk categories. A Special Assets Management department is responsible for servicing loans classified as high-risk. The high-risk assets, including accrued interest, are detailed below.

	December 31,		
High-Risk Assets	2018	2017	2016
	(dollars in thousands)		
Nonaccrual loans	$ 11,989	$ 20,158	$ 22,687
Restructured loans	79	468	1,720
Accruing loans 90 days past due	–	–	–
Total high-risk loans	12,068	20,626	24,407
Other property owned	76	26	79
Total high-risk assets	$ 12,144	$ 20,652	$ 24,486
Ratios			
Nonaccrual loans to total loans	0.62%	1.09%	1.26%
High-risk assets to total assets	0.61%	1.08%	1.32%

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 $8,169 or 40.5 percent in 2018. This decrease resulted primarily from several large paydowns made in 2018. Of the $11,989 in nonaccrual volume at December 31, 2018, $8,836 or 73.7 percent, compared to 81.1 percent and 84.5 percent 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 a 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 determined according to generally accepted accounting principles (GAAP) and was considered by Association management to be adequate to absorb probable losses existing in and inherent to its loan portfolio. The allowance for loan losses was $14,331 at December 31, 2018, compared to $13,492 and $11,802 at December 31, 2017 and December 31, 2016, respectively.

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
	(dollars in thousands)		
Balance at beginning of year	$ 13,492	$ 11,802	$ 10,028
Charge-offs:			
Real estate mortgage	–	–	–
Production and intermediate-term	(25)	(60)	(135)
Energy	(304)	–	–
Rural residential real estate	(16)	–	–
Lease receivables	(16)	–	–
Total charge-offs	(361)	(60)	(135)
Recoveries:			
Real estate mortgage	1	–	–
Production and intermediate-term	20	14	35
Lease receivables	–	29	2
Total recoveries	21	43	37
Net (charge-offs) recoveries	(340)	(17)	(98)
Provision for/(Reversal of allowance for) loan losses	1,179	1,707	1,872
Balance at end of year	$ 14,331	$ 13,492	$ 11,802
Ratio of net (charge-offs) recoveries during the period to average loans outstanding during the period	(0.018)%	(0.001)%	(0.006)%

The Association had net loan charge-offs of $340 in 2018, compared to net loan charge-offs of $17 and $98 in 2017 and 2016, respectively. 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
	(dollars in thousands)		
Real estate mortgages	$ 3,193	$ 3,298	$ 1,184
Production and intermediate-term	5,325	5,756	6,057
Agribusiness	3,680	1,888	1,996
Communication	1,257	803	1,496
Power and water/waste disposal	232	1,618	956
Rural residential real estate	92	95	68
International	276	27	34
Lease receivables	276	7	10
Other (including Mission Related)	–	–	1
Total allowance	$ 14,331	$ 13,492	$ 11,802

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	0.74%	0.73%	0.65%
Nonperforming loans	118.75%	65.41%	48.35%
Nonaccrual loans	119.53%	66.93%	52.02%

While the financial positions of a majority of our borrowers have remained favorable, allowance for loan losses as a percentage of total loans increased slightly in 2018 due to a slight deterioration in credit quality and volume growth. 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 Income

Net income for the year ended December 31, 2018 totaled $52,280, a decrease of $2,816 or 5.1 percent, compared to $55,096 for the same period in 2017. Net income for the year ended December 31, 2017 increased $14,243 or 34.9 percent, compared to $40,853 for the same period in 2016. Major components of the change in net income for the past two years are outlined in the following table.

Change in Net Income	2018-2017	2017-2016
	(dollars in thousands)	
Net income (prior year)	$ 55,096	$ 40,853
Increase (decrease) in net income due to:		
Interest income	10,221	8,523
Interest expense	(7,590)	(5,551)
Net interest income	2,631	2,972
Provision for loan losses	528	165
Noninterest income	(654)	5,978
Noninterest expense	(5,400)	5,452
Provision for income taxes	79	(324)
Total changes in income	(2,816)	14,243
Net income	$ 52,280	$ 55,096

Net Interest Income

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 loan volume, yields on assets and the cost of debt.

Net interest income was $52,283, $49,652 and $46,680 in 2018, 2017 and 2016, respectively. The Association's net interest income as a percentage of average earning assets was 2.78 percent on December 31, 2018, 2.72 percent on December 31, 2017 and 2.68 percent on December 31, 2016. The following table illustrates that in 2018, increased net interest income resulted from changes in volume and rates, offset by lower nonaccrual income.

Change in Net Interest Income

	Volume*	Rate	Nonaccrual Income	Total
	(dollars in thousands)			
12/31/18 - 12/31/17				
Interest income	$ 2,753	$ 7,877	$ (409)	$ 10,221
Interest expense	779	6,811	–	7,590
Change in net interest income	$ 1,974	$ 1,066	$ (409)	$ 2,631
12/31/17 - 12/31/16				
Interest income	$ 3,815	$ 3,892	$ 816	$ 8,523
Interest expense	1,411	4,140	–	5,551
Change in net interest income	$ 2,404	$ (248)	$ 816	$ 2,972

**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, 2018	2017	2016	Percentage Increase/(Decrease) 2018/2017	2017/2016
	(dollars in thousands)				
Loan fees	$ 1,215	$ 1,327	$ 1,205	(8.4)%	10.1%
Fees for financially related services	2,303	2,080	1,909	10.7	9.0
Patronage refund from other Farm Credit institutions	25,081	26,804	21,279	(6.4)	26.0
Gains (losses) on sales of rural home loans, net	6	23	18	(73.9)	27.8
Gains (losses) on sales of premises and equipment, net	77	170	190	(54.7)	(10.5)
Other noninterest income, Gains (losses)	1,199	131	(44)	815.3	397.7
Total noninterest income	$ 29,881	$ 30,535	$ 24,557	(2.1)%	24.3%

Loan fees decreased by $112 or 8.4 percent and fees for FRS increased by $223 or 10.7 percent for the 12 months ended December 31, 2018. The decrease in loan fees resulted primarily from lower late and participations purchased fees, while the increase in FRS fees was due to higher Business Management Services (BMS) income. During 2018, the Association received from the Bank $25.1 million in patronage, including a special distribution of $12.6 million, compared to total patronage of $26.8 million in 2017 and $21.3 million in 2016. Other noninterest income, gains (losses) increased by $1,068 during 2018.

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, 2018	2017	2016	Percentage Increase/(Decrease) 2018/2017	2017/2016
	(dollars in thousands)				
Salaries and employee benefits	$ 18,563	$ 17,469	$ 17,704	6.3%	(1.3%)
Occupancy and equipment	1,338	1,345	1,278	(0.5)	5.2
Insurance fund premiums	1,326	2,156	2,325	(38.5)	(7.3)
(Gains) losses on other property owned, net	23	20	306	15.0	(93.5)
Other operating expenses	7,282	2,142	6,959	240.0	(69.3)
Total noninterest expense	$ 28,532	$ 23,132	$ 28,584	23.3%	(19.1%)

Noninterest expense increased $5,400 or 23.3 percent for the period ended December 31, 2018, compared to the same period in 2017. Noninterest expense decreased $5,452 or 19.1 percent for the period ended December 31, 2017 compared to the same period in 2016.

Salaries and employee benefits increased by $1,094 in 2018, as compared with 2017, primarily due to the increase in number of employees and higher pension expense. Other operating expenses increased by $5,140 during 2018 because in 2017, the method of recording expenses for the Association's defined benefit pension plan and other postretirement benefit plan was modified. Refer to Note 9, *Employee Benefit Plans*, of the Notes to the Consolidated Financial Statements, for further information concerning postretirement benefit expenses.

Farm Credit System Insurance Corporation (FCSIC) premiums decreased $830 or 38.5 percent for the 12 months ended December 31, 2018, compared to the same period of 2017. The FCSIC premiums were 9 basis points on adjusted insured debt outstanding in 2018.

Income Taxes

The Association recorded a provision for income taxes of $173 for the year ended December 31, 2018, as compared to a provision of $252 for 2017 and reversal of provision of $72 for 2016. Refer to Note 2, *Summary of Significant Accounting Policies, 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 12 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	2.72%	2.96%	2.30%
Return on average members' equity	12.95%	14.78%	11.66%
Net interest income as a percentage of average earning assets	2.78%	2.72%	2.68%
Net (charge-offs) recoveries to average loans	(0.018)%	(.0001)%	(0.006)%

The 2018 return on average assets and return on average members' equity decreased, primarily due to significantly lower expenses in 2017 for the final average pay plan (FAP) and the other post employment benefits plan (OPEB Plan). These expenses were lower in 2017 due to a change in the method of recording FAP and OPEB Plan expenses.

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, manage credit risk in our entire portfolio and improve fee income from loans and FRS, 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 from 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. The Association's 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 was $1,557,913, as compared to $1,487,719 at December 31, 2017 and $1,464,915 at December 31, 2016. The increase of 4.7 percent in 2018 compared to December 31, 2017, and the increase of 1.6 percent in 2017 compared to December 31, 2016, were attributable to changes in Association loan volume. The average volume of outstanding notes payable to the Bank was $1,496,841 and $1,467,566 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 the Farmer Mac program, 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 that 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 US Treasury Rates. Fixed rate loans are priced based on the current cost of the 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, *Investment 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*, of the Notes to the Consolidated Financial Statements, 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's Board of Directors (Board) establishes, adopts and maintains a formal written capital adequacy plan to ensure that adequate capital is maintained for continued financial viability, provide for growth necessary to meet the needs of borrowers and 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 4.8 percent to $406,565 from the December 31, 2017 total of $387,800. At December 31, 2017, total members' equity increased 9.5 percent from the December 31, 2016 total of $354,018. The increase was primarily attributed to net income, offset by cash patronage paid.

Total capital stock and participation certificates were $8,223 on December 31, 2018, compared to $11,020 on December 31, 2017 and $11,049 on December 31, 2016. The 2018 decrease was attributed to a decrease in preferred A stock by $2,922, offset by an increase of $125 in all classes of stock.

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 capital ratios. The new regulations also include a tier 1 leverage ratio and an unallocated retained earnings equivalents (UREE) leverage ratio. The permanent capital ratio (PCR) remains in effect.

Risk-adjusted assets have been defined by FCA regulations as the Balance Sheet assets and off-balance-sheet commitments adjusted by various percentages, depending on the level of risk inherent in the various types of assets. The primary changes that generally have the effect of increasing risk-adjusted assets (decreasing risk-based regulatory capital ratios) were:

- inclusion of off-balance-sheet commitments less than 14 months and
- increased risk-weighting of most loans 90 days past due or in nonaccrual status.

Calculation of PCR risk-adjusted assets includes the allowance for loan losses as a deduction from risk-adjusted assets. This differs from the other risk-based capital calculations.

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 seven years, allocated equities held for a minimum of seven 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 five years, subordinated debt and limited-life preferred stock greater than five 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 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 that 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%	18.29%	17.68%
Tier 1 Capital	6.0%	1.25%	7.25%	18.29%	17.68%
Total Capital	8.0%	1.25%	9.25%	18.99%	18.34%
Permanent Capital	7.0%	0.00%	7.00%	18.42%	17.94%
Non-risk-adjusted ratios:					
Tier 1 Leverage	4.0%	1.0%	5.0%	19.76%	19.05%
URE and UREE Leverage	1.5%	0.0%	1.5%	19.87%	19.15%

** The capital conservation buffers have a three 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	7.00%	18.02%	18.01%	18.14%	17.48%	16.51%
Total Surplus	7.00%	17.17%	17.39%	17.47%	16.78%	15.75%
Core Surplus	3.50%	17.17%	17.39%	17.13%	15.84%	14.13%

The Board and management monitor these ratios regularly. Throughout 2018, management discussed with the Board hypothetical operational scenarios that could stress the Association's capital position, along with potential responses to those scenarios. In the opinion of management, the Association remains adequately capitalized. The Association's 2019 business plan anticipates only slight reductions in capital ratios over the next three years as we expect to be able to manage a moderate level of growth. There are no trends, commitments, contingencies or events that are likely to affect the Association's ability to meet regulatory minimum capital standards and capital adequacy requirements.

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

PATRONAGE PROGRAM

Prior to the beginning of any fiscal year, the Association's Board, 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 setting aside funds to increase surplus and meet minimum capital adequacy standards established by the FCA regulations, increasing surplus to meet Association capital adequacy standards to a level necessary to support competitive pricing at targeted earnings levels and maintaining reasonable reserves for the necessary purposes of the Association.

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 $30,700 in 2018, $21,250 in 2017 and $19,200 in 2016. The 2018 patronage will be paid in cash.

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

AgChoice believes that:

- the long-range strength and soundness of the Association and of the agricultural community within our LSA depends on individuals entering agriculture, including producers or harvesters of aquatic products, basic processing and marketing operations and farm-related services.
- the amount of capital needed and its cost make it exceedingly difficult for individuals to become established in agriculture or agricultural-related fields.
- sound business knowledge and management skills are critical to the success of YBS farmers and that the Association has a responsibility to help them develop in those areas.
- any assistance provided to YBS farmers should not impede our ability to serve the remainder of our membership.

AgChoice's mission is to:

- assist YBS farmers who have a high potential for success become established in farming by providing loans and FRS.
- cooperate with other lenders and alliance partners to ensure that all available resources are being used to best serve our YBS farmers.
- promote agriculture and support its growth throughout our LSA.
- encourage YBS farmers to do business with us by earning their trust and respect and providing financial incentives.

- support and encourage participation in activities that improve the management skills of our YBS farmers.
- demonstrate our passion to serve the needs of our YBS farmer market by achieving our established goals.

The following table outlines the loan volume (net of participation loans sold) and number of YBS loans in the loan portfolio for the Association.

As of December 31, 2018

	Number of Loans	% of Loans by Number	2018 Goal (% by Number)	Amount of Loans	2018 Goal (by Volume)	Difference
Young	3,044	22.3%	>20.0%	$336,725	$336,375	$350
Beginning	3,624	26.5%	>23.0%	391,821	398,475	(6,654)
Small	6,577	48.1%	>44.0%	552,051	535,095	16,956

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 has been used as a benchmark to measure penetration of the Association's marketing efforts. The census data indicated that of those farms with debt in our Association territory, 8.3 percent were young, 21.2 percent were beginning and 89.4 percent were small. Comparatively, as of December 31, 2018, the demographics of the Association's agricultural portfolio contained 13,672 loans, of which by definition 3,044 or 22.3 percent were young, 3,624 or 26.5 percent were beginning and 6,577 or 48.1 percent were small.

Slight differences between the Census and our YBS information are as follows:

- the Census shows young farmers in a group up to age 34, whereas the Association's YBS information shows young farmers up to age 35.
- the Census shows years on present farm up to nine years, whereas the Association's YBS information shows 10 years or less for a beginning farmer.
- the Census data is based on number of farms, whereas the Association's YBS information is based on number of loans.

The Association's SmartStart program encourages young and/or beginning farmers or those who are both beginning and small farmers to invest in business and financial management education to enhance their success, while lowering the Association's risk in lending to this market segment. SmartStart provides a financial incentive in the form of reduced interest rates to those borrowers who qualify under the program. Rate reductions are based on the borrower's completion of educational programs that are related to business, financial and production management. These educational opportunities are offered both in-house, in the form of events held by or sponsored by the Association, or external, such as programs provided by cooperative extension, industry organizations or local universities through their small business development programs. During 2018, SmartStart had 1,179 YBS participants. The Association closed 21 loans with SmartStart incentives in 2018, totaling $6,645. The director of AgChoice's Knowledge Center administers the SmartStart program.

The Association is pleased to be a program partner and leader for AgBiz Masters, an educational learning series for young and beginning farmers that was initiated in February 2010. AgBiz Masters is a two-year program that teaches business and financial management skills through a blended learning approach. Participants complete five online modules and attend several in-person sessions each year. The program is supported by a network of more than 25 agricultural organizations serving as marketing, resource and financial partners. AgBiz Masters currently has 187 young and beginning farmers in Pennsylvania and surrounding states participating in the program. A significant percentage of those participants are shareholders or family members of shareholders of the Association. SmartStart credits can be earned by participants of AgBiz Masters, offering additional reward and incentive to participate in the program.

In addition to AgBiz Masters, the Association offers many other targeted educational workshops to its borrowers and others in the agricultural industry, delivered through the AgChoice Knowledge Center that was established in 2013. Educational topics at 2018 events included personal finance, record-keeping, family business communication, transition planning and other topics related to business and financial management. Some of the events are hosted solely by AgChoice and others are collaborative efforts with partner agricultural organizations to build on the success of AgBiz Masters.

The Association is very active through partnerships with other lenders to help YBS farmers. It comprises programs such as those offered by Pennsylvania's First Industries Fund and Farm Service Agency (FSA), which include guaranteed and direct loans to qualifying borrowers. The Association is a "preferred lender," the highest status designated by FSA. The AgBiz Masters program offered by the Association is approved by FSA for the educational training it requires of its borrowers.

Besides SmartStart, which offers interest rate reductions, the Association provides incentives for participation in the Association's other BMS.

In 2018, the Association was also actively involved in many outside industry activities to expand its reach to YBS farmers. The Association sponsored and participated in several trade shows and educational activities for new generation market, including womens' and sustainable agriculture events. This participation and sponsorship provides opportunities for the Association to be exposed to non-traditional YBS farmers and share information about the Association's products and services. The Association also continued its support for YBS farmers at other educational activities such as the PA Dairy Summit, offering scholarships for customers in attendance.

The Association has remained supportive of youth-related organizations to help ensure a strong future for agriculture. The Association provided significant monetary and in-kind support of 4-H, FFA and other youth and young farmer organizations in 2018. Additionally, the Association offers programs such as AgChoice Scholars and direct scholarships through The Pennsylvania State University to develop future agricultural leaders.

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*, of 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	
• 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.	• 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: 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.
ASU 2016-02 – Leases (Topic 842)	
• 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.	• 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 will adopt 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 $2. In addition, a Right of Use Asset in the amount of $38 and Lease Liability in the amount of $36 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.

Description of Property

The following table sets forth certain information regarding the properties of the reporting entity, all of which are located in Pennsylvania.

Location	Description	Form of Ownership
610 Evans City Road Butler, PA 16001	Branch	Owned
109 Farm Credit Drive Chambersburg, PA 17202	Branch	Owned
1 Buffalo Street, Suite 3 Coudersport, PA 16915	Branch	Leased
2322 Curryville Road Martinsburg, PA 16662	Branch	Owned
921 S. Center Avenue Hunker, PA 15639	Branch	Owned
450 International Drive Lewisburg, PA 17837	Branch	Owned
4504 Westbranch Highway Lewisburg, PA 17837	Former Branch	Owned
11555 State Highway 98 Meadville, PA 16335	Branch	Owned
45 Sheetz Drive Reedsville, PA 17084	Branch	Owned
24668 Route 6 Towanda, PA 18848	Branch	Owned
13193 Ferguson Valley Road Yeagertown, PA 17099	Former Branch	Owned
1434 Seven Valleys Road York, PA 17408	Branch	Owned
300 Winding Creek Boulevard Mechanicsburg, PA 17050	Headquarters	Owned

Senior Officers

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

Senior Officer	Position
Darrell L. Curtis	*President and Chief Executive Officer* since January 2013, previously *Chief Financial Officer* and *Chief Operating Officer* since 2012.
Ryan S. Davis	*Vice President and Director of Credit Administration* since August 2018, previously *Assistant Credit Analysis Manager* since April 2017, *Senior Credit Analyst* since January 2017, *Credit Analyst* since July 2015 and employed by local community banks as a *Credit Analyst* since April 2009.
Terry A. Davis	*Senior Vice President, Treasurer and Chief Financial Officer* since July 2018 and previously *Controller* since 2013.
Gary S. Heckman	*Executive Vice President and Chief Business Services Officer* since January 2016, previously *Chief Business Development Officer* since 2013.
Brina M. Keim	*Senior Vice President, Assistant Corporate Secretary and Director of Human Resources* since August 2014 and previously *Human Resources and Training Manager* since 2006.
Mark F. Kerstetter	*Executive Vice President and Chief Operating Officer since July 2018,* previously *Chief Financial Officer* since August 2014, *Director of Capital Markets Lending* since August 2014, and *Capital Markets Manager* since 2011.
Gina M. Moshier	*Senior Vice President and Chief Administrative Officer since July 2018,* previously the *Director of Organizational Effectiveness* since August 2014 and *Operations/Project Manager* since 2008.
Michael S. Schrey	*Executive Vice President and Chief Credit Officer since July 2018* previously *Chief Lending Officer* since January 2016 and *Regional Manager* since 2008.
Crystal A. Standish	*Senior Vice President, Chief Sales and Marketing Officer* since July 2018, previously *Director of Sales and Marketing* since January 2014 and *Regional Sales Manager*
John D. Uthman	*Senior Vice President and Chief Internal Auditor* since 2010 and previously *Chief Reviewer* since 2006.

The total amount of compensation earned by the chief executive officer (CEO), the senior officers and other highly compensated employees 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	Changes in Pension Value		Deferred/ Perquisites *(b)*	Total
Darrell L. Curtis	2018	$ 400,015	$ 125,000	$ 79,275	*(c)*	$ 25,233	$ 629,523
Darrell L. Curtis	2017	$ 387,514	$ 118,000	$ 63,654		$ 24,436	$ 593,604
Darrell L. Curtis	2016	$ 375,015	$ 123,750	$ 234,271		$ 21,755	$ 754,791
10 *(a)*	2018	$ 1,401,203	$ 306,713	$ 67,799	*(c)*	$ 130,743	$ 1,906,458
8	2017	$ 1,299,930	$ 291,684	$ 463,107		$ 132,667	$ 2,187,388
9	2016	$ 1,215,615	$ 282,658	$ 385,033		$ 189,814	$ 2,073,120

(a) Disclosure of information on the total compensation paid during 2018 to any senior officer, or to any other individual included in the aggregate, is available to shareholders upon request.
(b) The Deferred/Perquisites amounts disclosed in the above chart include deferred compensation, automobile allowance, employer 401(k) match, non-elective 401(k) contributions, employer Health Savings Account contributions, life insurance and relocation reimbursement.
(c) The Changes in Pension Value in 2018 as reflected in the table above resulted primarily from assumption changes including an increase in the discount rate assumption, additional service time and higher compensation. See further discussion in Note 9, Employee Benefit Plans, of the Financial Statements.

The senior officers' incentive plan provides for payouts based on Association performance in the areas of credit quality, loan fees, quality loan volume growth, FRS revenues and progress on strategic imperative implementation that are established in the business plan. The incentive plan for all other non-temporary employees is based on the same goals and requires at least a satisfactory performance rating. The compensation will be paid out by March 15, 2019. 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.

Pension Benefits Table
As of December 31, 2018

Name of Individual or Number in Group	Year	Plan Name	Number of Years Credited Service	Actuarial Present Value of Accumulated Benefits	Payments During 2018
CEO:					
Darrell L. Curtis	2018	AgFirst Farm Credit Retirement Plan	32.2	$ 2,998,337	$ –
				$ 2,998,337	$ –
Senior Officers and Highly Compensated Employees:					
2 Officers, excluding the CEO	2018	AgFirst Farm Credit Retirement Plan	*29.3	$ 2,846,792	$ –
8 Officers, excluding the CEO	2018	AgFirst Farm Credit Cash Balance Plan	*11.6	–	–
				$ 2,846,792	$ –

**Represents the average years of credited service for the group*

Retirement and Deferred Compensation Plans

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

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

Employees hired on or after January 1, 2003, but prior to November 4, 2014, previously participated in the AgFirst Farm Credit Cash Balance Retirement Plan. Benefit accruals in the plan were frozen as of December 31, 2014, at which time active participants were fully vested regardless of years of credited service. The plan was terminated effective as of December 31, 2016, was submitted to the Internal Revenue Service for review and received a favorable determination letter from the Internal Revenue Service. Benefits in the plan were distributed to plan participants during March 2017.

Employees participate in the Farm Credit Benefits Alliance 401(k) Plan, a qualified 401(k) defined contribution plan that has an employer matching contribution determined by the employee's date of hire. Employees hired prior to January 1, 2003 receive a maximum employer matching contribution equal to $0.50 for each $1.00 of employee compensation contributed up to 6 percent, subject to the Internal Revenue Code limitation on compensation. Employees hired on or after January 1, 2003 receive a maximum employer matching contribution equal to $1.00 for each $1.00 of employee compensation contributed up to 6 percent, subject to the Internal Revenue Code limitation on compensation. Beginning January 1, 2015, employees hired on or after January 1, 2003 also received an employer nonelective contribution equal to 3 percent of employee compensation, subject to the Internal Revenue Code limitation on compensation.

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

Chief Executive Officer

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

Mr. Curtis participates in the Farm Credit Benefits Alliance 401(k) Plan, as described above.

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

Senior Officers and Other Highly Compensated Employees

Senior officers and other highly compensated employees participate in one of two qualified defined benefit retirement plans based upon date of hire, as described above.

Senior officers and other highly compensated employees participate in the Farm Credit Benefits Alliance 401(k) Plan, as described above.

Association compensation plans are reviewed annually by the Board's Compensation Committee.

Transactions with Senior Officers and Directors

The reporting entity's policies on loans to and transactions with its officers and directors, and transactions between the Association and directors, that are 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. There have been no transactions between the Association and senior officers that require reporting per the FCA regulations.

Directors

The following chart details the year the director began serving on the Board, the current term of expiration and total cash compensation paid during 2018.

Director	Election Year	Current Term Expiration	Total Compensation
Shawn D. Wolfinger, *2018 Chairman*	2012	2019	$ 39,000
Richard A. Allen, *2018 Vice Chairman*	2011	2018	32,550
Samuel BowerCraft, *Appointed and Outside*	2011	2020	24,500
Donald G. Cotner	1982	2020	22,975
Kevin D. Grim	2016	2019	31,500
Richard D. Shuman	2018	2021	35,000
William K. Jackson	2000	2020	23,550
Larry A. Seibert, *Appointed and Outside*	2016	2020	25,850
Dennis B. Spangler	1994	2018	32,150
Charles F. Ulmer, Jr.	1999	2021	26,550
Christine Waddell	2009	2020	34,350
Brandon L. Weary	2011	2018	5,775
Total			$ 333,750

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, 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 $100,491 for 2018, $115,649 for 2017 and $95,496 for 2016.

Subject to approval by the Board, the Association may allow directors honoraria of up to $700 for attendance at other meetings or special assignments. Directors were paid an annual retainer fee of $7,000, except for the chairman of the Board who receives $11,000. Members of the Executive and Compensation Committee and the Governance Committee also received a $3,000 retainer. Members of the Audit Committee also received a $2,000 retainer. The chairs of the Governance and Audit Committees also received a $1,000 retainer. Total compensation paid to directors as a group was $333,750. No director received more than $5,000 in non-cash compensation during the year.

The following represents certain information regarding the directors of the Association as of the end of 2018 and their principal occupations during the past five years.

Shawn D. Wolfinger, *Chairman***,** is an owner of Timberwolf Lands, LLC. Mr. Wolfinger and his father also own Northern Forests, LLC. These forestry consulting companies provide timber sales for clients in northern Pennsylvania and western New York. They also manage several thousand acres of family owned land through Wolfinger Timberlands, LLC. Mr. Wolfinger holds real estate sales licenses in Pennsylvania and New York through Timberland Realty. He is active in the local community, serving on the Potter County Housing and Redevelopment Authority board of directors. He is a member of the Pennsylvania Forest Products Association, Northcentral Pennsylvania Forest Land Owners Association, Chautauqua County Board of Realtors, Potato Creek Trail Association, Coudersport Golf Club, St. Eulalia Catholic Church and volunteers as a member of the Big 30 Football All Star Selection Committee.

Richard A. Allen, *Vice Chair,* owns and operates Crabapple Valley Farms, a 100-acre registered Black Angus cow/calf operation. He is also employed by Allen-Hill Dairy, LLC. He is a member of the Pennsylvania Angus Association and the Pennsylvania Holstein Association.

Samuel BowerCraft, *Appointed and Outside Director,* is a senior manager in the Internal Audit and Management Consulting group at McKonly & Asbury, LLP. He provides clients with services that focus on risk management related to financial reporting, operations, information systems and assets. He is also a Certified Information Systems Auditor.

Donald G. Cotner, is an officer and owner of Cotner Farms, Inc., which produces, packages, markets and distributes eggs and egg products from nearly 500,000 hens. Don Cotner Farms, LP is a partnership with his two sons and daughter that grows corn, soybeans and barley and manufactures feed on nearly 1,250 acres. The partnership also operates Boyd Station, LLC, which transloads soybean meal from rail to truck to supply local mills. The operation also extrudes local soybeans to produce high-quality express meal and soy oil used in the bio-diesel industry. Mr. Cotner serves on the Board of Trustees of The Pennsylvania State University, the Central Susquehanna Community Foundation Board and the Rush Township Zoning Hearing Board.

Kevin D. Grim, is a grain farmer and owner-operator of Shady Dell Farms, LLC, where he grows corn, soybean and wheat on 1,560 acres. He also custom plants and harvests for other farmers in his community.

William K. Jackson, is a partner in Jackson Farms, a dairy that milks 160 cows and grows corn, soybeans and alfalfa on 900 acres. He is also president of Jackson Farms 2, LLC, which operates an on-farm processing plant and convenience store. He is president of Jackson Farms 3, LLC and managing partner of Jackson Farms, LP, which manage natural gas holdings. He is president of the Fayette County Fair Board and a board member of the Fay-Penn Economic Development Council and the Penn State Fayette, the Eberly Campus Advisory Board. Mr. Jackson also serves on the AgFirst Farm Credit Bank Board of Directors.

Larry A. Seibert, *Appointed and Outside Director***,** retired as a regional manager for the Ben Franklin Technology Partners of Northeast Pennsylvania in 2017. He holds a Masters of Science in Education degree from Bloomsburg University. Mr. Seibert serves on the board of directors of the Susquehanna Economic Development Association – Council of Governments as the treasurer and chair of the finance committee. He also serves as a board member of Core Business Solutions, a board member of the Central Keystone Council of Governments, a member of the tax consolidation committee for Northumberland County and a township supervisor for White Deer Township.

Richard D. Shuman, is an owner and operator of RD Shuman Farms. The farm consists of 675 acres, 92 of which are owned and 583 are rented. He is a grain farmer and has dairy replacements and feeder beef.

Dennis B. Spangler, is an owner/operator of a dairy, crop and solar farm. Mr. Spangler serves as a director on the Union County Conservation District, a member of the Farm Bureau, a member of the local American Dairy Association and Dairy Council Committee, a member of the PA Holstein Association and the Mifflinburg Young Farmers Association. Mr. Spangler served as chairman of the AgChoice Board of Directors from 2013 to 2015.

Charles F. Ulmer, owns a grain and forage operation, farming 2,100 acres. In addition, Mr. Ulmer owns three dairy facilities, providing young and beginning farmers the opportunity to start a career in agriculture.

Christine Waddell, owns and operates Apple Shamrock Farms, LLC, a 2,400-acre farm where she and her family milk 1,200 Holsteins and care for 950 replacement heifers. Crops grown include corn, soybeans, alfalfa and orchard grass. Ms. Waddell actively promotes the dairy industry through her work with the Dairy Princess Program, speakers bureau and offers tours of the dairy farm to local school children.

On February 21, 2018, Director Brandon L. Weary resigned his Board position for personal reasons.

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

	Days Served			
Name	**Board Meetings**	**Other Activities**	**Committee Assignments**	**Compensation for other activities***
Shawn D. Wolfinger, *2018 Chairman*	14	33.0	Executive and Compensation	$ 24,500
Richard A. Allen, *2018 Vice Chairman*	14	31.0	Executive and Compensation	22,050
Samuel BowerCraft, *Appointed and Outside*	14	21.0	Governance	14,000
Donald G. Cotner	9	18.0	Executive and Compensation	12,600
Kevin D. Grim	14	31.0	Audit	21,000
William K Jackson	14	20.0	Executive and Compensation	13,050
Larry A. Seibert, *Appointed and Outside*	12	22.5	Audit	15,350
Richard D. Shuman	14	35.0	Governance	24,500
Dennis B. Spangler	14	31.0	Governance	21,650
Charles F. Ulmer, Jr.	12	22.0	Governance	15,050
Christine Waddell	14	31.0	Audit	21,350
Brandon L. Weary	2	4.5		3,150
Total				$ 208,250

**Included in the Total Compensation amount listed in the previous table.*

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.

Involvement in Certain Legal Proceedings

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

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.

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.

Relationship with Independent Auditors

There were no changes in or material disagreements with our independent auditors 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 auditor, PricewaterhouseCoopers LLP (PwC), for the year ended December 31, 2018 were $50,391, which includes reimbursement for expenses. Fees were for the annual audit of the Consolidated Financial Statements.

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.

Consolidated Financial Statements

The Consolidated Financial Statements, together with the report therein of PwC dated March 13, 2019, and the report of management that 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 1-800-998-5557 or writing Terry Davis, Chief Financial Officer, AgChoice Farm Credit, ACA, 300 Winding Creek Boulevard, Mechanicsburg, PA 17050, or accessing the website at ***www.agchoice.com***. The Association prepares an electronic version of the Annual Report that is available on the Association's website within 75 days after the end of the fiscal year, and distributes the Annual Report 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 needs to be prepared for the fiscal quarter that coincides with the end of the fiscal year of the institution.

Borrower Information Regulations

Since 1972, the FCA regulations have required that borrower information be held in strict confidence by the System institutions, their directors, officers and employees. These regulations provide the System institutions clear guidelines for protecting their borrowers' nonpublic, personal information.

On November 10, 1999, the FCA board adopted a policy that requires the System 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 the FCA regulations and the 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 could be materially affected by the financial condition and results of operations of the Bank. Copies of the Bank's Annual and Quarterly Reports are available upon request, free of charge, by calling 1-800-845-1745, ext. 2832, or writing Susanne Caughman, AgFirst Farm Credit Bank, P.O. Box 1499, Columbia, SC 29202. Information concerning the Bank can also be obtained on AgFirst's website at ***www.agfirst.com***. The Bank prepares an electronic version of the Annual Report that 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. No director who serves on the Committee is an employee of AgChoice Farm Credit, ACA, 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.

PricewaterhouseCoopers LLP (PwC), the Association's independent 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 PwC 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 PwC its independence from AgChoice Farm Credit, ACA. The Committee also reviewed the non-audit services provided by PwC and concluded that these services were not incompatible with maintaining PwC's independence.

Based on the considerations referred to above, the Committee recommended to the Board of Directors that the audited financial statements be included in the Association's Annual Report for 2018. The foregoing report is provided by the following independent directors, who constitute the Committee:

Christine Waddell
Chairman of the 2019 Audit Committee

Members of the 2019 Audit Committee

Donald G. Cotner
Kevin D. Grim
Larry A. Seibert

March 13, 2019

Report of Independent Auditors

To the Board of Directors and Management of
AgChoice Farm Credit, ACA

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

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the 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 the 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 our 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, we consider internal control relevant to the Association'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 Association'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 AgChoice Farm Credit, ACA and its subsidiaries as of December 31, 2018, 2017 and 2016, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

PricewaterhouseCoopers LLP

Miami, Florida

March 13, 2019

PricewaterhouseCoopers LLP, 333 SE 2nd Avenue, Suite 3000, Miami, FL 33131
T: (305) 375 7400, F:(305) 375 6221, www.pwc.com/us

Consolidated Balance Sheets

(dollars in thousands)	December 31, 2018	2017	2016
Assets			
Cash	**$ 83**	$ 16	$ 43
Investments in debt securities:			
Held to maturity (fair value of $0, $2,371, and $2,336, respectively)	**—**	2,205	2,243
Loans	**1,946,184**	1,852,751	1,802,291
Allowance for loan losses	**(14,331)**	(13,492)	(11,802)
Net loans	**1,931,853**	1,839,259	1,790,489
Accrued interest receivable	**8,297**	7,027	6,402
Equity investments in other Farm Credit institutions	**24,141**	24,009	23,295
Premises and equipment, net	**15,766**	11,299	11,527
Other property owned	**76**	26	79
Accounts receivable	**25,311**	27,171	21,595
Other assets	**1,210**	1,424	2,670
Total assets	**$ 2,006,737**	$ 1,912,436	$ 1,858,343
Liabilities			
Notes payable to AgFirst Farm Credit Bank	**$ 1,557,913**	$ 1,487,719	$ 1,464,915
Accrued interest payable	**4,343**	3,500	2,935
Patronage refunds payable	**25,893**	21,593	19,663
Accounts payable	**4,379**	5,384	4,502
Other liabilities	**7,644**	6,440	12,310
Total liabilities	**1,600,172**	1,524,636	1,504,325
Commitments and contingencies (Note 11)			
Members' Equity			
Capital stock and participation certificates	**8,223**	11,020	11,049
Retained earnings			
Allocated	**161,489**	161,489	161,489
Unallocated	**236,910**	215,361	181,537
Accumulated other comprehensive income (loss)	**(57)**	(70)	(57)
Total members' equity	**406,565**	387,800	354,018
Total liabilities and members' equity	**$ 2,006,737**	$ 1,912,436	$ 1,858,343

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE FINANCIAL STATEMENTS.

Consolidated Statements of Income

(dollars in thousands)	For the year ended December 31, 2018	2017	2016
Interest Income			
Loans	**$ 98,821**	$ 88,582	$ 80,056
Investments	**120**	138	141
Total interest income	**98,941**	88,720	80,197
Interest Expense			
Notes payable to AgFirst Farm Credit Bank	**46,658**	39,068	33,517
Net interest income	**52,283**	49,652	46,680
Provision for loan losses	**1,179**	1,707	1,872
Net interest income after provision for loan losses	**51,104**	47,945	44,808
Noninterest Income			
Loan fees	**1,215**	1,327	1,205
Fees for financially related services	**2,303**	2,080	1,909
Patronage refunds from other Farm Credit institutions	**25,081**	26,804	21,279
Gains (losses) on sales of rural home loans, net	**6**	23	18
Gains (losses) on sales of premises and equipment, net	**77**	170	190
Gains (losses) on other transactions	**(111)**	88	(98)
Insurance Fund refunds	**1,268**	—	—
Other noninterest income	**42**	43	54
Total noninterest income	**29,881**	30,535	24,557
Noninterest Expense			
Salaries and employee benefits	**18,563**	17,469	17,704
Occupancy and equipment	**1,338**	1,345	1,278
Insurance Fund premiums	**1,326**	2,156	2,325
(Gains) losses on other property owned, net	**23**	20	306
Other operating expenses	**7,282**	2,142	6,971
Total noninterest expense	**28,532**	23,132	28,584
Income before income taxes	**52,453**	55,348	40,781
Provision (benefit) for income taxes	**173**	252	(72)
Net income	**$ 52,280**	$ 55,096	$ 40,853

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE FINANCIAL STATEMENTS.

Consolidated Statements of Comprehensive Income

(dollars in thousands)	For the year ended December 31, 2018	2017	2016
Net income	**$ 52,280**	$ 55,096	$ 40,853
Other comprehensive income net of tax			
Employee benefit plans adjustments	**13**	(13)	(5)
Comprehensive income	**$ 52,293**	$ 55,083	$ 40,848

Consolidated Statements of Changes in Members' Equity

(dollars in thousands)	Capital Stock and Participation Certificates	Retained Earnings Allocated	Retained Earnings Unallocated	Accumulated Other Comprehensive Income (Loss)	Total Members' Equity
Balance at December 31, 2015	$ 11,054	$ 161,489	$ 159,895	$ (52)	$ 332,386
Comprehensive income			40,853	(5)	40,848
Capital stock/participation certificates issued/(retired), net	(21)				(21)
Dividends declared/paid	16		(16)		—
Patronage distribution					
Cash			(19,200)		(19,200)
Patronage distribution adjustment			5		5
Balance at December 31, 2016	$ 11,049	$ 161,489	$ 181,537	$ (57)	$ 354,018
Comprehensive income			55,096	(13)	55,083
Capital stock/participation certificates issued/(retired), net	(61)				(61)
Dividends declared/paid	32		(32)		—
Patronage distribution					
Cash			(21,250)		(21,250)
Patronage distribution adjustment			10		10
Balance at December 31, 2017	$ 11,020	$ 161,489	$ 215,361	$ (70)	$ 387,800
Comprehensive income			**52,280**	**13**	**52,293**
Capital stock/participation certificates issued/(retired), net	**(2,806)**				**(2,806)**
Dividends declared/paid	**9**		**(9)**		**—**
Patronage distribution					
Cash			**(30,700)**		**(30,700)**
Patronage distribution adjustment			**(22)**		**(22)**
Balance at December 31, 2018	**$ 8,223**	**$ 161,489**	**$ 236,910**	**$ (57)**	**$ 406,565**

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE FINANCIAL STATEMENTS.

Consolidated Statements of Cash Flows

(dollars in thousands)	For the year ended December 31, 2018	2017	2016
Cash flows from operating activities:			
Net income	**$ 52,280**	$ 55,096	$ 40,853
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation on premises and equipment	**977**	$ 981	$ 820
Amortization (accretion) of net deferred loan costs (fees)	**(64)**	(8)	(9)
Provision for loan losses	**1,179**	1,707	1,872
(Gains) losses on other property owned	**16**	10	244
(Gains) losses on sales of premises and equipment, net	**(77)**	(170)	(190)
(Gains) losses on sales of rural home loans, net	**(6)**	(23)	(18)
(Gains) losses on other transactions	**111**	(88)	98
Changes in operating assets and liabilities:			
Origination of loans held for sale	**(261)**	(1,175)	(725)
Proceeds from sales of loans held for sale, net	**267**	1,198	743
(Increase) decrease in accrued interest receivable	**(1,270)**	(625)	(471)
(Increase) decrease in accounts receivable	**1,860**	(5,576)	(483)
(Increase) decrease in other assets	**214**	1,246	1,542
Increase (decrease) in accrued interest payable	**843**	565	297
Increase (decrease) in accounts payable	**(1,005)**	882	722
Increase (decrease) in other liabilities	**1,106**	(5,795)	1,064
Total adjustments	**3,890**	(6,871)	5,506
Net cash provided by (used in) operating activities	**56,170**	48,225	46,359
Cash flows from investing activities:			
Proceeds from maturities of or principal payments received on investments in debt securities, held to maturity	**2,205**	38	34
Net (increase) decrease in loans	**(93,855)**	(50,485)	(108,603)
(Increase) decrease in equity investments in other Farm Credit institutions	**(132)**	(714)	(741)
Purchases of premises and equipment	**(5,456)**	(969)	(5,197)
Proceeds from sales of premises and equipment	**89**	386	1,363
Proceeds from sales of other property owned	**80**	59	792
Net cash provided by (used in) investing activities	**(97,069)**	(51,685)	(112,352)
Cash flows from financing activities:			
Advances on (repayment of) notes payable to AgFirst Farm Credit Bank, net	**70,194**	22,804	84,085
Capital stock and participation certificates issued/(retired), net	**(2,806)**	(61)	(21)
Patronage refunds and dividends paid	**(26,422)**	(19,310)	(18,078)
Net cash provided by (used in) financing activities	**40,966**	3,433	65,986
Net increase (decrease) in cash	**67**	(27)	(7)
Cash, beginning of period	**16**	43	50
Cash, end of period	**$ 83**	$ 16	$ 43
Supplemental schedule of non-cash activities:			
Receipt of property in settlement of loans	**$ 146**	$ 16	$ 137
Estimated cash dividends or patronage distributions declared or payable	**30,700**	21,250	19,200
Dividends declared or payable in shares of preferred stock	**9**	32	16
Employee benefit plans adjustments (Note 9)	**(13)**	13	5
Supplemental information:			
Interest paid	**45,815**	38,503	33,220
Taxes (refunded) paid, net	**185**	140	—

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:** AgChoice Farm Credit, ACA (Association) is a member-owned cooperative that provides credit and credit-related services to qualified borrowers in the counties of Adams, Allegheny, Armstrong, Beaver, Bedford, Blair, Bradford, Butler, Cambria, Cameron, Centre, Clarion, Clearfield, Clinton, Columbia, Crawford, Cumberland, Elk, Erie, Fayette, Forest, Franklin, Fulton, Greene, Huntingdon, Indiana, Jefferson, Juniata, Lackawanna, Lawrence, Luzerne, Lycoming, McKean, Mercer, Mifflin, Montour, Northumberland, Perry, Potter, Snyder, Somerset, Sullivan, Susquehanna, Tioga, Union, Venango, Warren, Washington, Wayne, Westmoreland, Wyoming and York in the state of Pennsylvania, and Brooke, Hancock, Marwill and Ohio in the state of West Virginia.

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 banks. System banks are also responsible for supervising the activities of associations within their districts. AgFirst (Bank) and its related associations (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 19 District associations. All 19 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 (FCSIC) to administer the Farm Credit Insurance Fund (Insurance Fund). The Insurance Fund is required to be used (1) to ensure the timely payment of principal and interest on Systemwide debt obligations (Insured Debt), (2) to ensure the retirement of protected borrower capital at par or stated value and (3) for other specified purposes. The Insurance Fund is also available for discretionary uses by the FCSIC to provide assistance to certain troubled System institutions and to cover the operating expenses of the FCSIC. Each System bank has been required to pay premiums, which may be passed on to associations, 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 two percent of the aggregate insured obligations (adjusted to reflect the reduced risk on loans or investments guaranteed by federal or state governments) or such other percentage of the aggregate obligations as the FCSIC at its sole discretion determines to be actuarially sound. When the amount in the Insurance Fund exceeds the secure base amount, the FCSIC is required to reduce premiums and may return excess funds above the secure base amount to System institutions. However, it must still ensure that reduced premiums are sufficient to maintain the level of the Insurance Fund at the secure base amount.

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 District 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 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 each association. Each advance is structured such that the principal cash flow, repricing characteristics and underlying index (if any) of the advance match those of the assets being funded. By match-funding the loans, each association's 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 specific services.

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 borrower, 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, including crop insurance and related products available through the risk management agency in the United States Department of Agriculture (USDA).

The Association provides additional services to borrowers such as financial record keeping, payroll, tax return preparation, tax planning, farm accounting software, fee appraisals, business consulting and leasing.

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, Allowance for Loan Losses and Reserve for Unfunded Commitments:** 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 amounts 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 and
- 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.

The Association has established a reserve for unfunded commitments that provides for potential losses related to unfunded commitments and is maintained at a level that is considered the best estimate of the amount required to absorb estimated probable losses related to these unfunded commitments. The reserve is determined using a methodology similar to that of the allowance for loan losses. The reserve for unfunded commitment is recorded as a liability in the Consolidated Balance Sheets.

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):** OPO 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 OPO are included in gains (losses) from OPO, Net in the Consolidated Statements of 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 has held 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.

Other Investments
As discussed in Note 8, certain investments, consisting primarily of mutual funds, are held in trust and investment accounts and are reported at fair value. Holding period gains and losses are included within Noninterest Income on the Consolidated Statements of Income and the balance of these investments, totaling $601, is included in Other Assets on the accompanying Consolidated Balance Sheets as of December 31, 2018.

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 other liabilities 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 (IRS). Company contributions to the 401(k) Plan are expensed as funded.

Additional information may be found in Note 9.

Multiemployer Defined Benefit Plans
Substantially all employees hired before January 1, 2003 may participate in the AgFirst Farm Credit Retirement Plan (Plan), which is a defined benefit plan and considered multiemployer 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 employees, their beneficiaries and covered dependents during the years the employees render 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.

Single Employer Defined Benefit Plans
The Association also sponsors a single employer defined benefit supplemental retirement plan and offers an FCBA supplemental 401(k) plan for certain key employees. These plans are nonqualified; therefore, the associated liabilities are included in the Association's Consolidated Balance Sheets in Other Liabilities.

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

Additional information may be found in Note 9.

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.

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 prices have 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 borrowers, 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 borrower to a third party. These letters of credit are issued to facilitate commerce and can result in the commitment being funded when the underlying transaction is consummated between the borrower 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 and OPO are included as part of Noninterest Income. 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. Adoption of the guidance will have no impact on the Association's statements of financial condition and results of operations.

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. 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 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. 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 March 2017, the FASB issued ASU 2017-07 Compensation—Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost related to the income statement presentation of the components of net periodic benefit cost for an entity's sponsored defined benefit pension and other postretirement plans. The amendments were effective January 1, 2018 for the Association. Adoption in 2018 did not have a material effect on the Association's financial statements, but did require reclassification of certain periodic pension costs to Other Operating Expenses.

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.
- 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.

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 a borrower 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 borrower. The Association sets its own underwriting standards and lending policies that provide direction to loan officers and are approved by the Board of Directors (Board).

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 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 the 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 5 to 30 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 10 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 service 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 US 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.

Following is a summary of loans outstanding at period end.

	December 31, 2018	December 31, 2017	December 31, 2016
Real estate mortgage	$ 941,675	$ 869,306	$ 811,807
Production and intermediate-term	628,542	624,351	647,005
Loans to cooperatives	41,041	48,678	53,928
Processing and marketing	142,471	137,310	116,574
Farm-related business	41,486	38,881	39,173
Communication	88,462	78,911	78,626
Power and water/waste disposal	20,650	23,257	22,391
Rural residential real estate	19,923	19,432	19,804
International	16,977	11,964	11,969
Lease receivables	4,957	661	936
Other (including Mission Related)	–	–	78
Total loans	$ 1,946,184	$ 1,852,751	$ 1,802,291

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 inventory and 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 the FCA regulations. The following tables present the principal balance of participation loans for the given periods.

	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	$ 13,154	$ 30,744	$ 6,357	$ –	$ –	$ –	$ 19,511	$ 30,744
Production and intermediate-term	38,665	19,377	35,587	8,948	–	–	74,252	28,325
Loans to cooperatives	–	–	41,139	–	–	–	41,139	–
Processing and marketing	41,624	599	44,410	–	–	–	86,034	599
Farm-related business	–	260	–	–	–	–	–	260
Communication	8,109	–	80,578	–	–	–	88,687	–
Power and water/waste disposal	8,100	–	12,609	–	–	–	20,709	–
Rural residential real estate	–	145	–	–	–	–	–	145
International	–	–	17,000	–	–	–	17,000	–
Lease receivables	–	–	4,956	–	–	–	4,956	–
Total	$ 109,652	$ 51,125	$ 242,636	$ 8,948	$ –	$ –	$ 352,288	$ 60,073

	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	$ 6,574	$ 27,578	$ 7,121	$ –	$ –	$ –	$ 13,695	$ 27,578
Production and intermediate-term	45,021	15,453	41,164	7,219	–	–	86,185	22,672
Loans to cooperatives	–	–	48,725	–	–	–	48,725	–
Processing and marketing	37,003	–	47,814	–	–	–	84,817	–
Farm-related business	–	337	–	–	–	–	–	337
Communication	10,100	–	69,037	–	–	–	79,137	–
Power and water/waste disposal	8,698	–	14,648	–	–	–	23,346	–
Rural residential real estate	–	157	–	–	–	–	–	157
International	–	–	12,000	–	–	–	12,000	–
Lease receivables	–	–	661	–	–	–	661	–
Total	$ 107,396	$ 43,525	$ 241,170	$ 7,219	$ –	$ –	$ 348,566	$ 50,744

	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	$ 15,509	$ 34,989	$ 9,692	$ –	$ –	$ –	$ 25,201	$ 34,989
Production and intermediate-term	37,016	19,438	70,814	7,990	–	–	107,830	27,428
Loans to cooperatives	–	–	53,971	–	–	–	53,971	–
Processing and marketing	24,886	324	51,640	–	–	–	76,526	324
Farm-related business	–	421	–	–	–	–	–	421
Communication	8,304	–	70,533	–	–	–	78,837	–
Power and water/waste disposal	3,693	–	18,784	–	–	–	22,477	–
Rural residential real estate	–	169	–	–	–	–	–	169
International	–	–	12,000	–	–	–	12,000	–
Lease receivables	–	–	776	–	–	–	776	–
Total	$ 89,408	$ 55,341	$ 288,210	$ 7,990	$ –	$ –	$ 377,618	$ 63,331

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	$ 24,481	$ 167,254	$ 749,940	$ 941,675
Production and intermediate-term	153,544	314,968	160,030	628,542
Loans to cooperatives	–	25,958	15,083	41,041
Processing and marketing	9,514	82,765	50,192	142,471
Farm-related business	8,860	21,045	11,581	41,486
Communication	6,899	45,918	35,645	88,462
Power and water/waste disposal	–	11,038	9,612	20,650
Rural residential real estate	465	2,537	16,921	19,923
International	–	10,589	6,388	16,977
Lease receivables	11	393	4,553	4,957
Total loans	$ 203,774	$ 682,465	$ 1,059,945	$ 1,946,184
Percentage	10.47%	35.07%	54.46%	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 for the given periods.

	December 31, 2018	2017	2016
Real estate mortgage:			
Acceptable	94.98%	95.37%	95.85%
OAEM	1.89	1.61	1.56
Substandard/doubtful/loss	3.13	3.02	2.59
	100.00%	100.00%	100.00%
Production and intermediate-term:			
Acceptable	93.52%	93.83%	94.78%
OAEM	3.06	3.38	2.63
Substandard/doubtful/loss	3.42	2.79	2.59
	100.00%	100.00%	100.00%
Loans to cooperatives:			
Acceptable	100.00%	100.00%	100.00%
OAEM	–	–	–
Substandard/doubtful/loss	–	–	–
	100.00%	100.00%	100.00%
Processing and marketing:			
Acceptable	99.16%	100.00%	100.00%
OAEM	0.84	–	–
Substandard/doubtful/loss	–	–	–
	100.00%	100.00%	100.00%
Farm-related business:			
Acceptable	97.18%	97.39%	99.60%
OAEM	1.15	2.55	0.12
Substandard/doubtful/loss	1.67	0.06	0.28
	100.00%	100.00%	100.00%
Communication:			
Acceptable	97.65%	100.00%	96.28%
OAEM	2.35	–	3.72
Substandard/doubtful/loss	–	–	–
	100.00%	100.00%	100.00%

	December 31, 2018	2017	2016
Power and water/waste disposal:			
Acceptable	100.00%	90.44%	89.95%
OAEM	–	–	10.05
Substandard/doubtful/loss	–	9.56	–
	100.00%	100.00%	100.00%
Rural residential real estate:			
Acceptable	93.70%	92.75%	92.81%
OAEM	2.48	2.78	2.69
Substandard/doubtful/loss	3.82	4.47	4.50
	100.00%	100.00%	100.00%
International:			
Acceptable	100.00%	100.00%	100.00%
OAEM	–	–	–
Substandard/doubtful/loss	–	–	–
	100.00%	100.00%	100.00%
Lease receivables:			
Acceptable	100.00%	92.55%	80.01%
OAEM	–	–	11.21
Substandard/doubtful/loss	–	7.45	8.78
	100.00%	100.00%	100.00%
Other (including Mission Related):			
Acceptable	–%	–%	100.00%
OAEM	–	–	–
Substandard/doubtful/loss	–	–	–
	–%	–%	100.00%
Total loans:			
Acceptable	95.19%	95.49%	95.87%
OAEM	2.12	1.98	1.97
Substandard/doubtful/loss	2.69	2.53	2.16
	100.00%	100.00%	100.00%

The following tables provide an aging analysis of past due loans and related accrued interest for the given periods:

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 and Accrued Interest
Real estate mortgage	$ 1,442	$ 889	$ 2,331	$ 943,295	$ 945,626
Production and intermediate-term	1,632	1,890	3,522	628,106	631,628
Loans to cooperatives	–	–	–	41,134	41,134
Processing and marketing	–	–	–	143,088	143,088
Farm-related business	–	–	–	41,762	41,762
Communication	–	–	–	88,494	88,494
Power and water/waste disposal	–	–	–	20,674	20,674
Rural residential real estate	170	132	302	19,688	19,990
International	–	–	–	17,109	17,109
Lease receivables	–	–	–	4,976	4,976
Total	$ 3,244	$ 2,911	$ 6,155	$ 1,948,326	$ 1,954,481

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 and Accrued Interest
Real estate mortgage	$ 2,398	$ 342	$ 2,740	$ 869,914	$ 872,654
Production and intermediate-term	1,406	1,948	3,354	623,564	626,918
Loans to cooperatives	–	–	–	48,743	48,743
Processing and marketing	–	–	–	137,913	137,913
Farm-related business	529	–	529	38,508	39,037
Communication	–	–	–	79,031	79,031
Power and water/waste disposal	–	–	–	23,310	23,310
Rural residential real estate	196	234	430	19,071	19,501
International	–	–	–	11,997	11,997
Lease receivables	–	–	–	663	663
Total	$ 4,529	$ 2,524	$ 7,053	$ 1,852,714	$ 1,859,767

	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 and Accrued Interest
Real estate mortgage	$ 3,030	$ 1,104	$ 4,134	$ 810,932	$ 815,066
Production and intermediate-term	2,534	948	3,482	645,727	649,209
Loans to cooperatives	–	–	–	53,986	53,986
Processing and marketing	–	–	–	116,930	116,930
Farm-related business	474	–	474	38,966	39,440
Communication	–	–	–	78,654	78,654
Power and water/waste disposal	–	–	–	22,450	22,450
Rural residential real estate	258	–	258	19,619	19,877
International	–	–	–	12,052	12,052
Lease receivables	–	–	–	939	939
Other (including Mission Related)	–	–	–	79	79
Total	$ 6,296	$ 2,052	$ 8,348	$ 1,800,334	$ 1,808,682

Nonperforming assets (including related accrued interest) and related credit quality statistics at period end were as follows.

	December 31, 2018	2017	2016
Nonaccrual loans:			
Real estate mortgage	$ 7,844	$ 11,802	$ 11,943
Production and intermediate-term	3,962	8,072	10,609
Processing and marketing	–	–	4
Farm-related business	20	–	–
Rural residential real estate	163	235	49
Lease receivables	–	49	82
Other (including Mission Related)	–	–	–
Total	$ 11,989	$ 20,158	$ 22,687
Accruing restructured loans:			
Real estate mortgage	$ 60	$ 324	$ 499
Production and intermediate-term	19	144	840
Farm-related business	–	–	381
Total	$ 79	$ 468	$ 1,720
Accruing loans 90 days or more past due:			
Total	$ –	$ –	$ –
Total nonperforming loans	$ 12,068	$ 20,626	$ 24,407
Other property owned	76	26	79
Total nonperforming assets	$ 12,144	$ 20,652	$ 24,486
Nonaccrual loans as a percentage of total loans	0.62%	1.09%	1.26%
Nonperforming assets as a percentage of total loans and other property owned	0.62%	1.11%	1.36%
Nonperforming assets as a percentage of capital	2.99%	5.33%	6.92%

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	$ 8,836	$ 16,346	$ 19,163
Past due	3,153	3,812	3,524
Total	$ 11,989	$ 20,158	$ 22,687
Impaired accrual loans:			
Restructured	$ 79	$ 468	$ 1,720
90 days or more past due	–	–	–
Total	$ 79	$ 468	$ 1,720
Total impaired loans	$ 12,068	$ 20,626	$ 24,407
Additional commitments to lend	$ 401	$ 27	$ 353

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

	December 31, 2018			Year Ended December 31, 2018	
Impaired loans:	**Recorded Investment**	**Unpaid Principal Balance**	**Related Allowance**	**Average Impaired Loans**	**Interest Income Recognized on Impaired Loans**
With a related allowance for credit losses:					
Production and intermediate-term	$ 84	$ 148	$ 45	$ 114	$ 9
Total	$ 84	$ 148	$ 45	$ 114	$ 9
With no related allowance for credit losses:					
Real estate mortgage	$ 7,904	$ 9,821	$ –	$ 10,715	$ 815
Production and intermediate-term	3,897	5,573	–	5,283	402
Farm-related business	20	353	–	26	2
Rural residential real estate	163	277	–	222	17
Total	$ 11,984	$ 16,024	$ –	$ 16,246	$ 1,236
Total:					
Real estate mortgage	$ 7,904	$ 9,821	$ –	$ 10,715	$ 815
Production and intermediate-term	3,981	5,721	45	5,397	411
Farm-related business	20	353	–	26	2
Rural residential real estate	163	277	–	222	17
Total	$ 12,068	$ 16,172	$ 45	$ 16,360	$ 1,245

	December 31, 2017			Year Ended December 31, 2017	
Impaired loans:	**Recorded Investment**	**Unpaid Principal Balance**	**Related Allowance**	**Average Impaired Loans**	**Interest Income Recognized on Impaired Loans**
With a related allowance for credit losses:					
Real estate mortgage	$ 1,685	$ 1,869	$ 310	$ 1,833	$ –
Production and intermediate-term	586	684	159	637	–
Lease receivables	49	50	–	54	–
Total	$ 2,320	$ 2,603	$ 469	$ 2,524	$ –
With no related allowance for credit losses:					
Real estate mortgage	$ 10,441	$ 12,063	$ –	$ 11,358	$ 707
Production and intermediate-term	7,630	9,250	–	8,300	806
Farm-related business	–	507	–	–	130
Rural residential real estate	235	343	–	255	14
Total	$ 18,306	$ 22,163	$ –	$ 19,913	$ 1,657
Total:					
Real estate mortgage	$ 12,126	$ 13,932	$ 310	$ 13,191	$ 707
Production and intermediate-term	8,216	9,934	159	8,937	806
Farm-related business	–	507	–	–	130
Rural residential real estate	235	343	–	255	14
Lease receivables	49	50	–	54	–
Total	$ 20,626	$ 24,766	$ 469	$ 22,437	$ 1,657

	December 31, 2016			Year Ended December 31, 2016	
Impaired loans:	**Recorded Investment**	**Unpaid Principal Balance**	**Related Allowance**	**Average Impaired Loans**	**Interest Income Recognized on Impaired Loans**
With a related allowance for credit losses:					
Production and intermediate-term	$ 3,479	$ 3,569	$ 795	$ 3,133	$ –
Total	$ 3,479	$ 3,569	$ 795	$ 3,133	$ –
With no related allowance for credit losses:					
Real estate mortgage	$ 12,442	$ 14,230	$ –	$ 11,206	$ 378
Production and intermediate-term	7,970	9,952	–	7,178	455
Processing and marketing	4	1	–	4	–
Farm-related business	381	1,050	–	343	–
Rural residential real estate	49	161	–	44	–
Lease receivables	82	136	–	74	–
Total	$ 20,928	$ 25,530	$ –	$ 18,849	$ 833
Total:					
Real estate mortgage	$ 12,442	$ 14,230	$ –	$ 11,206	$ 378
Production and intermediate-term	11,449	13,521	795	10,311	455
Processing and marketing	4	1	–	4	–
Farm-related business	381	1,050	–	343	–
Rural residential real estate	49	161	–	44	–
Lease receivables	82	136	–	74	–
Total	$ 24,407	$ 29,099	$ 795	$ 21,982	$ 833

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*	Communication	Power and Water/Waste Disposal	Rural Residential Real Estate	International	Lease Receivables	Other (including Mission Related)	Total
Activity related to the allowance for credit losses:										
Balance at December 31, 2017	$ 3,298	$ 5,756	$ 1,888	$ 803	$ 1,618	$ 95	$ 27	$ 7	$ –	$ 13,492
Charge-offs	–	(25)	–	–	(304)	(16)	–	(16)	–	(361)
Recoveries	1	20	–	–	–	–	–	–	–	21
Provision for loan losses	(106)	(426)	1,792	454	(1,082)	13	249	285	–	1,179
Balance at December 31, 2018	$ 3,193	$ 5,325	$ 3,680	$ 1,257	$ 232	$ 92	$ 276	$ 276	$ –	$ 14,331
Balance at December 31, 2016	$ 1,184	$ 6,057	$ 1,996	$ 1,496	$ 956	$ 68	$ 34	$ 10	$ 1	$ 11,802
Charge-offs	–	(60)	–	–	–	–	–	–	–	(60)
Recoveries	–	14	–	–	–	–	–	29	–	43
Provision for loan losses	2,114	(255)	(108)	(693)	662	27	(7)	(32)	(1)	1,707
Balance at December 31, 2017	$ 3,298	$ 5,756	$ 1,888	$ 803	$ 1,618	$ 95	$ 27	$ 7	$ –	$ 13,492
Balance at December 31, 2015	$ 1,753	$ 5,447	$ 1,341	$ 1,080	$ 204	$ 147	$ 25	$ 29	$ 2	$ 10,028
Charge-offs	–	(135)	–	–	–	–	–	–	–	(135)
Recoveries	–	35	–	–	–	–	–	2	–	37
Provision for loan losses	(569)	710	655	416	752	(79)	9	(21)	(1)	1,872
Balance at December 31, 2016	$ 1,184	$ 6,057	$ 1,996	$ 1,496	$ 956	$ 68	$ 34	$ 10	$ 1	$ 11,802
Allowance on loans evaluated for impairment:										
Individually	$ –	$ 45	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ 45
Collectively	3,193	5,280	3,680	1,257	232	92	276	276	–	14,286
Balance at December 31, 2018	$ 3,193	$ 5,325	$ 3,680	$ 1,257	$ 232	$ 92	$ 276	$ 276	$ –	$ 14,331
Individually	$ 310	$ 159	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ 469
Collectively	2,988	5,597	1,888	803	1,618	95	27	7	–	13,023
Balance at December 31, 2017	$ 3,298	$ 5,756	$ 1,888	$ 803	$ 1,618	$ 95	$ 27	$ 7	$ –	$ 13,492
Individually	$ –	$ 795	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ 795
Collectively	1,184	5,262	1,996	1,496	956	68	34	10	1	11,007
Balance at December 31, 2016	$ 1,184	$ 6,057	$ 1,996	$ 1,496	$ 956	$ 68	$ 34	$ 10	$ 1	$ 11,802
Recorded investment in loans evaluated for impairment:										
Individually	$ 5,707	$ 1,266	$ –	$ –	$ –	$ –	$ –	$ –	$ –	$ 6,973
Collectively	939,919	630,362	225,984	88,494	20,674	19,990	17,109	4,976	–	1,947,508
Balance at December 31, 2018	$ 945,626	$ 631,628	$ 225,984	$ 88,494	$ 20,674	$ 19,990	$ 17,109	$ 4,976	$ –	$ 1,954,481
Individually	$ 9,620	$ 4,796	$ –	$ –	$ –	$ –	$ –	$ 50	$ –	$ 14,466
Collectively	863,034	622,122	225,693	79,031	23,310	19,501	11,997	613	–	1,845,301
Balance at December 31, 2017	$ 872,654	$ 626,918	$ 225,693	$ 79,031	$ 23,310	$ 19,501	$ 11,997	$ 663	$ –	$ 1,859,767
Individually	$ 9,380	$ 7,615	$ –	$ –	$ –	$ –	$ –	$ 83	$ –	$ 17,078
Collectively	805,686	641,594	210,356	78,654	22,450	19,877	12,052	856	79	1,791,604
Balance at December 31, 2016	$ 815,066	$ 649,209	$ 210,356	$ 78,654	$ 22,450	$ 19,877	$ 12,052	$ 939	$ 79	$ 1,808,682

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

To mitigate risk of loan losses, the Association may enter into guarantee arrangements with certain Government Sponsored Enterprises (GSEs), including the Federal Agricultural Mortgage Corporation (Farmer Mac) and state or federal agencies. These guarantees generally remain in place until the loans are paid in full or expire and give the Association the right to be reimbursed for losses incurred or to sell designated loans to the guarantor in the event of default (typically four months past due), subject to certain conditions. The guaranteed balance of designated loans under these agreements was $50,552, $56,696 and $61,837 at December 31, 2018, 2017 and 2016, respectively. Fees paid for such guarantee commitments totaled $43, $81 and $116 for 2018, 2017 and 2016, respectively. These amounts are classified as noninterest expense.

A restructuring of a debt constitutes a TDR if the creditor, for economic or legal reasons related to the borrower's financial difficulties, grants a concession to the borrower 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.

	Year Ended December 31, 2018				
Outstanding Recorded Investment	Interest Concessions	Principal Concessions	Other Concessions	Total	Charge-offs
Pre-modification:					
Real estate mortgage	$ 145	$ –	$ –	$ 145	
Production and intermediate-term	42	–	–	42	
Total	$ 187	$ –	$ –	$ 187	
Post-modification:					
Real estate mortgage	$ 145	$ –	$ –	$ 145	$ –
Production and intermediate-term	42	–	–	42	–
Total	$ 187	$ –	$ –	$ 187	$ –

	Year Ended December 31, 2017				
Outstanding Recorded Investment	Interest Concessions	Principal Concessions	Other Concessions	Total	Charge-offs
Pre-modification:					
Real estate mortgage	$ –	$ 320	$ –	$ 320	
Production and intermediate-term	1,207	1,032	–	2,239	
Total	$ 1,207	$ 1,352	$ –	$ 2,559	
Post-modification:					
Real estate mortgage	$ –	$ 301	$ –	$ 301	$ –
Production and intermediate-term	1,343	1,032	–	2,375	–
Total	$ 1,343	$ 1,333	$ –	$ 2,676	$ –

	Year Ended December 31, 2016				
Outstanding Recorded Investment	Interest Concessions	Principal Concessions	Other Concessions	Total	Charge-offs
Pre-modification:					
Real estate mortgage	$ –	$ 149	$ –	$ 149	
Production and intermediate-term	228	1,501	–	1,729	
Total	$ 228	$ 1,650	$ –	$ 1,878	
Post-modification:					
Real estate mortgage	$ –	$ 149	$ –	$ 149	$ –
Production and intermediate-term	228	1,501	–	1,729	–
Total	$ 228	$ 1,650	$ –	$ 1,878	$ –

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 that might be in the form of cash or other assets.

The following table presents outstanding recorded investment for TDRs that occurred during the previous 12 months, and for which there was a subsequent payment default during that period. Payment default is defined as a payment that was 30 days or more past due.

	Year Ended December 31,		
Defaulted troubled debt restructurings	2018	2017	2016
Real estate mortgage	$ 133	$ –	$ –
Production and intermediate-term	37	–	888
Total	$ 170	$ –	$ 888

The following table provides information at period-end on outstanding loans restructured in TDRs. 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	$ 1,161	$ 2,872	$ 1,140	$ 1,101	$ 2,548	$ 641
Production and intermediate-term	1,451	3,071	7,381	1,432	2,927	6,541
Farm-related business	–	–	381	–	–	–
Total loans	$ 2,612	$ 5,943	$ 8,902	$ 2,533	$ 5,475	$ 7,182
Additional commitments to lend	$ –	$ 27	$ 302			

The following table presents information as of the latest period-end.

	December 31, 2018
Carrying amount of foreclosed residential real estate properties held as a result of obtaining physical possession	$ 76
Recorded investment of consumer mortgage loans secured by residential real estate for which formal foreclosure proceedings are in process	$ 46

Note 4 — Investments

Investments in Debt Securities

The Association's investments consist primarily of Rural America Bonds (RABs), which are private placement securities purchased under the Mission Related Investment (MRI) program approved by the FCA. In its Conditions of Approval for the program, the FCA generally considers an RAB ineligible if its investment rating, based on the internal 14-point risk rating scale used to also grade loans, falls below 9 and requires System institutions to provide notification to the FCA when a security becomes ineligible. Any other bonds purchased under the MRI program, approved on a case-by-case basis by FCA, may have different eligibility requirements. At December 31, 2018, the Association held no RABs whose credit quality had deteriorated beyond the program limits.

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

	December 31, 2017				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Yield
RABs	$ 2,205	$ 166	$ –	$ 2,371	6.23%

	December 31, 2016				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Yield
RABs	$ 2,243	$ 93	$ –	$ 2,336	6.23%

An investment is considered impaired if its fair value is less than its cost. A continuous unrealized loss position for an investment is based on the date the impairment was first identified. The Association had no investments 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 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's investment in the Bank totaled $23,108 for 2018, $22,947 for 2017 and $22,258 for 2016. The Association owns 8.45 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. In addition, the Association had an investment of $1,033 related to other System institutions at December 31, 2018.

Note 5 — Real Estate and Other Property

Premises and Equipment
Premises and equipment consist of the following.

	December 31, 2018	December 31, 2017	December 31, 2016
Land and improvements	$ 2,745	$ 1,513	$ 1,551
Buildings and improvements	12,753	9,710	9,957
Furniture and equipment	5,104	4,575	4,584
	20,602	15,798	16,092
Less: accumulated depreciation	4,836	4,499	4,565
Total	$ 15,766	$ 11,299	$ 11,527

At December 31, 2018, future minimum lease payments under non-cancelable operating leases are as follows.

2019	$ 21
2020	18
2021	13
2022	3
2023	1
Subsequent years	–
Total minimum lease payments	$ 56

Other Property Owned
Net (gains) losses on OPO consist of the following.

	Year Ended December 31, 2018	2017	2016
(Gains) losses on sale, net	$ 16	$ 9	$ 157
Carrying value unrealized (gains) losses	–	1	87
Operating (income) expense, net	7	10	62
(Gains) losses on other property owned, net	$ 23	$ 20	$ 306

Gains on sales of OPO 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 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 that 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 the 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, 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 3.43 percent for LIBOR-based loans and 3.35 percent for Prime-based loans, and the weighted-average remaining maturities were 3.7 years and 10.4 years, respectively, at December 31, 2018. The weighted-average interest rate on the fixed rate and adjustable rate mortgage (ARM) loans that are match-funded by the Bank was 3.34 percent, and the weighted average remaining maturity was 10.0 years at December 31, 2018. The weighted-average interest rate on all interest-bearing notes payable was 3.37 percent and the weighted-average remaining maturity was 8.0 years at December 31, 2018. Variable rate and fixed rate notes payable represent approximately 13.60 percent and 86.40 percent, respectively, of total notes payable at December 31, 2018. The weighted average maturities described above are related to match-funded loans. The direct note itself has an annual maturity as prescribed in the GFA.

Note 7 — Members' Equity

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 Class C 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 statutory minimum investment of one thousand dollars or two percent of the amount of the loan, whichever is less. The Board may increase the amount of investment if necessary to meet the Association's capital needs.

   Loans designated for sale or sold into the secondary mortgage 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 the borrower. 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 the 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 seven years, allocated equities held for a minimum of seven 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 five years, subordinated debt and limited-life preferred stock greater than five 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 PCR is all at-risk borrower stock, any allocated excess stock, unallocated retained earnings, paid-in capital, subordinated debt and preferred stock subject to certain limitations, less certain investments in other System institutions, divided by PCR risk-adjusted assets.
- The tier 1 leverage ratio is tier 1 capital, divided by average 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 that 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%	18.29%	17.68%
Tier 1 Capital	6.0%	1.25%	7.25%	18.29%	17.68%
Total Capital	8.0%	1.25%	9.25%	18.99%	18.34%
Permanent Capital	7.0%	0.00%	7.00%	18.42%	17.94%
Non-risk-adjusted ratios:					
Tier 1 Leverage	4.0%	1.0%	5.0%	19.76%	19.05%
URE and UREE Leverage	1.5%	0.0%	1.5%	19.87%	19.15%

** The capital conservation buffers have a three 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 Classes A and D preferred stock, Classes A and C common stock, Class C 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 per share.

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

Class	Protected	Shares Outstanding Number	Aggregate Par Value
A Preferred/Nonvoting	No	3,766	$ 19
C Common/Voting	No	1,541,686	7,708
C Participation Certificates/Nonvoting	No	99,183	496
Total Capital Stock and Participation Certificates		1,644,635	$ 8,223

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.

Surplus

The Association maintains an unallocated surplus account and an allocated surplus account. The minimum aggregate amount of these two accounts is determined by the Board. At the end of any fiscal year, if the surplus 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 will apply earnings for the year to the unallocated surplus account in such amounts as may be determined necessary by the Board.

The Association maintains an allocated surplus 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 surplus 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 surplus 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 by the Board, may order any and all surplus account allocations owned by such borrower to be applied on the indebtedness.

Allocated equities will be retired solely at the discretion of the Board, provided 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 $161,489 of nonqualified retained surplus.

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 will always be available to be paid in cash.

Dividends

Dividends may be paid on stock and participation certificates as determined by the Board's resolution. Dividends may not be paid on common stock and participation certificates during any fiscal year with respect to which the Association has obligated itself to distribute earnings on a patronage basis pursuant to the Bylaws. The rate of dividends paid on Class A preferred stock for any fiscal year may not be less than the rate of dividend paid on common stock or participation certificates for such year. All dividends will be paid on a per share basis. Dividends on common stock and participation certificates will be noncumulative without preference between classes.

Transfer

Class A common stock, Class C common stock, Class C participation certificates and Class A preferred stock may be transferred to persons or entities eligible to receive or to hold such stock or certificates under the Bylaws.

Impairment

Losses that result in any impairment of the Association's capital will be borne ratably by, first, unallocated surplus account; second, allocated surplus account (latest allocation first); third, each share of Class A common stock, Class C common stock and unit of Class C participation certificates outstanding and fourth, each share of Class A preferred stock and Class D preferred stock outstanding. Notwithstanding the above sentence, the Association, when retiring stock and participation certificates, will retire such equities at par value to the extent required by the Farm Credit Act.

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 order that follows.

1. Classes A and D preferred stock.
2. Classes A and C common stock and Class C participation certificates.
3. Allocated surplus evidenced by qualified written notices of allocation on the basis of oldest allocations first.
4. Allocated surplus evidenced by nonqualified notices of allocation on the basis of oldest allocations first.
5. Unallocated surplus will be distributed to holders of Class C common stock, Class A common stock and Class C participation certificates on a patronage basis.

D. **Accumulated Other Comprehensive Income (AOCI).**

Changes in Accumulated Other Comprehensive Income by Component *(a)*

	For the Years Ended December 31,		
	2018	2017	2016
Employee Benefit Plans:			
Balance at beginning of period	$ (70)	$ (57)	$ (52)
Other comprehensive income before reclassifications	11	(15)	(6)
Amounts reclassified from AOCI	2	2	1
Net current period OCI	13	(13)	(5)
Balance at end of period	$ (57)	$ (70)	$ (57)

Reclassifications Out of Accumulated Other Comprehensive Income *(b)*

	Year to Date			
	2018	2017	2016	Income Statement Line Item
Defined Benefit Pension Plans:				
Periodic pension costs	$ (2)	$ (2)	$ (1)	See Note 9.
Amounts reclassified	$ (2)	$ (2)	$ (1)	

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

Note 8 — Fair Value Measurement

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants in the principal or most advantageous market for the asset or liability.

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

Estimating the fair value of the Association's equity investments in the Bank and other System 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
Assets held in trust funds related to deferred compensation plans are classified as Level 1. The trust funds include investments in securities that are actively traded and have quoted net asset value prices that are directly observable in the marketplace.

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

Level 2
The Association has no Level 2 assets or 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) that 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.

OPO 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 OPO. OPO 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, the FCA regulations require that these types of properties 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.

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

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:					
Assets held in trust funds	$ 601	$ 601	$ –	$ –	$ 601
Recurring Assets	$ 601	$ 601	$ –	$ –	$ 601
Liabilities:					
Recurring Liabilities	$ –	$ –	$ –	$ –	$ –
Nonrecurring Measurements					
Assets:					
Impaired loans	$ 39	$ –	$ –	$ 39	$ 39
Other property owned	76	–	–	86	86
Nonrecurring Assets	$ 115	$ –	$ –	$ 125	$ 125
Other Financial Instruments					
Assets:					
Cash	$ 83	$ 83	$ –	$ –	$ 83
Loans	1,931,814	–	–	1,904,355	1,904,355
Other Financial Assets	$ 1,931,897	$ 83	$ –	$ 1,904,355	$ 1,904,438
Liabilities:					
Notes payable to AgFirst Farm Credit Bank	$ 1,557,913	$ –	$ –	$ 1,541,821	$ 1,541,821
Other Financial Liabilities	$ 1,557,913	$ –	$ –	$ 1,541,821	$ 1,541,821

	December 31, 2017				
	Total Carrying Amount	Level 1	Level 2	Level 3	Total Fair Value
Recurring Measurements					
Assets:					
Assets held in trust funds	$ 722	$ 722	$ –	$ –	$ 722
Recurring Assets	$ 722	$ 722	$ –	$ –	$ 722
Liabilities:					
Recurring Liabilities	$ –	$ –	$ –	$ –	$ –
Nonrecurring Measurements					
Assets:					
Impaired loans	$ 1,851	$ –	$ –	$ 1,851	$ 1,851
Other property owned	26	–	–	29	29
Nonrecurring Assets	$ 1,877	$ –	$ –	$ 1,880	$ 1,880
Other Financial Instruments					
Assets:					
Cash	$ 16	$ 16	$ –	$ –	$ 16
Investments in debt securities, held-to-maturity	2,205	–	–	2,371	2,371
Loans	1,837,408	–	–	1,825,991	1,825,991
Other Financial Assets	$ 1,839,629	$ 16	$ –	$ 1,828,362	$ 1,828,378
Liabilities:					
Notes payable to AgFirst Farm Credit Bank	$ 1,487,719	$ –	$ –	$ 1,478,128	$ 1,478,128
Other Financial Liabilities	$ 1,487,719	$ –	$ –	$ 1,478,128	$ 1,478,128

	December 31, 2016				
	Total Carrying Amount	Level 1	Level 2	Level 3	Total Fair Value
Recurring Measurements					
Assets:					
Assets held in trust funds	$ 577	$ 577	$ –	$ –	$ 577
Recurring Assets	$ 577	$ 577	$ –	$ –	$ 577
Liabilities:					
Recurring Liabilities	$ –	$ –	$ –	$ –	$ –
Nonrecurring Measurements					
Assets:					
Impaired loans	$ 2,684	$ –	$ –	$ 2,684	$ 2,684
Other property owned	79	–	–	92	92
Nonrecurring Assets	$ 2,763	$ –	$ –	$ 2,776	$ 2,776
Other Financial Instruments					
Assets:					
Cash	$ 43	$ 43	$ –	$ –	$ 43
Investments in debt securities, held-to-maturity	2,243	–	–	2,336	2,336
Loans	1,787,805	–	–	1,776,093	1,776,093
Other Financial Assets	$ 1,790,091	$ 43	$ –	$ 1,778,429	$ 1,778,472
Liabilities:					
Notes payable to AgFirst Farm Credit Bank	$ 1,464,915	$ –	$ –	$ 1,454,327	$ 1,454,327
Other Financial Liabilities	$ 1,464,915	$ –	$ –	$ 1,454,327	$ 1,454,327

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	$	125	Appraisal	Income and expense	*
				Comparable sales	*
				Replacement costs	*
				Comparability adjustments	*

** 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
Investments in debt securities, held-to-maturity	Discounted cash flow	Prepayment rates Risk adjusted discount rate
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 multiemployer defined benefit pension plan, the AgFirst Farm Credit Retirement Plan, which is a final average pay plan (FAP Plan). In addition, the Association participates in a multiemployer 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 multiemployer plans are different from single-employer plans in the following aspects.

1. Assets contributed to multiemployer plans by one employer may be used to provide benefits to employees of other participating employers.
2. If a participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
3. If the Association chooses to stop participating in some of its multiemployer 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 the Employee Retirement Income Security Act (ERISA) and Form 5500 is not 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 FAP Plan covers employees hired prior to January 1, 2003 and includes other District employees who 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. FAP Plan expenses included in employee benefit costs on the Association's Statements of Income were $2,450 for 2018, $2,254 for 2017 and $3,049 for 2016. At December 31, 2018, 2017 and 2016, the total liability balance for the FAP Plan presented in the District Combined Balance Sheets is $94,491, $139,104, and $119,000, respectively. The FAP Plan is 89.56 percent, 86.41 percent, and 86.96 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 age of 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 System employees who 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 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 $412 for 2018, $356 for 2017 and $648 for 2016. At December 31, 2018, the total AgFirst District liability balance for the OPEB Plan presented in the System Combined Statement of Condition is $181,820.

During 2017, the method of recording expenses at participating District entities for the FAP 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 $1,533 and the reduction of Other Liabilities by $6,359 on the Association's Balance Sheets, and a total reduction of noninterest expenses on the Association's Statements of Income of $4,826 during 2017.

The Association also participates in a defined contribution Farm Credit Benefits Alliance 401(k) Plan (401(k) Plan), which qualifies as a 401(k) Plan as defined by the Internal Revenue Code. For employees hired on or prior to December 31, 2002, the Association contributes $0.50 for each $1.00 of the employee's first six percent of contribution (based on total compensation) up to the maximum employer contribution of three percent of total compensation. For employees hired on or after January 1, 2003, the Association contributes $1.00 for each $1.00 of the employee's first six percent of contribution up to the maximum employer contribution of six percent of total compensation. Employee deferrals are not to exceed the maximum deferral as determined and adjusted by the IRS. The 401(k) Plan costs are expensed as funded. Employer contributions to this Plan included in salaries and employee benefit costs were $958, $881 and $817 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, 2002.

FASB guidance further requires the determination of the fair value of plan assets and recognition of actuarial gains and losses, prior service costs or credits and transition assets or obligations as a component of AOCI. Under the guidance, these amounts are subsequently recognized as components of net periodic benefit costs over time. For 2018, 2017 and 2016, $13, ($13) and ($5) respectively, have been recognized as a net credit and net debits to AOCI to reflect these elements.

In addition to the multiemployer plans described above, the Association sponsors nonqualified supplemental retirement and 401(k) plans. The supplemental retirement plan is unfunded and had a projected benefit obligation of $229 and a net under-funded status of $229 at December 31, 2018. Assumptions used to determine the projected benefit obligation as of December 31, 2018 included a discount rate of 4.40 percent. The expenses of these nonqualified plans included in noninterest expenses were $16, $19 and $20 for 2018, 2017 and 2016, respectively.

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 $13,349. During 2018, $8,545 of new loans were made and repayments totaled $7,477. 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, there were no commercial letters of credit outstanding, but there were $424,154 of commitments to extend credit outstanding with a related reserve for unfunded commitments of $646 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 $8,695 with expiration dates ranging from January 1, 2019 to August 29, 2022. The maximum potential amount of future payments that may be required under these guarantees was $8,695.

Note 12 — Income Taxes

The provision (benefit) for income taxes follows.

	Year Ended December 31,		
	2018	2017	2016
Current:			
Federal	$ 173	$ 252	$ (72)
	173	252	(72)
Deferred:			
Federal	–	–	–
	–	–	–
Total provision (benefit) for income taxes	$ 173	$ 252	$ (72)

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

	Year Ended December 31,		
	2018	2017	2016
Federal tax at statutory rate	$ 11,015	$ 19,371	$ 14,273
Patronage distributions	(5,397)	(7,438)	(6,720)
Tax-exempt FLCA earnings	(5,465)	(10,777)	(8,104)
Change in valuation allowance	163	(1,404)	551
Adjustment for lower statutory rate	–	336	–
Other	(143)	164	(72)
Provision (benefit) for income taxes	$ 173	$ 252	$ (72)

In late December 2017, 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 2017, the period of enactment. Deferred tax assets and liabilities are comprised of the following.

	December 31,		
	2018	2017	2016
Deferred income tax assets:			
Allowance for loan losses	$ 1,457	$ 1,419	$ 2,253
Nonaccrual loan interest	427	392	801
Net operating loss – carryforward	860	833	1,777
Gross deferred tax assets	2,744	2,644	4,831
Less: valuation allowance	(667)	(504)	(1,908)
Gross deferred tax assets, net of valuation allowance	2,077	2,140	2,923
Deferred income tax liabilities:			
Bank patronage allocation	(1,684)	(1,820)	(2,431)
Loan origination fees	(308)	(233)	(340)
Depreciation	(85)	(87)	(152)
Gross deferred tax liability	(2,077)	(2,140)	(2,923)
Net deferred tax asset (liability)	$ –	$ –	$ –

At December 31, 2018, deferred income taxes have not been provided by the Association on approximately $9,400 of patronage refunds received from the Bank prior to January 1, 1993. Such refunds, distributed in the form of stock, are subject to tax only upon conversion to cash. The tax liability related to future conversions is not expected to be material.

The Association recorded a valuation allowance of $667, $504 and $1,908 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 the Association has no unrecognized tax benefits at December 31, 2018 for which liabilities have been established. The Association recognizes interest and penalties 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	$ 12,745	$ 12,875	$ 13,357	$ 13,306	$ 52,283
Provision for (reversal of allowance for) loan losses	(180)	498	502	359	1,179
Noninterest income (expense), net	(2,065)	(3,152)	(3,187)	9,580	1,176
Net income	$ 10,860	$ 9,225	$ 9,668	$ 22,527	$ 52,280

	2017				
	First	Second	Third	Fourth	Total
Net interest income	$ 12,054	$ 12,049	$ 12,370	$ 13,179	$ 49,652
Provision for (reversal of allowance for) loan losses	389	336	172	810	1,707
Noninterest income (expense), net	(3,145)	(2,938)	(2,763)	15,997	7,151
Net income	$ 8,520	$ 8,775	$ 9,435	$ 28,366	$ 55,096

	2016				
	First	Second	Third	Fourth	Total
Net interest income	$ 11,539	$ 11,692	$ 11,619	$ 11,830	$ 46,680
Provision for (reversal of allowance for) loan losses	891	286	246	449	1,872
Noninterest income (expense), net	(2,918)	(3,545)	(3,323)	5,831	(3,955)
Net income	$ 7,730	$ 7,861	$ 8,050	$ 17,212	$ 40,853

Note 14 — Subsequent Events

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

On January 31, 2019, the Board of Directors approved the payment of cash patronage refunds to customers of $32,600. This was an increase of $6,900 from the estimated cash patronage refund of $25,700 accrued at December 31, 2018.

BRANCH OFFICE LISTINGS

★ **AGCHOICE HEADQUARTERS**
300 Winding Creek Boulevard
Mechanicsburg, PA 17050
Phone: (800) 349-3568
Fax: (717) 796-9830

1 **MEADVILLE**
11555 State Highway 98
Meadville, PA 16335
Phone: (814) 336-3149
(800) 927-3149
Fax: (814) 333-8890
Territory: Crawford, Erie, Forest, Mercer, Venango and Warren counties

2 **COUDERSPORT**
1 Buffalo Street, Suite 3
Coudersport, PA 16915
Phone: (814) 274-9425
(800) 327-6878
Fax: (814) 274-0438
Territory: Cameron, Elk, McKean and Potter counties

3 **ENDLESS MOUNTAINS**
24668 Route 6
Towanda, PA 18848
Phone: (570) 265-8161
(800) 277-6234
Fax: (570) 265-4572
Territory: Bradford, Lackawanna, Sullivan, Susquehanna, Tioga, Wayne and Wyoming counties

4 **BUTLER**
610 Evans City Road
Butler, PA 16001
Phone: (724) 482-2173
(800) 829-0056
Fax: (724) 482-4201
Territory: Armstrong, Beaver, Butler, Clarion, Jefferson, Indiana and Lawrence counties

5 **SEVEN MOUNTAINS**
45 Sheetz Drive
Reedsville, PA 17084
Phone: (717) 248-7331
(800) 278-3469
Fax: (717) 248-2625
Territory: Centre, Clearfield, Juniata, Mifflin and Perry counties

6 **SUSQUEHANNA VALLEY**
450 International Drive
Lewisburg, PA 17837-605
Phone: (570) 524-2204
(800) 223-3276
Fax: (570) 524-2022
Territory: Clinton, Columbia, Luzerne, Lycoming, Montour, Northumberland, Snyder and Union counties

7 **NEW STANTON**
921 S. Center Avenue
Hunker, PA 15639
Phone: (724) 696-3276
(800) 487-4135
Fax: (724) 696-4526
Territory: Allegheny, Fayette, Greene, Washington and Westmoreland counties in Pennsylvania and Brooke, Hancock, Marshall and Ohio counties in West Virginia

8 **MARTINSBURG**
2322 Curryville Road
Martinsburg, PA 16662
Phone: (814) 793-3783
(800) 733-3183
Fax: (814) 793-3040
Territory: Bedford, Blair, Cambria, Huntingdon and Somerset counties

9 **CUMBERLAND VALLEY**
109 Farm Credit Drive
Chambersburg, PA 17202
Phone: (717) 263-3315
(800) 554-9055
Fax: (717) 263-1568
Territory: Cumberland, Franklin and Fulton counties

10 **YORK OFFICE**
1434 Seven Valleys Road
York, PA 17408
Phone: (717) 792-2641
(800) 822-1218
Fax: (717) 792-1499
Territory: Adams and York counties

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