FARM CREDIT CHARTING the COURSE



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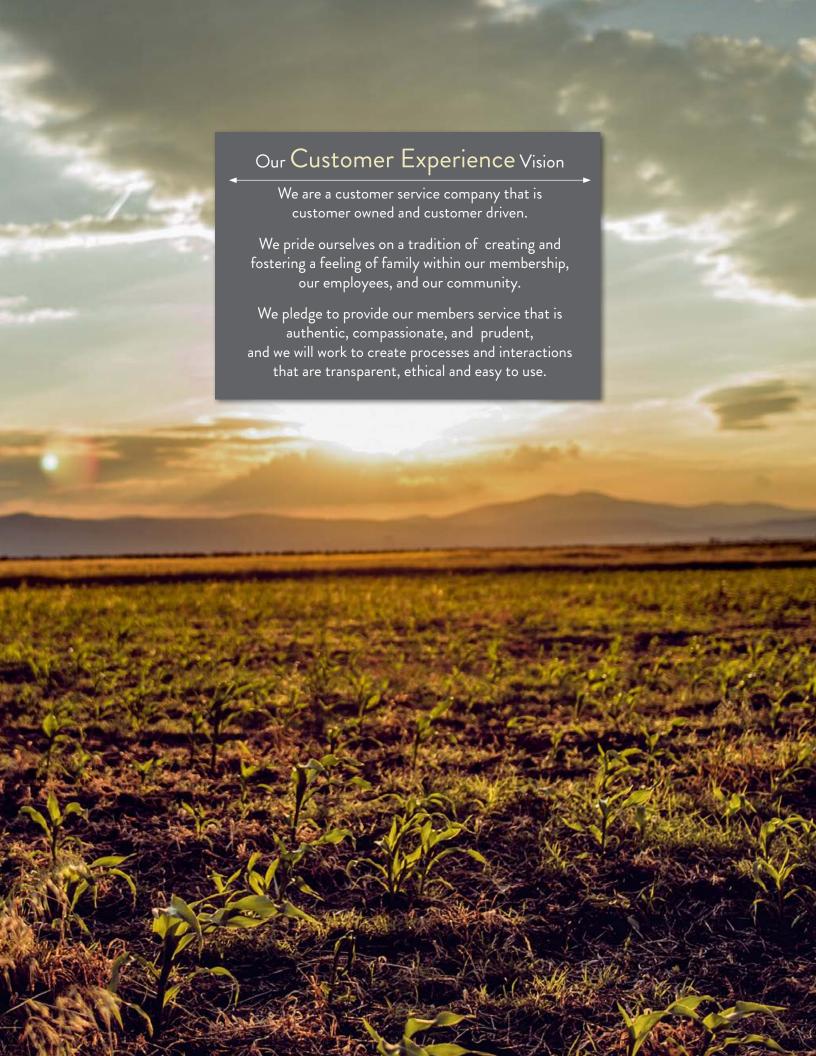
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Executive Leadership Team

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CHARTING the COURSE

As I began to think about writing this message, I asked a few of our members and fellow Farm Credit colleagues how they would describe 2018. Some of them recounted stories of successful new ventures, while others mentioned the struggles the unprecedented amount of rain many across our area (and country) experienced. Regardless of what we discussed during this conversation, one word was mentioned repeatedly: challenging.

Challenges come in various forms, and this past year our industry came up against many, including unpredictable weather patterns, new technological advancements, and turbulent market conditions - just to name a few. They each brought about discussion, educational opportunities, and the chance to support those across our footprint in different ways. We expanded our knowledge and flexed the most important part of our mission statement - being there in good times and bad.

Those challenges we faced yesterday are still lingering, and though we can look at market trends and make educated guesses as to what lies ahead, none of us can know for sure. However, what we can do is take what we've learned and adapt, adjust our sails, and embrace the resiliency of our industry.



Agriculture continues to evolve, and we must do so with it. Whether it's with our boots on the ground or a drone in the sky, Farm Credit - together with our members and industry supporters – can set the tone for our future. What we do today will determine how we will handle future challenges (which has always proudly been, and will continue to be, head-on with determination and grit).

Farm Credit is committed to working with you and all who make up

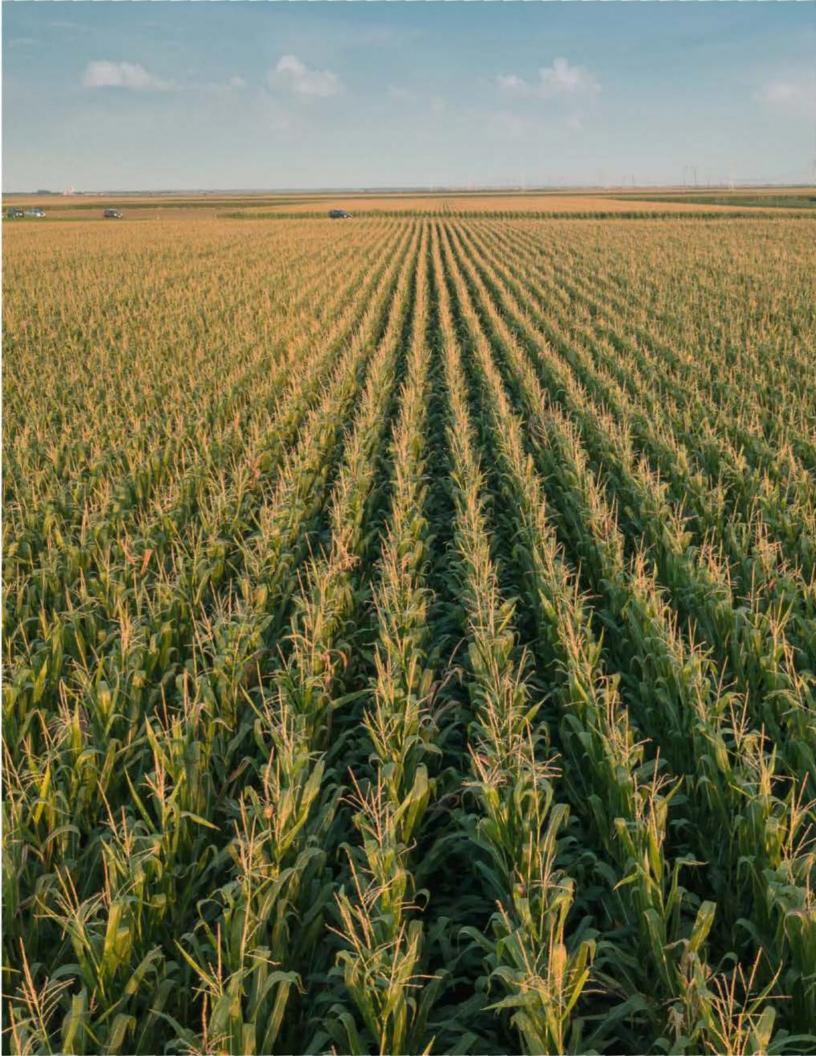
America's agriculture industry to chart a new course for the future. You, your families, and your operations are what make Farm Credit so great, and why we don't take our business decisions lightly. Because of that, I am confident in our strong financial position, which allowed us to declare a record patronage distribution in 2018 of \$40.7 million.

We are proud to be able to show our association's unwavering support of our membership and local communities today, tomorrow, and decades from now.

Thank you for choosing MidAtlantic Farm Credit to be your trusted financial partner. We look forward to working with you in 2019 and beyond.

cutive Officer

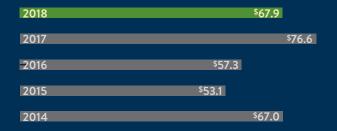
What we can do is take what we've learned and adapt, adjust our sails, and embrace the resiliency of our industry.



FINANCIAL HIGHLIGHTS

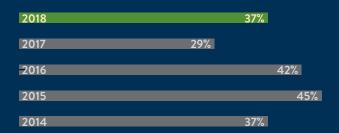
NET INCOME

\$67.9 million



OPERATING EXPENSES

as a Percentage of Net Interest and Non-Interest Income



NET LOANS

\$2,773 million

2018	\$2,773
2017	^{\$} 2,691
2016	^{\$} 2,583
2015	^{\$} 2,432
2014	\$2,252

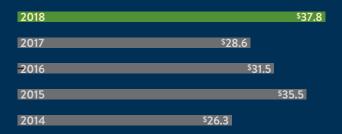
MEMBERS' EQUITY

\$635.0 million

2018	\$635.0
2017	\$607.4
2016	\$568.5
2015	\$539.7
2014	\$518.0

MEMBER CASH DISTRIBUTIONS

\$37.8 million



ACCEPTABLE CREDIT QUALITY

96.9%

2018	96.9%
2017	98.1%
2016	98.2%
2015	97.8%
2014	96.9%

CONSOLIDATED FIVE-YEAR SUMMARY OF

SELECTED FINANCIAL DATA

(dollars in thousands)	2018		2017	Dece	mber 31, 2016		2015		2014
Balance Sheet Data Cash Loans	\$ 4,376 2,803,479	\$ 2	4,690 ,717,226	\$	3,894 ,607,353	\$ 2	6,578 2,456,577	\$ 2	2,615 ,276,982
Allowance for loan losses	(30,090)	2	(25,949)	2	(24,377)	2	(24,780)	2	(24,954)
Net loans Equity investments in other Farm Credit institutions	2,773,389 32,074	2	,691,277 31,277	2	,582,976 29,172	2	27,067	2	,252,028 26,271
Other property owned Other assets	622 71,419		240 70,010		729 59,954		290 58,959		844 66,050
Total assets	\$ 2,881,880	\$2	,797,494	\$2	,676,725	\$2	,524,691	\$2	,347,808
Notes payable to AgFirst Farm Credit Bank* Accrued interest payable and other liabilities	\$ 2,181,496	\$2	,121,161	\$2	,040,901	\$1	,914,310	\$1	,760,410
with maturities of less than one year	65,434		68,972		67,294		70,674		69,371
Total liabilities	2,246,930	2	,190,133	2	,108,195	1	,984,984	1	,829,781
Capital stock and participation certificates Retained earnings	10,744		10,550		10,264		9,950		9,743
Allocated Unallocated Accumulated other comprehensive income (loss)	388,255 236,149 (198)		365,603 231,530 (322)		332,358 226,148 (240)		309,030 221,238 (511)		292,021 216,797 (534)
Total members' equity	634,950		607,361		568,530		· · · · · · · · · · · · · · · · · · ·		518,027
Total liabilities and members' equity	\$ 2,881,880	\$2	,797,494	\$2	,676,725	\$2	,524,691	-	
Statement of Income Data Net interest income Provision for (reversal of allowance for) loan losses Noninterest income (expense), net	\$ 71,266 4,000 624	\$	69,479 2,000 9,088	\$	66,920 750 (8,824)	\$	65,205 (567) (12,698)	\$	67,835 125 (700)
Net income	\$ 67,890	\$	76,567	\$	57,346	\$	53,074	\$	67,010
Key Financial Ratios Rate of return on average: Total assets Total members' equity Net interest income as a percentage of average earning assets Net (chargeoffs) recoveries to average loans Total members' equity to total assets Debt to members' equity (:1) Allowance for loan losses to loans Permanent capital ratio Total surplus ratio Core surplus ratio Common equity tier 1 capital ratio Tier 1 capital ratio Total regulatory capital ratio Tier 1 leverage ratio Unallocated retained earnings (URE) and	2.43% 10.84% 2.59% 0.01% 22.03% 3.54 1.07% 20.26% ** ** 18.84% 21.09% 19.88%		2.82% 13.02% 2.60% (0.02)% 21.71% 3.61 0.95% 19.67% ** 18.55% 18.55% 20.44% 19.64%		2.23% 10.26% 2.65% (0.05)% 21.24% 3.71 0.93% 20.05% 19.71% 18.91% **		2.23% 9.88% 2.79% 0.02% 21.38% 3.68 1.01% 20.58% 20.23% 19.86% **		2.94% 13.18% 3.04% 0.05% 22.06% 3.53 1.10% 20.98% 20.61% **
URE equivalents leverage ratio Net Income Distribution Estimated patronage refunds: Cash Nonqualified allocated retained earnings Nonqualified retained earnings	\$ 19.39% 20,000 43,589	\$	17.89% 18,517 52,282	\$	12,595 — 39,885	\$	16,636 — 30,895	\$	15,000 10,856 34,982
1	- 7		,		,		,		,

^{*} 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.



COMMITTED to our COMMUNITIES

As a cooperative, Farm Credit is guided by seven principles, which are the driving force behind our values and culture. One of those principles is dedication to community service. MidAtlantic Farm Credit's community is uniquely large, spanning five states and serving a diverse member base. We're proud to support those who live and work in our territory, whether it's through volunteering, hosting a canned

food drive, or donating toward a cause we hold close to our hearts.

Each MidAtlantic Farm Credit employee receives eight hours of paid community service leave a year, which they are able to use to lend their time to an



organization of their choosing. Over the course of 2018, our employees logged 2,614 hours of community service - above and beyond the given eight hours received annually.

In addition to volunteer hours, MidAtlantic Farm Credit staff donated over \$6,000 to various local charities throughout 2018. These donations went directly to organizations our employees are involved with, making an impact

on our families, neighbors, and friends.

Farm Credit wouldn't be where it is today without the support of our local communities, and we love to give back. We are immensely proud of our staff for actively supporting the communities in which we live and work.

SOME of the ORGANIZATIONS

OUR STAFF VOLUNTEERED WITH AND DONATED TO INCLUDE:

4-H Therapeutic Riding of Carroll County 4-H Therapeutic Riding of Frederick County Alzheimer's Association Baltimore Animal Rescue and Care Shelter Bel Air Rotary Foundation Big Brothers Big Sisters of Berks County Blue Ridge Habitat for Humanity Blue Ridge Food Bank Children's Cancer Research Fund Choptank Ruritan Club Community Crisis Center, Inc. Capital Ringers, Inc. Darlington Lions Charities Delaware 4-H Foundation

Delaware FFA Foundation

Delaware Agricultural Museum Dust Devil Ranch, Sanctuary for Horses Food Bank of Delaware, Inc. Food Bank of SE Virginia & Eastern Shore Frederick County Farm Bureau Hamburg Ruritan Club Habitat for Humanity - Frederick-Clarke, Inc. Just In Power Kids, Inc. Lebanon Community Theatre Maryland FFA Foundation Mennonite Disaster Services Modern Maturity Center National Collegiate Cancer Foundation National Multiple Sclerosis Society

Olivia's House Pleasant Valley Community Fire Company, Inc. Puppy Paws Rescue Sandymount Elementary PTA Saving Grace Animal Rescue of Maryland Shenandoah Valley Runners Smyrna FFA Alumni St. Agnes Hospital Foundation St. Jude's Children's Research Hospital The Westminster Municipal Band, Inc. Walkersville Rescue Company, Inc. Water Street Rescue Mission Westminster Rescue Mission Westminster Road Runners Club Wreaths Across America



Farm Credit Foundation for $\mathsf{AGRICULTURAL}$ $\mathsf{ADVANCEMENT}$

Created in 2015 by MidAtlantic Farm Credit, the Farm Credit Foundation for Agricultural Advancement's mission is to help those with a passion for working in the agriculture industry achieve their dream. The Foundation was formed with an initial \$3 million endowment, as voted on by the MidAtlantic board of directors, as part of the Farm Credit System's centennial celebration in 2016.



The Farm Credit Foundation for Agricultural Advancement's **BOARD OF DIRECTORS**

Top row (left to right): Tony III, Karl Binns, Cheryl Steinbacher Bottom row (left to right): John Wheeler, Dale Hershey, Walter Hopkins In 2018, the Foundation also awarded a total of \$12,500 to five agriculture educators who are pursuing a secondary degree, with the goal of furthering their education. Teachers are the backbone of our education system, and are often the source of inspiration for our youth. We were honored to provide assistance to these five educators as they work to expand their knowledge, and help their students continue to thrive.

Since its inception, the Foundation has awarded \$200,000 in scholarships to students located within MidAtlantic's territory pursuing a career in agriculture. These students are majoring in a variety of fields, from veterinary medicine to plant genetics, but they all have the same goal of making an impact on our industry.

The Foundation is a wholly separate organization from MidAtlantic Farm Credit, and is governed by six board members (pictured above). The Foundation board meets throughout the year to discuss the Foundation's mission, scholarship program, and its long term vision for supporting the advancement of agriculture.

For more information, please visit FCFoundationForAg.org.

2018 SCHOLARSHIP WINNERS

Seth Bollinger Ephrata, Pennsylvania

Henry Brunnett Westminster, Maryland Cullen Dixon Frackville, Pennsylvania

Tyson Franklin Wilmington, Delaware

Ellie Grossnickle Mysersville, Maryland Hannah Jo Bear, Delaware

Timothy Mulderrig Middletown, Delaware

Justin Petrie Stephens City, Virginia Sarah Rassler New Tripoli, Pennsylvania

Kelcey Trewin Freeland, Maryland



REPORT of MANAGEMENT

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

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

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

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

Chairman of the Board

Truitt, Jr. utive Officer

in Reseti Chief Financial Officer

March 13, 2019

REPORTON

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.

Thomas H. Truitt, Jr. Chief Executive Officer

Chief Financial Officer

March 13, 2019

MANAGEMENT'S DISCUSSION AND ANALYSIS OF

FINANCIAL CONDITION and RESULTS of OPERATIONS

(dollars in thousands, except as noted)

GENERAL OVERVIEW

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

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

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

The Association obtains funding from AgFirst Farm Credit Bank (AgFirst or Bank). The Association is materially affected and shareholder investment in the Association may be materially affected by the financial condition and results of operations of the Bank. Copies of the Bank's Annual and Quarterly Reports are available 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

Copies of the Association's Annual and Quarterly reports are also available upon request free of charge on the Association's website, www.mafc.com, or by calling 1-888-339-3334, or writing Brian E. Rosati, Chief Financial Officer, MidAtlantic

Farm Credit, ACA, 45 Aileron Court, Westminster, MD, 21157-3022. The Association prepares an electronic version of the Annual Report, which is available on the website, within 75 days after the end of the fiscal year and distributes the Annual Reports to shareholders within 90 days after the end of the fiscal year. The Association prepares an electronic version of the Quarterly report, which is available on the internet, within 40 days after the end of each fiscal quarter, except that no report needs to be prepared for the fiscal quarter that coincides with the end of the fiscal year of the Association.

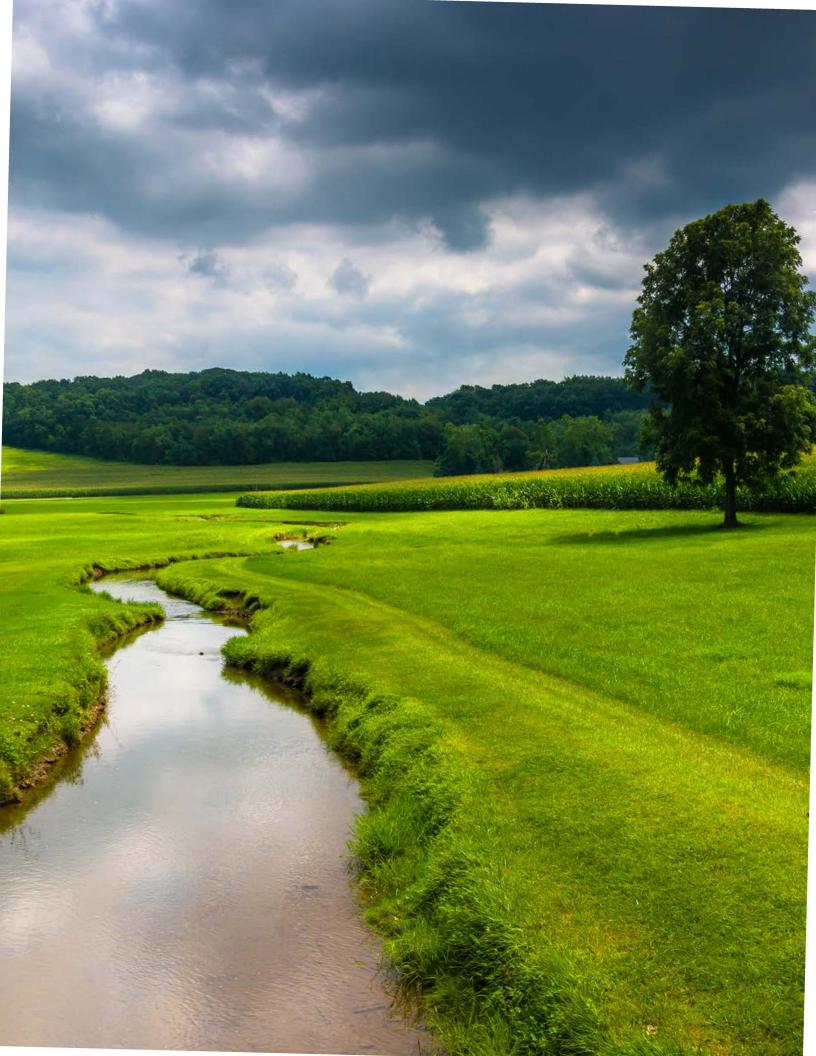
FORWARD LOOKING INFORMATION

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

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

AGRICULTURAL OUTLOOK

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



Production agriculture is a cyclical business that is heavily influenced by commodity prices, weather, tax and trade policies, interest rates and various other factors. From 2010 through 2014, the U.S. farm sector generally experienced favorable economic conditions driven by high commodity and livestock prices and increasing farmland values. This generally fostered improved financial strength across the farm sector, with farmer working capital peaking in 2012. Working capital is defined as the amount of cash and cash convertible assets minus liabilities due to creditors within 12 months. However, since 2014, the agricultural environment has been more challenging. Currency fluctuations, large inventories and current U.S. trade policies, including the retaliatory action by other countries, have begun to adversely impact demand and prices for agricultural exports, which have reduced net farm income (a broad measure of profits) and eroded farmer working capital. Higher interest rates could exacerbate the reduction in net farm income by increasing interest expense for farmers with floating-rate loans or other liabilities that reprice periodically to current market interest rates. The following table illustrates USDA data on net farm income and farmer working capital:

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

^{*}Forecasted

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

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

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

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

available data), as compared with 40.9 percent at December 31, 2016.

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

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

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

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

CRITICAL ACCOUNTING POLICIES

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

• Allowance for loan losses — The allowance for loan losses is maintained at a level considered adequate by management to provide for probable and estimable losses inherent in the loan portfolio. The allowance for loan losses is increased through provisions for loan losses and loan recoveries and is decreased through allowance reversals and loan charge-offs. The allowance for loan losses is determined based on a periodic evaluation of the loan portfolio by management in which numerous factors are considered, including economic and political conditions, loan portfolio composition, credit quality and prior loan loss experience.

Significant individual loans are evaluated based on the borrower's overall financial condition, resources, and payment record, the prospects for support from any financially responsible guarantor, and, if appropriate, the estimated net realizable value of any collateral. The allowance for loan losses encompasses various judgments. evaluations and appraisals with respect to the loans and their underlying security that, by nature, contains elements of uncertainty and imprecision. Changes in the agricultural economy and their borrower repayment capacity will cause these various judgments, evaluations and appraisals to change over time. Accordingly, actual circumstances could vary widely from the Association's expectations and predictions of those circumstances.

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

• 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, which could have material positive or negative effects on the Association's results of operations.

ECONOMIC CONDITIONS

Generally, the Mid-Atlantic States are performing reasonably well economically, but not spectacularly. During the past year, Virginia ranked 17th at 1.8 percent, Pennsylvania ranked 27th at 1.5 percent, Maryland ranked 29th at 1.4 percent, Delaware ranked 41st at 1.1 percent and West Virginia ranked 45th at 0.9 percent in the latest twelve month employment growth.

In the rural areas where most of our stockholders live and have their operations, unemployment tends to be higher than in urban areas. Most recent data indicates that the unemployment rates in our states of operation are in line or slightly below the national average. Recent indications are that rural economies will sustain momentum heading into 2019, but have challenges ahead. Maryland has shown consistent growth over the past 5 years, and is expecting continued job growth as a result of a number of large-scale developable sites which is attracting large-scale investment and more jobs. Other areas of the Association's territory have not seen the same level of growth. For example, Delaware is hamstrung by the weak economic performance of Wilmington, its largest city. Pennsylvania economy continues to be driven by strong performance in the very vibrant Philadelphia metropolitan area, but low commodity prices have suppressed growth in much of the state. Agricultural output growth is not believed to be a major contributor to the improvement as prices since 2012 for all commodities in the Association's territory have fallen or remained flat.

There are many factors which have likely contributed to these depressed prices including improved yields, the rising dollar, decreased exports, increased tariffs, and competition from foreign large agricultural producers. While the strong dollar has certain economic benefits relative to imported goods, it has the negative effect on U.S. output making exports more expensive to foreign buyers. The currency appreciation results in less foreign demand of U.S. production with foreign buyers looking to alternatives in their own country or to the output of other countries with weaker currencies. The political dilemma surrounding China trade issues and tariffs have also contributed to uncertainty.

Looking ahead to 2019, we are seeing a strengthening of energy prices, which can have a modest adverse impact on our borrowers and on consumers' buying power. Projections of wage gains coupled with continued relatively low interest rates are expected to be a positive contributor to economic growth. The impact of the recently enacted tax cuts and stimulus could have a favorable impact on the agricultural sector in our region.

Overall, 2019 is generally forecasted to be a year marked with moderate economic growth, continued low commodity prices and modest interest rate increases, and greater dependence on the role of the consumer in driving economic growth. Final policy decisions in Washington on various issues remain somewhat of an unknown regarding the ultimate impact on 2019 performance.

Despite the overall economic challenge, 2018 was a solid year for farmers in our region, but there are signs of potential economic challenges heading into 2019. Acceptable credit quality had a slight decrease compared to the prior year, but continued to be around an all-time high, crop yields varied considerably by geography and commodity, but were roughly in line with historical results offset by continued low prices,

and poultry farmers saw demand decline for new poultry barn housing throughout the year.

The forecasted stability of the U.S. economy suggests that the demand for value-added agricultural products will continue to be sustained in 2019. This increasing consumer preference for local, fresh products support the Association's efforts related to targeting this audience.

A significant number of our borrowers or family members involved in the farming operation are actively employed in offfarm professions. The Association's geographic proximity to the Nation's Capital results in sizable employment in the region supported by federal government related spending.

Generally, available credit to farmers and related businesses has been quite adequate with some commercial banks reentering or continuing to expand their market presence in the agricultural sector after having abruptly curtailed or exited the industry following the 2008 financial collapse. The number of active borrowers has increased slightly from 11,467 at the end of 2017 to 11,576 at the end of 2018. A seasoned, knowledgeable lending staff enhanced with recent newly hired staff, and the inherent value of patronage paid under the cooperative structure have positioned the Association to compete effectively for this expanded business opportunity to serve the financing needs for agriculture in the Association's territory, while retaining current members and their business relationships.

For the year ended December 31, 2018, the credit quality of the loan portfolio remained strong as Acceptable Loans including Other Assets Especially Mentioned (OAEM) was almost 97 percent of the portfolio. During 2018, nonperforming assets as a percentage of total loans increased over 49 percent, and increased over 47 percent as a percentage of capital. The Loan Loss Provision for 2018, 2017 and 2016 of \$4,000, \$2,000 and \$750, although has been increasing, still reflect the strength of the quality of the portfolio. The increase during 2018 was mainly due to an increase in loan volume and some deterioration on accounts, within the portfolio that spreads across all three of our largest commodity groups. Stable fuel costs have continued to favorably impact most sectors of the portfolio. While lower grain prices have been somewhat unfavorable to this sector, high yields have generally helped to mitigate any adverse impact up until this year, which has seen more average yields. Conversely, lower grain prices are generally quite favorable for the protein sector. Industries tied to housing such as forestry, sawmills, sod, and landscape nurseries have continued to see some improvement but have continued to experience reduced demand and pre-recession profitability has continued to be somewhat compromised. Over time, the higher inputs are expected to ultimately either be passed on to the consumer or production will be cut to ensure that the supply produced will clear the market at prices that will generate an acceptable profit.

Some of the sectors of the Association's portfolio which have some reliance on off-farm income have continued to be challenged. In addition, some of the borrowers classified as loan type rural residential real estate, which are principally rural home loans, have also been negatively impacted by the economy which has put some pressure on this segment of the portfolio. While the credit quality of the Association loan portfolio is strong, there certainly remains the potential risk of future deterioration by the factors mentioned above, as well as

what impact the Administration in Washington might have on the areas impacting the Association. As mentioned above, lower demand for poultry housing by integrators could also affect loan quality for that industry. In addition, the Association's poultry farmers are also potentially susceptive to the effects of avian influenza on their flocks which could cause some financial stress to these operators and, accordingly, to their loans with the Association. Significant preparatory measures have been taken; to date, no reports of the virus have been reported in the Association's territory. The dairy sector has experienced lower prices for three straight years and, accordingly, the Association could realize some deterioration in this portion of the portfolio.

During 2018, the Association continued to target certain areas of our business with the goal of increasing market share. As in 2017, in 2018 the Association continued expansion of its farm equipment financing program which provides an efficient electronic loan application process for farm equipment financing. The success of this program has been further realized with members who joined the Association with an equipment loan expanding their borrowing needs with a mortgage or operating loan. At the end of 2018, the Association was providing this service on a per transaction fee basis for eighteen associations in the AgFirst District. During 2018, almost five thousand notes were closed by our "Farm Credit EXPRESS" team for over \$198 million, including over \$40 million of loans booked to the Association. During 2018, there were over two thousand eight hundred new members to the Farm Credit System as a result of the Farm Credit **EXPRESS** program. Continued efforts are being made to expand services, increase public knowledge of our services and streamline our current delivery of products to enhance our existing portfolio. In late 2017, Farm Credit EXPRESS also introduced an equipment leasing program which provides an additional option to borrowers. The leasing program included over \$1 million of loans booked to the Association.

LOAN PORTFOLIO

The Association provides funds to farmers, rural homeowners, and farm-related businesses for financing of short and intermediate term loans and long-term real estate mortgage loans through numerous product types. The diversification of Association loan volume by type for each of the past three years is shown below.

	December 31,								
Loan Type	2018		201	2017			2016		
			(dollars in th	ousands)					
Real estate mortgage	\$ 1,740,841	62.10%	\$ 1,660,982	61.14%	\$	1,577,039	60.49%		
Production and intermediate term	805,435	28.73	808,479	29.75		807,630	30.98		
Farm-related business	69,057	2.46	66,050	2.43		63,636	2.44		
Processing and marketing	66,795	2.38	54,996	2.02		48,841	1.87		
Communication	52,853	1.89	56,951	2.10		57,697	2.21		
Rural residential real estate	44,339	1.58	40,008	1.47		34,476	1.32		
Loans to cooperatives	20,502	0.73	25,598	0.94		13,362	0.51		
Power and water/waste disposal	3,657	0.13	4,162	0.15		4,672	0.18		
Total	\$ 2,803,479	100.00%	\$ 2,717,226	100.00%	\$	2,607,353	100.00%		

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

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

	December 31,						
Region	2018	2017	2016				
Delmarva	39%	41%	40%				
Penn	22	22	21				
MidMaryland	20	20	21				
Valley	8	8	9				
Corporate	11	9	9				
Total	100%	100%	100%				

Corporate includes the Association's participation loans purchased as well as all nonaccruing loans.

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

The major commodities in the Association loan portfolio are shown below. The predominant commodities are cash grain/crops, poultry, dairy, and landlords/lessors of real estate, which together constitute 63 percent of the entire portfolio.

	December 31,								
Commodity Group		2018			2017			2016	5
		(dollars in thousands)							
Cash Grain/Crops	\$	656,631	23%	\$	650,008	24%	\$	649,695	26%
Poultry		613,909	22		595,278	22		544,153	21
Dairy		251,557	9		268,019	10		256,719	10
Landlords/Lessors of Real Estate		246,266	9		226,264	8		218,905	8
Livestock/Animal Specialties		200,090	7		166,462	6		154,076	6
Fruits & Vegetables		189,347	7		181,964	7		167,182	6
Equine		183,839	7		183,222	7		182,834	7
Nurseries/Greenhouses		83,922	3		87,115	3		87,998	3
Timber/Forestry		76,834	3		71,491	3		80,564	3
Other		301,084	10		287,403	10		265,227	10
Total	\$	2,803,479	100%	\$	2,717,226	100%	\$	2,607,353	100%

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 is well diversified from both a commodity and number of producers perspective. Further, many of the Association's members are diversified within their enterprise which also reduces overall risk exposure. Demand for poultry, milk and prices of field grains are some of the factors affecting the price of these commodities. While the Association has continued to experience demand for large loans over the past several years, the agricultural enterprise mix of these loans is diversified and similar to that of the overall portfolio. The risk in the portfolio associated with commodity concentration and large loans is reduced by the range of diversity of enterprises in the Association's territory.

The average daily balance in gross loan volume for twelve months ended December 31, 2018, continues to be well diversified with no significant industry or producer concentration.

During 2018, the Association continued its activity in the buying and selling of loan participations within the Farm Credit System (FCS) as well as external to the FCS. This program provides an important vehicle to the Association by enabling it to further spread credit risk and enhance portfolio diversification while also affording an opportunity of strengthening its capital position through the generation of interest and fee income.

Loan Participations purchased and sold from other FCS institutions are summarized as follows:

	 December 31,						
Loan Participations	 2018	2017	2016				
	(dollars in thousands)						
Participations Purchased	\$ 218,331	\$ 230,266	\$ 235,240				
Participations Sold	(67,926)	(62,881)	(53,383)				
Total	\$ 150,405	\$ 167,385	\$ 181,857				

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 periods ended December 31, 2018, 2017 and 2016, the Association originated loans for resale totaling \$47,925, \$58,689 and \$62,787, respectively which were sold into the secondary market.

The Association also participates in the Farmer Mac Long Term Stand-By program. Farmer Mac was established by Congress to provide liquidity to agricultural lenders. At December 31, 2018, 2017 and 2016, the Association had loans amounting to \$289, \$363 and \$480, respectively, which were 100 percent guaranteed by Farmer Mac.

The Association additionally has loans wherein a certain portion of the loans are guaranteed by various governmental entities for the purpose of reducing risk. At December 31, 2018, 2017 and 2016, the balance of these loans was \$83,858, \$91,453 and \$83,882, respectively.

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. FCA approved the Rural America Bonds pilot under the Mission Related Investments umbrella, as described below.

In October 2005, the FCA authorized AgFirst 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, 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, 2017, and 2016, the Association had no loans or investments in Rural American Bonds.

CREDIT RISK MANAGEMENT

Credit risk arises from the potential inability of an obligor to meet its repayment obligation. As part of the process to evaluate the success of a loan, the Association continues to review the credit quality of the loan portfolio on an ongoing basis. With the approval of the Association Board of Directors, the Association establishes underwriting standards and lending policies that provide direction to loan officers. Underwriting standards include, among other things, an evaluation of:

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

The credit risk management process begins with an analysis of the borrower's credit history, repayment capacity, and financial position. Repayment capacity focuses on the borrower's ability to repay the loan based upon cash flows from operations or other sources of income, including non-farm income. Real estate loans must be collateralized by first liens on the real estate (collateral). As required by FCA regulations, each institution that makes loans on a collateralized basis must have collateral evaluation policies and procedures. Real estate mortgage loans may be made only in amounts up to 85 percent of the original appraised value of the property taken as collateral 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. Appraisals are required for loans of more than \$250. In addition, each loan is assigned a credit risk rating based upon the underwriting standards. This credit risk rating process incorporates objective and subjective criteria to identify inherent strengths, weaknesses, and risks in a particular relationship.

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

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

additional weaknesses in existing facts, conditions and values that make collection in full highly questionable.

Loss – Assets are considered uncollectible.

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

Credit Quality	2018	2017	2016
Acceptable & OAEM	96.90%	98.12%	98.24%
Substandard	3.10	1.88	1.76
Doubtful	_	-	-
Loss		_	_
Total	100.00%	100.00%	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	
		(do	llars	lars in thousands)			
Nonaccrual loans	\$	43,540	\$	22,822	\$	18,306	
Restructured loans		22,109		19,995		15,409	
Accruing loans 90 days past due		-		_		_	
Total high-risk loans		65,649		42,817		33,715	
Other property owned		622		240		729	
Total high-risk assets	\$	66,271	\$	43,057	\$	34,444	
Ratios							
Nonaccrual loans to total loans		1.55%		0.84%		0.70%	
High-risk assets to total assets		2.30%		1.54%		1.29%	

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 increased \$20,718 or 90.78 percent in 2018, mainly due to financial stress on some accounts in the Fruits and Vegetables sector, after having increased \$4,516 or 24.67 percent in 2017. Of the \$43,540 in nonaccrual volume at December 31, 2018, \$21,032 or 48.31 percent, compared to 33.61 percent and 28.68 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 deed in lieu of foreclosure. Other receipts of assets and/or equity to pay the loan in full or in part are also considered restructured loans. The type of alternative financing structure chosen is based on minimizing the loss incurred by both the Association and the borrower.

Allowance for Loan Losses

The allowance for loan losses at each period end was considered by Association management to be adequate to absorb probable losses existing in and inherent to its loan portfolio. For any of the three years reported.

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

	Year Ended December 3			31,	
Allowance for Loan Losses Activity		2018	2017		2016
			llars in thouse	ands)	
Balance at beginning of year	\$	25,949	\$ 24,377	\$	24,780
Charge-offs:					
Real estate mortgage		_	(44)		(198)
Production and intermediate term		(53)	(294)		(1,091)
Agribusiness		_	(132)		-
Rural residential real estate		_	-		(88)
Total charge-offs		(53)	(470)		(1,377)
Recoveries:					
Real estate mortgage		86	5		9
Production and intermediate term		102	24		202
Agribusiness		_	5		1
Rural residential real estate		6	8		12
Total recoveries		194	42		224
Net (charge-offs) recoveries		141	(428)		(1,153)
Provision for (reversal of allowance for)					
loan losses		4,000	2,000		750
Balance at end of year	\$	30,090	\$ 25,949	\$	24,377
Ratio of net (charge-offs) recoveries during the period to average loans outstanding during the period		0.01%	(0.02)%		(0.05)%

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

			December	31,	
Allowance for Loan Losses by Type	2018		2017		2016
		(dol	lars in thou	sands)	
Production and intermediate term	\$ 17,541	\$	14,379	\$	13,304
Real estate mortgage	11,205		10,216		9,715
Agribusiness	792		711		634
Rural residential real estate	400		470		494
Communication	150		168		219
Power and water/waste disposal	2		5		11
Total allowance	\$ 30,090	\$	25,949	\$	24,377

The increase in allowance for loan losses during 2018 was mainly due to an increase in loan volume and financial stress on some accounts in the Fruits & Vegetables and Poultry sector. The net loan charge-offs were not concentrated in any particular sector for any of the three years reported.

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	December 31,				
as a Percentage of:	2018	2017	2016		
Total loans	1.07%	0.95%	0.93%		
Nonaccrual loans	69.11%	113.70%	133.16%		

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

RESULTS OF OPERATIONS

Net Interest Income

Net interest income was \$71,266, \$69,479 and \$66,920 in 2018, 2017 and 2016, respectively. Net interest income is the difference between interest income and interest expense. Net interest income is the principal source of earnings for the Association and is impacted by volume, yields on assets and cost of debt. The effects of changes in average volume and interest rates on net interest income over the past three years are presented in the following table:

Change in Net Interest Income:

			Nonaccrual	
	Volume*	Rate	Income	Total
		(dollars in	thousands)	
12/31/18 - 12/31/17				
Interest income	\$ 3,180	\$ 7,912	\$ (637)	\$ 10,455
Interest expense	897	6,979	792	8,668
Change in net interest income	\$ 2,283	\$ 933	\$ (1,429)	\$ 1,787
12/31/17 - 12/31/16				
Interest income	\$ 6,959	\$ 2,584	\$ 256	\$ 9,799
Interest expense	3,055	4,081	104	7,240
Change in net interest income	\$ 3,904	\$ (1,497)	\$ 152	\$ 2,559
change in her interest meetic	Ψ 5,701	Ψ (1,177)	ψ 1 <i>0</i> 2	4 2,000

^{*}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:

	For the Year Ended			Percentage Increase/(Decrease)				
		D	ece	mber 31	,		2018/	2017/
Noninterest Income		2018		2017		2016	2017	2016
		(doll	ars	in thousan	ds)			
Loan fees	\$	1,101	\$	1,270	\$	1,280	(13.31)%	(0.78)%
Fees for financially related services		3,240		3,220		3,161	0.62	1.87
Patronage refund from other Farm Credit Institutions	3	34,076		36,226		27,519	(5.93)	31.64
Gains (losses) on sales of rural home loans, net		972		1,219		1,344	(20.26)	(9.30)
Gains (losses) on sales of premises and equipment, net		820		60		202	1,266.67	(70.30)
Gains (losses) on other transactions		(43)		320		103	(113.44)	210.68
Insurance fund refund		2,329		_		_		_
Other noninterest income (expense)		244		247		231	(1.21)	6.93
Total noninterest income	\$ 4	42,739	\$	42,562	\$	33,840	0.42 %	25.77 %

Noninterest income for each of the three years listed included a Special Patronage declaration from AgFirst, in which the cash was received by the Association the following year of declaration. The Association's share of the Special Patronage was \$17,624, \$20,065, and \$12,244 for the years ended December 31, 2018, 2017, and 2016 respectively.

In 2018, the Farm Credit System Insurance Corporation (FCSIC), which insures the System's debt obligation, had assets exceeding the secure base amount as defined by the Farm Credit Act. As a result of the excess, FCSIC made distributions to the Farm Credit System Banks and certain associations, and retired the remaining related Financial Assistance Corporation outstanding shares. The Association's share of this distribution was \$2,329.

Fees for financially related services are related principally to the crop insurance program and the "Farm Credit EXPRESS" program; the Association's income will vary depending upon product usage and commissions earned, and transactions relative to the equipment financing program.

Noninterest Expense

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

	For the Year Ended			Increase/(Decrease)		
	Dece	ember 31,		2018/	2017	
Noninterest Expense	2018	2017	2016	2017	2016	
·	(dollars	in thousands)				
Salaries and employee benefits	\$ 21,992 \$	21,027 \$	20,559	4.59 %	(2.28)%	
Post retirement benefits	7,241	(3,879)	8,481	286.67	(145.74)	
Occupancy and equipment	2,359	2,092	2,447	12.76	(14.51)	
Insurance Fund premiums	1,888	3,044	3,258	(37.98)	(6.57)	
(Gains) losses on other property owned, net	102	177	308	(42.37)	(42.53)	
Other operating expenses	8,338	10,607	7,441	(21.39)	42.55	
Total noninterest expense	\$ 41,920 \$	33,068 \$	42,494	26.77%	(22.18)%	

Noninterest expense increased \$8,852 or 26.77 percent for the year ended December 31, 2018, as compared to the same period in 2017 and decreased \$9,426 or 22.18 percent in 2017 compared to 2016.

Salaries and employee benefits increased \$965 or 4.59 percent in 2018 as compared to 2017. This increase is primarily attributable to 2018 salary adjustments and related employee benefit increases, and a slight increase in the number of employees. Excluding the impact of the deferral of salaries and employee benefits expenses which were deferred in accordance with the Accounting Standards Codification 310, salaries and benefits expense increased \$1,856 or 6.11 percent.

Post retirement benefits increased \$11,120 mainly due to the method of recording expenses for the Association's defined benefit pension plan and other postretirement benefit plan was modified. In 2017 this change resulted in the reduction of Other Assets by \$3,258 and the reduction of Other Liabilities by \$13,800 on the Association's Balance Sheet, and a corresponding reduction of postretirement benefit costs on the Association's Statements of Income of \$10,542 during 2017. Refer to Note 9, Employee Benefit Plans, of the Notes to the Consolidated Financial Statements, for further information.

The Insurance Fund premium decreased \$1,156 or 37.98 percent in 2018 as compared to 2017. The favorable change resulted from the Farm Credit System Insurance Corporation's decrease of the 2018 insurance premium. For 2018, the insurance premium was .09 percent of loans (9 basis points) as compared to .15 percent of loans (15 basis points) for 2017. The insurance premium was .16 percent of loans (16 basis points) for the first half of 2016 and .18 percent of loans (18 basis points) for the second half of 2016.

Occupancy and equipment and Other operating expenses decreased a total of \$2,002 or 15.77 percent primarily attributable to an additional contribution in 2017 of \$3,000 which was made to the charitable foundation for the advancement of agriculture that was established by the Board in 2015.

The Association's efficiency ratio, which is calculated as Operating Expenses as a percentage of Net interest income plus Total noninterest income continues to be among the lowest in the AgFirst District and significantly below the average efficiency ratio for the District. If the Association's Operating Expenses averaged the District average, then Operating Expenses would be approximately \$4.4 million higher which would result in a decrease of the same amount to Income before income taxes, and, accordingly, would adversely impact

the patronage distribution which the Association makes to stockholders.

Income Taxes

The Association recorded a provision for income taxes of \$195 for the year ended December 31, 2018, as compared to a provision of \$406 for 2017 and a provision of \$170 for 2016. Refer to Note 2, Summary of Significant Accounting Policies, Income Taxes, and Note 12, Income Taxes, of the Notes to the Consolidated Financial Statements, for more information concerning Association income taxes.

Key Results of Operations Comparisons

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

Key Results of	For the 12 Months Ended				
Operations Comparisons	12/31/18	12/31/17	12/31/16		
Return on average assets	2.43%	2.82 %	2.23 %		
Return on average members' equity	10.84%	13.02 %	10.26 %		
Net interest income as a percentage					
of average earning assets	2.59%	2.60 %	2.65 %		
Net (charge-offs) recoveries					
to average loans	0.01%	(0.02)%	(0.05)%		

In 2018, the return on average assets decreased primarily as a result of a decrease in net income while higher average shareholders' equity resulted in a decline in the return on average members' equity. An increase in average earning assets in 2018 resulted in a slightly lower net interest income as a percentage of average earning assets.

In 2017, higher net income resulted in a higher return on average assets and return on average members' equity. An increase in average earning assets in 2017 resulted in lower net interest income as a percentage of average earning assets. Net recoveries positively impacted the change in net (charge-offs) recoveries ratio for the three years presented. See Allowance for Loan Losses, Net Interest Income, Noninterest Income, and Noninterest Expenses sections for further discussion.

A key factor in maintaining and growing the net income for future years will be an increase in Acceptable loan volume, continued improvement in net interest income and controlling loan losses, while effectively managing noninterest income and noninterest expense. The lingering economic slowdown, above average unemployment or underemployment, the strength of the U.S. dollar, and reduction in federal and state government spending, continue to impact certain sectors of the

Association's portfolio and could continue to adversely impact the Association until economic stability and sustained growth in the global economy is restored. In 2018, the Association recorded a provision for loan losses of \$4,000 and charge-offs (net of recoveries) of \$141. In 2017, the Association recorded a provision for loan losses of \$2,000 and charge-offs (net of recoveries) of (\$428). In 2016, the Association recorded a provision for loan losses of \$750 and charge-offs (net of recoveries) of (\$1,153), respectively. The past three years have been favorably impacted by the receipt of Special Patronage distributions from AgFirst Farm Credit Bank which totaled \$17,624, \$20,065, and \$12,244 in 2018, 2017 and 2016, respectively. The \$17,624 was the Association's share of a \$142 million Special Patronage distribution from the Bank. The Association does not forecast continued receipt of these distributions. The fiscal stability of the Association enables it, during these somewhat uncertain times, to continue to emphasize its goals to: consistently meet the needs of our membership by providing quality loan products, generate earnings which are sufficient to fund operations, assure the adequate capitalization of the Association, and achieve an acceptable rate of return for stockholders. To meet these goals, the Association will continue its efforts of attracting and retaining high quality, competitively priced, loan volume while effectively managing credit risk in the entire loan portfolio. The Association has successfully implemented an Enterprise Risk Management (ERM) process which is expected to further aid the Association in its management of both short and longterm risks. The Association will continue to actively evaluate new or modified products, including recommendations and initiatives offered in conjunction with System projects.

LIQUIDITY AND FUNDING SOURCES

Liquidity and Funding

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

Total notes payable to the Bank at December 31, 2018, was \$2,181,496 as compared to \$2,121,161 at December 31, 2017 and \$2,040,901 at December 31, 2016. The increase of 2.84 percent compared to December 31, 2017 was attributable to (a) the increase in loan volume and (b) the Association's increase in member's equity attributable to net income. Since the beginning of 2015, loans have increased \$526,497 or 23.12 percent while Member's Equity has increased \$116,923 or 22.57 percent. The average volume of outstanding notes payable to the Bank was \$2,131,378 and \$2,085,896 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 notes payable to the Bank. The Association's participation in the Farmer Mac agreements, 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 has a net settlement agreement with CoBank, ACB to settle transactions between the two institutions daily to an aggregate line of credit of \$100 million. The Association had no other lines of credit from third party financial institutions as of December 31, 2018.

Funds Management

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

Demand for loan types is a key driver 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 90-day London Interbank Offered Rate (LIBOR). Adjustable rate mortgages are indexed to U.S. Treasury Rates. Fixed rate loans are priced based on the current cost of System debt of similar terms to maturity.

The majority of the interest rate risk in the Association's Consolidated Balance Sheet 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, Equity Investments in Other Farm Credit Institutions, of the Notes to the Consolidated Financial Statements.

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

CAPITAL RESOURCES

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

The Association Board of Directors establishes, adopts, and maintains a formal written capital adequacy plan to ensure that adequate capital is maintained for continued financial viability, to provide for growth necessary to meet the needs of members/borrowers, and to ensure that all stockholders are treated equitably. There were no material changes to the capital plan for 2018, nor are any planned for 2019, 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 4.54 percent to \$634,950 from the December 31, 2017 total of \$607,361. At December 31, 2017, total members' equity increased 6.83 percent from the December 31, 2016 total of \$568,530. The 2018 increase was primarily attributed to net income, net of various patronage related distributions and the net impact of capital stock/participation certificates issued/retired. See statement "Consolidated Statements of Changes in Members' Equity" in this Annual Report for further details.

FCA sets minimum regulatory capital requirements for System banks and associations. Capital adequacy is evaluated using a number of regulatory ratios. 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 which generally have the effect of increasing risk-adjusted assets (decreasing risk-based regulatory capital ratios) were as follows:

- Inclusion of off-balance-sheet commitments less than 14
- 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 7 years, allocated equities held for a minimum of 7 years or not subject to revolvement, unallocated retained earnings, paid-in capital, less certain regulatory required deductions including the amount of investments in other System institutions, divided by average risk-adjusted assets.
- The tier 1 capital ratio is CET1 capital plus noncumulative perpetual preferred stock, divided by average risk-adjusted assets.
- The total capital ratio is tier 1 capital plus other required borrower stock held for a minimum of 5 years, subordinated debt and limited-life preferred stock greater than 5 years to maturity at issuance subject to certain limitations, allowance for loan losses and reserve for unfunded commitments under certain limitations less certain investments in other System institutions under the corresponding deduction approach, divided by average risk-adjusted assets.
- The permanent capital ratio is all at-risk borrower stock, any allocated excess stock, unallocated retained earnings, paid-in capital, subordinated debt and preferred stock subject to certain limitations, less certain investments in other System institutions, divided by PCR risk-adjusted assets.
- The tier 1 leverage ratio is tier 1 capital, divided by average assets less regulatory deductions to tier 1 capital.
- The UREE leverage ratio is unallocated retained earnings, paid-in capital, and allocated surplus not subject to revolvement less certain regulatory required deductions including the amount of allocated investments in other System institutions divided by average assets less regulatory deductions to tier 1 capital.

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

Ratio	2017 Minimum Requirement with Capital Conservation Buffer	2018 Capital Conservation Buffer*	2018 Minimum Requirement with Capital Conservation Buffer	Capital Ratios as of December 31, 2018	Capital Ratios as of December 31, 2017
Risk-adjusted ratios:					
CET1 Capital Ratio	5.125%	0.625%	5.750%	18.84%	18.55%
Tier 1 Capital Ratio	6.625%	0.625%	7.250%	18.84%	18.55%
Total Capital Ratio	8.625%	0.625%	9.250%	21.09%	20.44%
Permanent Capital Ratio	7.0%	0.0%	7.0%	20.26%	19.67%
Non-risk-adjusted:					
Tier 1 Leverage Ratio	5.0%	0.0%	5.0%	19.88%	19.64%
UREE Leverage Ratio	1.5%	0.0%	1.5%	19.39%	17.89%

^{*} The capital conservation buffers have a 3 year phase-in period starting January 1, 2017 and will become fully effective January 1, 2020. Riskadjusted ratio minimums will increase 0.625% each year until fully phased in. There is no phase-in period for the tier 1 leverage ratio

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

The following sets forth regulatory Capital ratios as previously reported:

	Regulatory					
	Minimum	2016	2015	2014	2013	2012
Permanent Capital Ratio	7.00%	20.05%	20.58%	20.98%	20.21%	18.12%
Total Surplus Ratio	7.00%	19.71%	20.23%	20.61%	19.83%	17.73%
Core Surplus Ratio	3.50%	18.91%	19.86%	20.61%	19.68%	17.57%

For all periods presented, the Association exceeded the minimum regulatory standard for all of the applicable ratios.

The changes in the Association's permanent capital at December 31, 2018 was attributed to net income, net of patronage distribution, increased investment in AgFirst stock, an increase in the Association's capital stock and participation certificates outstanding, and an increase in loan volume outstanding.

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 of Directors, by adoption of a resolution, may establish a Patronage Allocation Program to distribute its available consolidated net earnings. This resolution provides for the application of net earnings in the manner described in the Association's Bylaws. This includes the setting aside of funds to increase surplus to meet minimum capital adequacy standards established by FCA Regulations, to increase surplus to meet Association capital adequacy standards to a level necessary to support competitive pricing at targeted earnings levels, and for reasonable reserves for necessary purposes of the Association. After excluding net earnings attributable to (a) the portion of loans participated to another institution, and (b) nonpatronage sourced income. 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 \$20,000 in 2018, \$18,517 in 2017, and \$12,595 in 2016 and distributed cash relative to patronage refunds, dividends paid and retained earnings retired of \$37,813, \$28,609 and \$31,504 to members in 2018, 2017 and 2016, respectively.

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

- Young farmers are defined as those farmers, ranchers, producers or harvesters of aquatic products who are age 35 or younger as of the date the loan is originally made.
- Beginning farmers are defined as those farmers, ranchers, producers or harvesters of aquatic products who have 10 years or less farming or ranching experience as of the date the loan is originally made.
- *** Small farmers are defined as those farmers, ranchers, producers or harvesters of aquatic products who normally

generate less than \$250,000 in annual gross sales of agricultural or aquatic products at the date the loan is originally made.

The Association's mission is to provide financial services to agriculture and the rural community, which includes providing credit to Young*, Beginning** and Small*** farmers. Because of the unique needs of these individuals, and their importance to the future growth of the Association, the Association has established annual marketing goals to serve the financing needs of YBS farmers. Specific marketing plans have been developed to target these groups, and resources have been designated to help ensure YBS borrowers access to a stable source of credit.

The following table outlines the number of borrowers, the number of YBS loans in the portfolio and the loan volume outstanding for the past two years.

As of December 31, 2018 (dollars in thousands)

	Number of	Number of	Amount of
	Borrowers	Loans	Loans
Young	2,492	4,039	\$ 444,035
Beginning	3,608	5,369	767,696
Small	6,360	9,123	875,052

As of December 31, 2017 (dollars in thousands)

	Number of	Number of	Amount of
	Borrowers	Loans	Loans
Young	2,345	3,834	\$ 424,617
Beginning	3,349	5,069	730,914
Small	6,199	8,937	854,687

For 2018, the Association's quantitative goals were to book 1,000 new business relationships, of which 50 percent or more shall meet one or more of the established criteria for designation as Young, Beginning, or Small, and to maintain or increase its overall levels of lending to Young, Beginning and Small business relationships as represented by overall percentages of the 2012 USDA Census numbers (the most recent numbers available) in MidAtlantic's territory.

The goal for booking new business relationships (BEs) was achieved as evidenced by the following table:

New BEs	1,141
Young BEs	369 or 32.3% of the total
Beginning BEs	553 or 48.5% of the total
Small BEs	726 or 63.6% of the total

The overall goal of 50 percent or greater of the new BEs being designated either Y, B or S was achieved as 829 or 72.7 percent qualified as Y, B or S.

The Association experienced a small increase in the overall number of farmers served within its territory with an increase in Young Farmers (comparisons are against USDA data for each category).

	USDA 2012 Census	% YBS USDA	MAFC territory 12/31/17	MAFC as % USDA 12/31/17	MAFC territory 12/31/18	MAFC as % USDA 12/31/18
Total Farmers	31,793	100.0%	9,539	30.0%	9,706	30.5%
Young	4,959	15.6%	2,211	44.6%	2,356	47.5%
Beginning	8,465	26.6%	3,145	37.2%	3,392	40.1%
Small	26,276	82.7%	5,771	22.0%	5,927	22.6%

There are slight differences between the USDA Census data (Census) and the Association's YBS information as follows:

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

The working definitions of Young and Beginning include a criteria of borrower age and years farming while Small is defined by the level of agricultural sales. With the passage of time, existing borrowers will move out of these two categories regardless of any operational changes or lending activities.

The Association successfully implemented a new program in 2008, StartRight that focuses on the needs of Young, Beginning, Small and Minority farmers. Since implementation, over \$200 million of StartRight loans have been booked, with over \$50 million outstanding as of year-end 2018 and over \$8.8 million of new money in 2018.

The **StartRight** program includes several outreach efforts to Young, Beginning, Small and Minority (YBSM) farmers. This outreach includes a resource center for YBSM farmers, found at www.mafc.com. It also includes a mentoring partnership program, which pairs new agricultural operators with more experienced farmers as well as various educational offerings to this group. During 2018, the Continuing Education Module of StartRight offered an online educational program called AgBiz Masters focusing on everything from macroeconomics to marketing to the importance of creating a business plan. You can read more about StartRight on the Association's website, www.mafc.com.

In addition to our StartRight program, MidAtlantic also supports a Trade Credit program, "Farm Credit EXPRESS." This program, supported through local equipment dealers within our territory, has further enhanced the YBS service of the Association. The "Farm Credit EXPRESS" program has also helped to increase sales by local equipment dealers, which promotes economic growth in the rural communities. The "Farm Credit EXPRESS" program has been expanded whereby the Association processes equipment financing applications for most of the other associations in the AgFirst District which enables those associations to further serve YBS borrowers in those territories.

The Association has the goal of serving YBS through extensive outreach programs that includes activities in marketing, education, training, and financial support. The Association continues previously sponsored outreach/sponsorship activities in which the Association participated for the purpose of promoting and supporting YBS efforts, as well as incorporated new outreach/sponsorships to continue building the Association's commitment to YBS. The Association's website, www.mafc.com, contains an entire section of information and resources specifically applicable to YBS visitors to the site.

The Farm Fresh Financing program that offers financing and credit options to local food organizations and "new generation" farmers, a term refers to producers who distribute their products through local food channels.

The Association continues its participation in specific credit programs and partnerships that we have developed to help small farmers, young farmers and farmers just starting out. It includes programs offered by the Farm Service Agency (FSA), such as guaranteed and direct loans to qualifying borrowers. The Association has earned the distinction of a "preferred lender," the highest status designated by FSA.

In addition to FSA guaranteed loans, the Association is also a Guaranteed Participating Lender for the Small Business Administration (SBA), which offers lending programs specifically for small borrowers, and also participates in a number of State lending programs that promote the agriculture industry and environmental stewardship. The Association also offers flexible financing options in-house for qualifying borrowers.

The Association remains fully committed to serving the financing needs of YBS borrowers and will continue to evaluate its programs and efforts in order to be even more effective in 2019. The Association includes YBS goals in the annual strategic plan, and reports on those goals and achievements to the board of directors on a quarterly basis.

The Association is committed to the future success of young, beginning and small farmers.

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

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:
 - 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.
 - An allowance will be established for estimated credit losses on any debt securities.
 - 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
- 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
- Upon adoption, the Association will record a cumulative-effect adjustment to equity of approximately (\$11). In addition, a Right of Use Asset in the amount of \$592 and Lease Liability in the amount of \$603 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 Notes to 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 or interest rates to borrowers, acquisitions or dispositions of material assets, material changes in the manner of conducting the business, seasonal characteristics, and concentrations of assets, if any, is incorporated in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in this Annual Report to shareholders.

Description of Property

The following table sets forth certain information regarding the properties of the reporting entity as of December 31, 2018:

Location	Description	Form of Ownership
1614 E. Churchville Road Suite 102 Bel Air, MD 21015	Branch Operations	Rented
112 East Liberty Street Charles Town, WV 25414	Satellite Office	Rented
102 Morgnec Road Chestertown, MD 21620	Branch Operations	Owned
379 Deep Shore Road Denton, MD 21629	Branch Operations	Owned
1410 South State Street Dover, DE 19901	Branch Operations	Owned
105 Railroad Avenue East New Market, MD 21631	Branch Operations	Owned
925 North East Street Frederick, MD 21701	Branch Operations	Owned
20816 DuPont Boulevard Georgetown, DE 19947	Branch Operations	Owned
1260 Maryland Avenue Suite 103A Hagerstown, MD 21740	Satellite Office	Rented
411 West Roseville Road Lancaster, PA 17601*	Branch Operations	Owned
158 Crimson Circle Martinsburg, WV 25403	Branch Operations	Owned
15 Eby Chiques Road Mount Joy, PA 17552	Branch Operations	Owned
1035 Ocean Highway Pocomoke, MD 21851	Branch Operations	Owned
680 Robert Fulton Highway Quarryville, PA 17566	Branch Operations	Owned
6546 Mid Atlantic Lane Salisbury, MD 21804	Branch Operations	Owned
1513 Main Street Shoemakersville, PA 19555	Branch Operations	Owned

Location	Description	Form of Ownership
45 Aileron Court Westminster, MD 21157	Administrative Headquarters & Branch Operations	Owned
125 Prosperity Drive Winchester, VA 22602	Branch Operations	Owned
1031 South Main Street Woodstock, VA 22664	Branch Operations	Owned
South Main Street Woodstock, VA 22664	Unimproved 1 acre lot	Owned

Rented facilities are leased by the Association at prevailing market rates from independent third parties for periods not currently exceeding five years. The Association leases excess space at two of its owned Branch Operations to third parties at prevailing market rates and expire not later than March 31, 2019.

Legal Proceedings

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

Description of Capital Structure

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

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 Notes to the Consolidated Financial Statements included in this Annual Report to shareholders.

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 to shareholders and is to be disclosed in this section, is incorporated herein by reference.

^{*} Building was sold on October 25, 2018.



Senior Officers

The following represents certain information regarding the senior officers of the Association and their business experience for the past five years.

Senior Officer	Position
Thomas H. Truitt, Jr.	President & Chief Executive Officer since January 2016. From June 2013 until December 31, 2018 was Sr. Vice President & Chief Operating Officer. From January 2009 until June 2013 was Sr. Vice President and Regional Lending Manager.
James D. Aird	Immediate past Sr. Vice President & Division Manager since July 2000, until his retirement December 31, 2018.
Cathy L. Blair	Sr. Vice President & Corporate Services and Risk since September 2017. From February 2016 through August 2017 was Vice President, Administrative Services and Corporate Secretary. Previously served the Association in various positions in the Finance and Human Resources Departments since May 2007.
Stuart D. Cooper	Sr. Vice President & Chief Lending Officer effective January 1, 2019. From September 2015 until December 31, 2018 was Sr. Vice President & Division Manager. Previously served the Association in various operations positions since October 1995.
Kurt H. Fuchs	Sr. Vice President & Legislative Affairs since January 2018. Employed by the Association in August 2012 as Government Affairs Manager.
Thomas J. Marshall	Sr. Vice President & Director of Audit and Review since January 2004.
Tammy L. Price	Sr. Vice President & Chief Information Officer since March 2009. Previously served Association in various positions in the Information Technology Department since July 2000.
Brian E. Rosati	Sr. Vice President, Finance effective upon hire in October 2018 and transitioned to Chief Financial Officer upon retirement of current Chief Financial Officer in December 2018. Employed until October 2018 as Vice President of Finance with privately owned international advertising technology company. From 2010 until 2014 was Director of Corporate Finance for a publicly traded software company. His prior twelve years of experience are with major international accounting firms in audit and tax services.
William J. Rutter	Sr. Vice President & Chief Credit Officer since March 2017. From October 2016 through February 2017 he served as the Interim Chief Credit Officer. Previously served the Association in various credit and operations positions since January 1998.
Mark A. Schnebly	Sr. Vice President & Loan Operations Manager since April 2017. From October 2016 through March 2017 he served as the Interim Loan Operations Manager. Previously served the Association in various operations positions since June 2002.
Cheryl L. Steinbacher	Sr. Vice President & Director of Human Resources and Training since March 2015. Previous three years was Senior Vice President of Human Resources & Organizational Development Director for Cardinal Bank in McLean, Virginia.
John E. Wheeler, Jr.	Immediate past Sr. Vice President & Chief Financial Officer since September 2004, until his retirement December 31, 2018. He serves as the Board Chair of St. Agnes HealthCare (healthcare, non-profit), as a board member of the Accounting Advisory Board - Sellinger School of Business and Management at Loyola University Maryland (education, non-profit) and is an affiliate faculty member at Loyola University Maryland. He is a member of the Accounting Systems Work Group and the Internal Control over Financial Reporting Work Group of the Farm Credit System, and the Fiduciary Committee for the AgFirst Farm Credit Bank and Farm Credit Bank of Texas Employee Benefit Plans.
Sandra L. Wieber	Sr. Vice President & Strategic Marketing and Legislative Affairs since September 2000, until April 2018.

Compensation

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

Name of				Change in		
Individual or				Pension	Deferred/	
Number in Group	Year	Salary	Bonus	Value	Perquisites (d)	Total
Thomas H. Truitt, Jr.	2018	\$ 450,018	\$ 181,097	\$ (45,237)	\$ 145,994	\$ 731,872
Thomas H. Truitt, Jr.	2017	400,015	125,904	341,072	168,658	1,035,649
Thomas H. Truitt, Jr.	2016	335,013	107,954	510,389	139,271	1,092,627
12 Officers*	2018(a)	1,860,423	503,386	(245,845)	442,701	2,560,665
11 Officers	2017(b)	1,754,983	321,852	1,268,370	591,824	3,937,029
14 Officers	2016(c)	1,934,563	373,420	1,546,413	854,672	4,709,068

- * Disclosure of information on the total compensation paid during 2018 to any senior officers is available to shareholders upon request.

 (a) For 2018, the table includes compensation for 1 senior officer until April 2018 when the officer resigned, 1 Senior Officer who started employment in October 2018, and 2 Senior Officers who retired in December 2018.

 (b) For 2017, the table includes the amount for one senior officer who retired in March 2017.

 (c) For 2016, the table includes the ompensation for two senior officers will March 2016 when the officers retired, for one senior officer until May 2016 when the officer retired, for one senior officer who resigned in November 2016, for one senior officer from February 2016 upon promotion to a senior officer position and for two interim senior officers from November 2016.
- (d) Amounts in the table classified as Deferred/Perquisites is comprised primarily of deferred compensation, life insurance, the Association's contributions to thrift plans (see Note 9, Employee Benefit Plans, of the notes to the Financial Statements), sign-on bonus, payment of accrued annual leave, a onetime severance payment, relocation assistance and Association provided automobile.

All of the senior officers of the Association participate in the Senior Management Incentive Plan. Goals are established annually by the Board of Directors based upon the Association's Annual Business Plan and include specific objectives regarding Profitability, Loan Growth, Capital/Risk and a Board defined Qualitative measure. Award opportunity for the CEO ranges between 0 and 75% of base salary; between 0 and 50% for the CFO, CCO and Senior Division Managers and 0 to 40% for all other senior officers. For the CEO, 80% of the incentive award is based on Association Performance and the remaining 20% is based on Personal Performance. For all other senior officers, except the Director of Audit and Review, 60% is based on Association Performance and the remaining 40% is based on Personal Performance. For the Director of

Audit and Review, 20% is based on Association Performance and the remaining 80% is based on Personal Performance.

Fifty percent of the annual incentive for all senior officers must be deferred for three years and the deferred portion is at risk during the deferral period. Annual Performance objectives must be obtained during the deferral period. The amount of the deferred portion can increase by 25% and, conversely, can reduce to 0% if annual Association Performance is not achieved at prescribed levels.

All employees other than the CEO and senior officers are eligible to participate in the Staff Profit Sharing/Incentive Plan. The Staff Plan includes certain requirements regarding Profitability, Credit Quality, Capital and certain regulatory requirements. Awards under the Plan are up to 10% for Association Performance and up to an additional 10% for individual performance for a maximum total of 20% of base

Established targets for both plans are measured at December 31, 2018 so that bonuses can be accrued in the plan year. Payment of accrued bonuses is made by March 31 following the close of the plan year. For the deferred portion of senior officers' incentive, the payment is made by March 31 of the fourth year following the initial plan year.

On February 4, 2015, the FCA Board approved the final rule, "Disclosure to Shareholders; Pension Benefit Disclosures." The rule amends FCA regulations to exclude employee compensation from being reported in the Summary Compensation Table if the employee would be considered a "highly compensated employee" solely because of payments related to or change(s) in value of the employee's qualified pension plan provided that the plan was available to all similarly situated employees on the same basis at the time the employee joined the plan. The impact to the Association is reflected in the compensation table effective 2015.

Pension Benefits Table - 2018	Number of Years of Credited Service	Actuarial Present Value of Accumulated Benefits ⁽²⁾		Payments During Last Fiscal Year	
Thomas H. Truitt, Jr., CEO					
AgFirst Retirement Plan	26.25	\$	1,799,022	\$	_
Total		\$	1,799,022	\$	-
Senior Officers (excluding CEO) ⁽¹⁾ Supplemental Executive Retirement Plan AgFirst Defined Benefit	-	\$	-	\$	_
Retirement Plan	23.79		5,331,616		_
-Total		\$	5,331,616	\$	_
			•	•	

⁽¹⁾ Deferred Benefits Plan.

Retirement and Deferred Compensation Plans

The Association's compensation programs include retirement and deferred compensation plans which are designed to provide income following an employee's retirement. Retirement benefits are paid following the employee's retirement while the benefits are earned while employed. The Association's

objective is to offer benefit plans which 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 both supports the Association's mission and allows the Association to effectively align the human capital requirements with the Association's overall strategic objectives.

Employees hired prior to January 1, 2003 participate in the AgFirst Farm Credit Retirement Plan which is a noncontributory defined benefit plan. Benefits under this plan are determined by a formula based on years of service and eligible compensation. Employees are eligible to retire and begin receiving unreduced pension benefits at age 65 or when years of service plus age equals "85". Upon retirement, annual payout is 2.0 percent of the highest three years of average salary, not including incentives, times years of credited service, subject to the Internal Revenue Code limitations.

Employees hired on or after January 1, 2003 but prior to November 4, 2014, participated in the AgFirst Farm Credit Cash Balance Retirement Plan. This plan was a qualified defined contribution pension plan. The Plan was terminated as of December 31, 2016 and vested benefits of the plan were distributed to plan participants in 2017 after plan termination approval by the Internal Revenue Service.

All Employees are eligible to 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 employment. 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 6.0 percent, subject to Internal Revenue Code limitations 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 contribution up to 6.0 percent, and beginning January 1, 2015, employees hired on or after January 1, 2003 also received an employer nonelective contribution equal to 3.0 percent of employee compensation, subject to the Internal Revenue Code limitation on compensation.

Senior officers and other highly compensated employees may participate in the Farm Credit Benefits Alliance Nonqualified Supplemental 401(k) Plan, a non-qualified deferred compensation plan. The purpose of the plan is to allow those employees to defer income taxes on a portion of their compensation until retirement or separation from the Association and to restore benefits limited in the qualified 401(k) plan as a result of restrictions in the Internal Revenue Code. The plan includes a provision for discretionary contributions by the Association.

Employees who choose to defer a portion of their compensation may defer part or all of their base salary or incentive.

Also, all employees are eligible to receive rewards (a) based on years of service on five year, or multiple of five year, anniversaries, and (b) based on special exemplary performance as defined in the plan. A copy of these plans are available to stockholders upon request.

⁽²⁾ The Present Value of Accumulated Benefits is based upon assumptions and valuation dates that are the same as those used for the valuation of pension liabilities in the 2018 Annual Report, see Note 9, Employee Benefit Plans.

Directors

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

The aggregate amount of reimbursement for travel, subsistence and other related expenses for all directors as a group was \$327,327 for 2018, \$335,442 for 2017 and \$318,153 for 2016. The Association provides computer equipment to the directors to provide for an electronic means of communication. Expenses for the equipment are accounted for in accordance with the Association's equipment policy.

Subject to approval by the board, directors are compensated for meeting attendance and special assignments. As of December 31, 2018, an honorarium of \$650 per day is paid for meetings, committee meetings (reduced to \$325 if occurring on the same day as daily honorarium) and special assignments. \$200 is paid for telephone conference meetings. Committee chairs receive an additional \$100 for each meeting of the Committee.

In addition to the honoraria, as of December 31, 2018, directors are paid a quarterly retainer fee of \$1,250 and the chairman and vice-chairman are paid an additional \$650 and \$325, respectively. Directors are compensated at a per hour rate of \$20 for travel time to Board meetings in excess of one hour.

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

Director	Current Term Expiration	Total Compensation	
Jennifer L. Rhodes	2020	\$ 42,495	
2018 Chairman	2020	Ψ 12,195	
Brian L. Boyd 2018 Vice Chairman	2022	43,230	
Paul D. Baumgardner	2020	34,950	
Gary L. Grossnickle	2019	26,450	
Laura M. Heilinger	2020	32,965	
Dale R. Hershey	2019	23,950	
Walter C. Hopkins	2021	22,460	
Anthony M. Ill Appointed and Outside	2021	36,085	
T. Jeffery Jennings	2019	24,110	
M. Wayne Lambertson	2019	25,620	
Fred R. Moore, Jr.	2021	31,120	
Michael S. Nelson	2022	19,783	
Dale J. Ockels	2019	22,505	
Ralph L. Robertson, Jr.	2018	12,808	
Douglas D. Scott	2022	27,420	
Alan N. Siegfried Appointed and Outside	2022	37,615	
Joseph D. Snapp	2021	31,020	
Fred N. West	2022	23,740	
Total		\$ 518,326	

The following represents certain information regarding Association Directors and their principal occupations during the past 5 years:

Jennifer L. Rhodes, Chairman, owns and operates Deerfield Farms LLC, a 110-acre poultry and grain operation with her two sons. The operation consists of a four-house poultry farm producing 500,000 broilers annually and an irrigated grain farm producing corn, wheat and soybeans. She is also employed as the Senior Agent for Agriculture and Natural Resources, University of Maryland Extension, Queen Anne's County, Maryland. She holds leadership positions in the following organizations: Board member of the Compass Regional Hospice, and US Roundtable for Sustainable Poultry & Eggs; County Board Member and State Committee Chair (poultry & eggs) for the Farm Bureau; Board member for Queen Anne's Soil Conservation District; Board member of Dean's Global Leadership Council, UMD AGNR; Chair of the State Farm Service Agency Committee; member of Delmarva Land and Litter Challenge Steering Committee; past President of the Delmarva Poultry Industry, Inc.; past President of the Maryland Association of County Agricultural Agents; past member of the Maryland Agriculture Commission; and served as the Governor's appointee to the Regulatory Reform Commission.

Brian L. Boyd, Vice Chairman, owns and operates a poultry production facility producing 860,000 broilers annually in four poultry houses on three different farms totaling 160 acres. He owns and operates Boyd's Custom Planting, covering 2,000+ acres per year planting soybeans and small grains. He also is the owner of Boyd Boys, LLC and trucks commodities for a local feed mill. Within the last five years, he was also employed as a feed mill manager. In addition, he is a member of the PA Farm Bureau and serves on the South Lebanon Ag Land Preserve Committee.

Paul D. Baumgardner owns Baumgardner Farms Hay, as well as the Straw and Harvest Barn Country Market. He also farms 600 acres, growing produce and proteins for the Market.

Gary L. Grossnickle is a dairy and crop farmer, and President of Grossnickle Farms, Inc. His operation consists of 1,300 acres (600 owned) in cultivation and 260 cows and 200 replacement heifers. He is also involved in Grossnickle Limited Partnership, a real estate enterprise.

Laura M. Heilinger is a co-owner with her husband of a dairy and grain operation consisting of 140 Brown Swiss and Holstein cows and 350 acres of corn, alfalfa, soybeans and some small grains.

Dale R. Hershey is a senior partner in Hershey Brothers Dairy Farm, managing the real estate and rental property aspects of the family business. Until 2010, he also managed the 300-cow dairy aspect of the business. The operation includes 650 acres of corn, alfalfa, soybeans, rye and barley. Mr. Hershey also serves on the Farm Credit Council Board of Directors, the Farm Credit Council Services Board, the Farm Credit Foundation for Agricultural Advancement (a 501 (c)(3) organization) Board, the AgFirst Farm Credit Bank Board of Directors and the AgFirst District Farm Credit Council Board. Days of service disclosed here for Mr. Hershey as a member of the MidAtlantic Board do not reflect activities in his capacity as a Farm Credit Council Board member, or an AgFirst Board or committee member. For further information related to specific duties, compensation, and days served in those positions, please see the AgFirst Farm Credit Bank 2018 Annual Report at www.agfirst.com.

Walter C. Hopkins and his son operate a dairy and grain farm consisting of 600 milk cows, 500 replacement heifers, and 1,000 acres of corn, alfalfa, grass and small grain. He owns and serves as President of Green Acres Farm, Inc. (dairy farm), and is manager of Lyon's, LLC (land holding company). Mr. Hopkins also serves on the Board, Governance Committee, and

Compensation Committee of the AgFirst Farm Credit District Bank, the Farm Credit Foundation for Agricultural Advancement (a 501 (c)(3) organization) Board, and on the AgFirst District Farm Credit Council Board. Days of service disclosed here for Mr. Hopkins as a member of the MidAtlantic Board do not reflect activities in his capacity as a board or committee member for the AgFirst Farm Credit District. For further information related to specific duties, compensation, and days served in those positions, please see the AgFirst Farm Credit Bank 2018 Annual Report at www.agfirst.com.

Anthony M. Ill was appointed as one of the Board's outside directors effective January 1, 2015. He is a Certified Public Accountant (inactive), principal in Rock Glenn Advisors, LLC, a consulting firm in the areas of business plan development, financial planning and analysis, and contract CFO assignments. His other recent professional experience includes Chief Financial and Operating Officer for Ripken Baseball, Inc., the Farm Credit Foundation for Agricultural Advancement (a 501 (c)(3) organization) Board, assignments with the University of Delaware, and the accounting practice of Weber Messick. Mr. Ill has held various senior positions such as CFO, recruiter, operations director, and president with firms including Planit Advertising, Inc., Stephen James Associates, Certis USA, Jewett Machine Manufacturing Company, and Baker Equipment Engineering Company.

T. Jeffery Jennings operates a farm consisting of 100 head of beef cows, poultry facilities with capacity for 13,000 breeder hens, and 500 acres producing corn, soybeans, barley, hay, pasture, and timber. He serves as a Board member of the Page Coop Farm Bureau and as Chairman of the Scholarship Committee of the Page County Farmers Association.

M. Wayne Lambertson farming with his son, has a 1,650 acre cash grain operation (630 acres owned) producing soybeans, corn, and wheat. He also has a 254,000 capacity broiler operation. He is owner/president of Amen Corner LLC (poultry), president of Twin Oak Farms, Inc. (grain), a partner and vice-president of JWL Enterprises (construction), and a partner in Don's Seafood Restaurant.

Fred R. Moore, Jr. owns and operates Fred R. Moore & Son, Inc. and Collins Wharf Sod, consisting of a 600-acre turf production and grain operation. In addition, he is a partner in a rental management firm. He also serves on the boards of the Wicomico County Farm Bureau and the Wicomico County Soil Conservation District. Within the last five years, he served as Chief and Assistant Chief for the Allen Fire Company. He also serves on the Board and the compensation and governance committees of the AgFirst Farm Credit District Bank, and on the AgFirst District Farm Credit Council Board. Days of service disclosed here for Mr. Moore as a member of the MidAtlantic Board do not reflect activities in his capacity as a member of the AgFirst Board and committees or the AgFirst Farm Credit Council Board. For further information related to specific duties, compensation, and days served in those positions, please see the AgFirst Farm Credit Bank 2018 Annual Report at www.agfirst.com.

Michael S. Nelson is the president of Nelson's Agri-Service, LLC operating in seed sales. As well, he is the owner/operator at Triple Creek Farm, consisting of row crops with a total of 600 acres rented/owned, and 40 head of Black Angus cows. He also serves as vice president of the Valley Lions.

Dale J. Ockels along with his two brothers, operate as a family corporation tilling 4,000 acres of corn, soybeans, and small grains. They also have a 160,000 capacity poultry operation. He serves as President of Ockels' Farms, Inc., is a partner in Ockels Acres LLC (land holding and farming), and as Treasurer of RCDG (land holding). He also serves on the boards of the Sussex County Farm Bureau, Sussex County Soil Conservation District (Treasurer), the Farm Credit Foundation for Agricultural Advancement (a 501 (c)(3) organization) Board, and on the Delaware Governor's Council on Agriculture.

Ralph L. Robertson, Jr. is co-owner with his wife of a 325acre family farm. The operation consists of contract dairy heifers, a cow-calf operation, and grain & hay cultivation. Within the last five years until his retirement on January 31, 2014, he was employed as the Program Manager for the Carroll County (MD) Agricultural Land Preservation Program. Through March of 2015, Mr. Robertson continued to provide services to that Program on a part-time contract basis. He currently serves as a Trustee on the Maryland Agricultural Land Preservation Foundation, Chair of the Carroll County Land Trust (a 501(c)(3) organization), on the Board of Governors for the Carroll County Farm Museum, and as Vice-President of the New Windsor Progressive Farmers. Mr. Robertson's term of service on MidAtlantic Board ended in May 2018.

Douglas D. Scott is owner and President of Walnut Hill Farms, Inc., a family-owned and managed cash-grain and vegetable operation consisting of 1,600 acres. He is also employed as a sales representative for Scott's Seed, LLC, a seed and agricultural consulting agency owned by his son. Mr. Scott currently holds leadership positions in: Venture Farms, Inc. (Secretary), Choptank Electric Cooperative (Board member and Secretary/Treasurer) and Mid Atlantic Cooperative Solutions, Inc., a holding company owning Aero-Energy (Board member and Treasurer).

Alan N. Siegfried was appointed as one of the Board's outside directors and its designated financial expert effective January 1, 2015. He is a Certified Public Accountant and currently serves as an adjunct professor at the University of Maryland Smith School of Business. His recent professional experience includes serving as the Director of Internal Audit for the Bank-Fund Staff Federal Credit Union, and as Auditor General for the Inter-American Development Bank. He has recently served on the Board and Audit Compliance Committee of Bon Secours Health System, Inc., and as the Vice Chair and a member of the UNICEF Audit Committee. In 2018, Mr. Siegfried was reappointed to serve as an outside director and the Board's designated financial expert effective January 1, 2019.

Joseph D. Snapp is a self-employed farmer and orchardist operating and managing West Oaks Farm, LLC. His farm operation includes 200 acres in fruit production, 600 acres in row crops, 20 acres in vegetable and sweet corn production, and cow-calf production of over 400 head. The operation also includes West Oaks Farm Market, a family venture. Mr. Snapp serves as Chairman of the Board of Directors for Southern States in Winchester/Stephens City, VA.

Fred N. West owns and operates a poultry and grain (corn, soybeans, wheat) farm consisting of 2,600 acres (200 owned) and producing 550,000 broilers. He is a partner in F & F Farm LLC (poultry) and is also a partner of Fred West Farms LLC (grain).

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

	Days Served		_		
Director	Board Meetings	Other Official Activities	Committee Assignments	Compensation for Other Activities*	
Jennifer L. Rhodes, 2018 Chairman	11	44	Executive	\$ 26,395	
Brian L. Boyd, 2018 Vice Chairman	11	44	Executive, and Audit & Review	27,330	
Paul D. Baumgardner	11	32	Executive, and Audit & Review	18,000	
Gary L. Grossnickle	11	23	Audit & Review	13,450	
Laura M. Heilinger	11	34	Governance	20,415	
Dale R. Hershey	9	21	Human Resources, and Governance	14,200	
Walter C. Hopkins	11	16	Audit & Review, and Governance	8,810	
Anthony M. Ill, Appointed and Outside	11	38	Executive, and Human Resources	21,785	
T. Jeffery Jennings	8	20	Human Resources	13,810	
M. Wayne Lambertson	10	20	Executive, Audit & Review, and Governance	11,320	
Fred R. Moore, Jr.	11	27	Executive, and Audit & Review	14,070	
Michael S. Nelson	8	18	Governance	11,133	
Dale J. Ockels	10	17	Human Resources, and Governance	11,455	
Ralph L. Robertson, Jr.	3	15	Audit & Review	8,258	
Douglas D. Scott	10	24	Executive, Audit & Review, and Governance	14,520	
Alan N. Siegfried, Appointed and Outside	9	41	Executive, and Audit & Review	22,565	
Joseph D. Snapp	11	26	Executive, and Governance	15,070	
Fred N. West	10	19	Human Resources	12,690	
Total				\$ 285,276	

^{*}Included in the Total Compensation amount in the previous table.

Transactions with Senior Officers and Directors

The reporting entity's policies on loans to and transactions with its officers and directors, to be disclosed in this section are incorporated herein by reference to Note 10, Related Party Transactions, of the Notes to the Consolidated Financial Statements included in this Annual Report to shareholders. There have been no transactions between the Association and senior officers or directors which require reporting per FCA regulations.

Involvement in Certain Legal Proceedings

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

Relationship with Independent 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.

For the year ended December 31, 2018, the Association paid fees and expenses of \$84,114 for audit services rendered by its independent auditors, PricewaterhouseCoopers LLP, (PwC). No other fees were paid to PwC.

Consolidated Financial Statements

The consolidated financial statements, together with the report thereon of PricewaterhouseCoopers LLP dated March 13, 2019 and the report of management, which appear in this Annual Report to shareholders are incorporated herein by reference. Copies of the Association's Annual and unaudited Quarterly reports are available upon request free of charge by calling 1-800-333-7950 or writing Brian E. Rosati, MidAtlantic Farm

Credit, ACA, 45 Aileron Court, Westminster, Maryland 21157-3022, or accessing the website, www.mafc.com. The Association prepares an electronic version of the Annual Report which 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 need be prepared for the fiscal quarter that coincides with the end of the fiscal year of the institution.

Borrower Information Regulations

Since 1972, Farm Credit Administration (FCA) regulations have required that borrower information be held in strict confidence by Farm Credit System (FCS) institutions, their directors, officers and employees. These regulations provide Farm Credit institutions clean guidelines for protecting their borrowers' nonpublic personal information.

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

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 shareholders.



REPORT OF THE

AUDIT COMMITTEE

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

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

PricewaterhouseCoopers LLP (PwC), the Association's independent auditors 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 MidAtlantic Farm Credit. 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:

> Fred Moore Fred R. Moore, Jr.

> > Chairman of the Audit Committee

Members of Audit Committee

Paul D. Baumgardner

Vice Chairman

Brian L. Boyd

Gary L. Grossnickle

Walter C. Hopkins

Alan N. Siegfried

March 13, 2019

REPORT OF

INDEPENDENT AUDITORS



Report of Independent Auditors

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

We have audited the accompanying consolidated financial statements of MidAtlantic 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 MidAtlantic 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.

Pricewaterhouse Coopers 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)	2	018	December 31, 2017	2016
Accepta				
Assets Cash	\$	4,376	\$ 4,690	\$ 3,894
Loans Allowance for loan losses	2,	,803,479 (30,090)	2,717,226 (25,949)	2,607,353 (24,377)
Net loans	2,	,773,389	2,691,277	2,582,976
Loans held for sale Accrued interest receivable Equity investments in other Farm Credit institutions Premises and equipment, net Other property owned Accounts receivable Other assets		593 17,069 32,074 16,438 622 34,519 2,800	15,267 31,277 15,026 240 36,913 2,804	473 13,656 29,172 11,744 729 28,166 5,915
Total assets	\$ 2,	,881,880	\$ 2,797,494	\$ 2,676,725
Liabilities Notes payable to AgFirst Farm Credit Bank Accrued interest payable Patronage refunds payable Accounts payable Other liabilities	\$ 2,	5,900 30,836 2,420 26,278	\$ 2,121,161 5,018 28,030 4,170 31,754	\$ 2,040,901 4,316 18,699 3,977 40,302
Total liabilities	2,	,246,930	2,190,133	2,108,195
Commitments and contingencies (Note 11) Members' Equity Capital stock and participation certificates Retained earnings Allocated Unallocated Accumulated other comprehensive income (loss)		10,744 388,255 236,149 (198)	10,550 365,603 231,530 (322)	10,264 332,358 226,148 (240)
Total members' equity		634,950	607,361	568,530
Total liabilities and members' equity	\$ 2,	,881,880	\$ 2,797,494	\$ 2,676,725

 $\label{thm:companying} The \ accompanying \ notes \ are \ an \ integral \ part \ of \ these \ consolidated \ financial \ statements.$

CONSOLIDATED STATEMENTS OF

INCOME

	For the y	ear ended Dece	mber 31,
(dollars in thousands)	2018	2017	2016
Interest Income			
Loans	\$ 136,982	\$ 126,527	\$ 116,728
Loans	\$ 130,702	\$ 120,327	\$ 110,720
Interest Expense			
Notes payable to AgFirst Farm Credit Bank	65,716	57,048	49,808
Net interest income	71,266	69,479	66,920
Provision for loan losses	4,000	2,000	750
Net interest income after provision for loan losses	67,266	67,479	66,170
Noninterest Income			
Loan fees	1,101	1,270	1,28
Fees for financially related services	3,240	3,220	3,16
Patronage refunds from other Farm Credit institutions	34,076	36,226	27,51
Gains (losses) on sales of rural home loans, net	972	1,219	1,34
Gains (losses) on sales of premises and equipment, net	820	60	202
Gains (losses) on other transactions	(43)	320	103
Insurance Fund refunds	2,329	_	_
Other noninterest income	244	247	23
Total noninterest income	42,739	42,562	33,840
No. 2 de cod E			
Noninterest Expense	20.222	27 572	29 67
Salaries and employee benefits Occupancy and equipment	29,233 2,359	27,573 2,092	28,67
			2,44
Insurance Fund premiums (Gains) losses on other property owned, net	1,888 102	3,044 177	3,258 308
		182	
Other operating expenses	8,338	162	7,81
Total noninterest expense	41,920	33,068	42,49
Income before income taxes	68,085	76,973	57,51
Provision for income taxes	195	406	17
Net income	\$ 67,890	\$ 76,567	\$ 57,340

CONSOLIDATED STATEMENTS OF **COMPREHENSIVE INCOME**

	For the	For the year ended December 31,											
(dollars in thousands)	2018	2017	2016										
Net income	\$ 67,890	\$ 76,567	\$ 57,346										
Other comprehensive income net of tax Employee benefit plans adjustments	124	(82)	271										
Comprehensive income	\$ 68,014	\$ 76,485	\$ 57,617										

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

CONSOLIDATED STATEMENTS OF CHANGES IN MEMBERS' EQUITY

	St	Capital tock and ticipation		Retained	Earr	nings		cumulated Other prehensive	Total Members'		
(dollars in thousands)		rtificates	I	Allocated	Unallocated		Income (Loss)		Equity		
Balance at December 31, 2015 Comprehensive income Capital stock/participation certificates	\$	9,950	\$	309,030	\$	221,238 57,346	\$	(511) 271	\$	539,707 57,617	
issued/(retired), net		314								314	
Patronage distribution Cash Nonqualified retained earnings				39,885		(12,595) (39,885)				(12,595)	
Retained earnings retired Patronage distribution adjustment				(16,606) 49		90 (46)				(16,516)	
Balance at December 31, 2016	\$	10,264	\$	332,358	\$	226,148	\$	(240)	\$	568,530	
Comprehensive income Capital stock/participation certificates						76,567		(82)		76,485	
issued/(retired), net Patronage distribution		286								286	
Cash Nonqualified retained earnings				52,282		(18,517) (52,282)				(18,517)	
Retained earnings retired Patronage distribution adjustment				(19,331) 294		(386)				(19,331) (92)	
Ç ,		10.770	Φ.		Φ.	· · · · · ·	Φ.	(222)	.		
Balance at December 31, 2017	\$	10,550	\$	365,603	\$	231,530	\$	(322)	\$	607,361	
Comprehensive income Capital stock/participation certificates						67,890		124		68,014	
issued/(retired), net Patronage distribution		194								194	
Cash Nonqualified retained earnings				43,589		(20,000) (43,589)				(20,000)	
Retained earnings retired Patronage distribution adjustment				(20,702) (235)		318				(20,702) 83	
Balance at December 31, 2018	\$	10,744	\$	388,255	\$	236,149	\$	(198)	\$	634,950	

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

CONSOLIDATED STATEMENTS OF

CASH FLOWS

(dollars in thousands)	For the year 2018	or ended Decem 2017	nber 31, 2016
Cash flows from operating activities:			
Net income	\$ 67,890	\$ 76,567	\$ 57,346
Adjustments to reconcile net income to net cash			
provided by (used in) operating activities:			
Depreciation on premises and equipment	1,234	\$ 1,125	\$ 1,202
Amortization (accretion) of net deferred loan costs (fees)	1,002	764	520
Provision for loan losses	4,000	2,000	750
(Gains) losses on other property owned	51	121	219
(Gains) losses on sales of premises and equipment, net	(820)	(60)	(202)
(Gains) losses on sales of rural home loans, net	(972)	(1,219)	(1,344)
(Gains) losses on other transactions	43	(320)	(103)
Changes in operating assets and liabilities:			
Origination of loans held for sale	(47,925)	(58,689)	(62,787)
Proceeds from sales of loans held for sale, net	48,304	60,381	63,658
(Increase) decrease in accrued interest receivable	(1,802)	(1,611)	(1,074)
(Increase) decrease in accounts receivable	2,394	(8,747)	(1,593)
(Increase) decrease in other assets	4	3,111	2,087
Increase (decrease) in accrued interest payable	882	702	416
Increase (decrease) in accounts payable	(1,750)	193	161
Increase (decrease) in other liabilities	(5,395)	(8,310)	(1,187)
Total adjustments	(750)	(10,559)	723
Net cash provided by (used in) operating activities	67,140	66,008	58,069
Cash flows from investing activities:			
Net (increase) decrease in loans	(87,754)	(111,446)	(154,582)
(Increase) decrease in equity investments in other Farm Credit institutions	(797)	(2,105)	(2,105)
Purchases of premises and equipment	(3,472)	(4,437)	(1,153)
Proceeds from sales of premises and equipment	1,646	90	211
Proceeds from sales of other property owned	207	749	1,475
Net cash provided by (used in) investing activities	(90,170)	(117,149)	(156,154)
Cash flows from financing activities:			
Advances on (repayment of) notes payable to AgFirst Farm Credit Bank, net	60,335	80,260	126,591
Capital stock and participation certificates issued/(retired), net	194	286	314
Patronage refunds and dividends paid	(17,111)	(9,278)	(14,988)
Retained earnings retired	(20,702)	(19,331)	(16,516)
Net cash provided by (used in) financing activities	22,716	51,937	95,401
Net increase (decrease) in cash	(314)	796	(2,684)
Cash, beginning of period	4,690	3,894	6,578
Cash, end of period	\$ 4,376	\$ 4,690	\$ 3,894
Supplemental schedule of non-cash activities:			
Receipt of property in settlement of loans	\$ 640	\$ 381	\$ 2,133
Estimated cash dividends or patronage distributions declared or payable	20,000	18,517	12,595
Employee benefit plans adjustments (Note 9)	(124)	82	(271)
Supplemental information:			
Interest paid	64,834	56,346	49,392
Taxes (refunded) paid, net	228	150	_

 $\label{thm:companying} The \ accompanying \ notes \ are \ an \ integral \ part \ of \ these \ consolidated \ financial \ statements.$

NOTES

TO THE CONSOLIDATED FINANCIAL STATEMENTS

(dollars in thousands, except as noted)

Note 1 — Organization and Operations

A. Organization: MidAtlantic Farm Credit, ACA (Association) is a member-owned cooperative that provides credit and credit-related services to borrowers in the counties of Kent, New Castle and Sussex in the state of Delaware; counties of Baltimore, Caroline, Carroll, Cecil, Dorchester, Frederick, Harford, Howard, Kent, Montgomery, Queen Anne's, Somerset, Talbot, Washington, Wicomico and Worcester in the state of Maryland; counties of Berks, Bucks, Carbon, Chester, Dauphin, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Philadelphia, Pike and Schuylkill in the state of Pennsylvania; counties of Accomack, Clarke, Frederick, Northampton, Page, Shenandoah and Warren, in the state of Virginia; and the counties of Berkeley, Jefferson and Morgan, 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 bank. System Banks are also responsible for supervising the activities of associations within their districts. AgFirst (Bank) and its related associations (Associations or District Associations) are collectively referred to as the AgFirst District. The District Associations jointly own substantially all of AgFirst's voting stock. As of year end, the District consisted of the Bank and nineteen District Associations. All nineteen were structured as ACA holding companies, with PCA and FLCA subsidiaries. FLCAs are tax-exempt while ACAs and PCAs are taxable.

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

subject to the prior approval of the FCA and the supervising bank.

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

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

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

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

In addition to providing funding for earning assets, the Bank provides District Associations with banking and support services such as accounting, human resources, information systems, and marketing. The costs of these



support services are included in the cost of the Direct Note or in some cases billed directly to certain Associations that use a specific service.

The Association is authorized to provide, either directly or in participation with other lenders, credit, credit commitments, and related services to eligible borrowers. Eligible borrowers include farmers, ranchers, producers or harvesters of aquatic products, rural residents, and Farmrelated businesses.

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

Note 2 — Summary of Significant Accounting Policies

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

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

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

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

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

Impaired loans are loans for which it is probable that all principal and interest will not be collected according to the contractual terms of the loan and are generally considered substandard or doubtful, which is in accordance with the loan rating model, as described below. Impaired loans include nonaccrual loans, restructured loans, and loans past due 90 days or more and still accruing interest. A loan is considered contractually past due when any principal repayment or interest payment required by the loan instrument is not received on or before the due date. A loan remains contractually past due until the entire amount past due, including principal, accrued interest, and penalty interest incurred as the result of past due status, is collected or otherwise discharged in full. A formal restructuring may also cure a past due status.

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

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

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

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

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

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

A specific allowance may be established for impaired loans under Financial Accounting Standards Board (FASB) guidance on accounting by creditors for impairment of a loan. Impairment of these loans is measured based on the present value of expected future cash flows discounted at the loan's effective interest rate or, as practically expedient, at the loan's observable market price or fair value of the collateral if the loan is collateral dependent.

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

The credit risk rating methodology is a key component of the Association's allowance for loan losses evaluation, and is generally incorporated into the institution's loan underwriting standards and internal lending limit. The Association uses a two-dimensional loan rating model based on internally generated combined system risk rating guidance that incorporates a 14-point risk rating scale to identify and track the probability of borrower default and a separate scale addressing loss given default over a period of time. Probability of default is the probability that a borrower will experience a default within 12 months from the date of the determination of the risk rating. A default is considered to have occurred if the lender believes the borrower will not be able to pay its obligation in full or the borrower is past due more than 90 days. The loss given default is management's estimate as to the anticipated economic loss on a specific loan assuming default has occurred or is expected to occur within the next 12 months.

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

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

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

Investment Income

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 \$2,495, 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. Company contributions to the 401(k) Plan are expensed as funded.

Additional information may be found in Note 9.

Multi-Employer Defined Benefit Plans

Substantially all employees hired before January 1, 2003 may participate in the AgFirst Farm Credit Retirement Plan (Plan), which is a defined benefit plan and considered multi-employer under FASB accounting guidance. The Plan is noncontributory and includes eligible Association and District employees. The "Projected Unit Credit" actuarial method is used for financial reporting purposes.

In addition to pension benefits, the Association provides certain health care and life insurance benefits for retired employees (other postretirement benefits) through a multi-District sponsored retiree healthcare plan. Substantially all employees are eligible for those benefits when they reach early retirement age while working for the Association. Authoritative accounting guidance requires the accrual of the expected cost of providing these benefits to an employee, their beneficiaries and covered dependents during the years the employee renders service necessary to become eligible for benefits.

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

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

Single Employer Defined Benefit Plans

The Association also sponsors a single employer defined benefit supplemental retirement plan and offers a FCBA supplemental 401(k) plan for certain key employees. These

plans are nonqualified; therefore, the associated liabilities are included in the 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 standalone financial statements. See Note 9 for additional information.

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 price has been adjusted based on dealer quoted pricing that is different than a third-party valuation or internal model pricing.

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

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

Additional information may be found in Note 8.

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

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

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

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

Financial Instruments

The largest source of revenue for the Association is Interest Income. Interest Income is recognized on an accrual basis driven by nondiscretionary formulas based on written contracts, such as loan agreements or securities contracts. Credit-related fees, including letter of credit fees, finance charges and other fees are recognized in Noninterest Income when earned. Other types of noninterest revenues, such as service charges, professional services and broker fees, are accrued and recognized into income as services are provided and the amount of fees earned is reasonably determinable.

Contracts with Customers

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

The Association maintains contracts with customers to provide support services in various areas such as accounting, lending transactions, consulting, insurance, and information technology. The Association does not generally incur costs to obtain contracts. As most of the contracts are to provide access to expertise or system capacity that the Association maintains, there are no material incremental costs to fulfill these contracts that should be capitalized.

Transition Information

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

Gains and Losses from Nonfinancial Assets

Any gains or losses on sales of Premises and Equipment 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 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. The impact is not expected to be material.

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 forwardlooking 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 an obligor to meet its repayment obligation which exists in outstanding loans. The Association manages credit risk associated with lending activities through an assessment of the credit risk profile of an individual obligor. The Association sets its own underwriting standards and lending policies that provide direction to loan officers and are approved by the board of directors.

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

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

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

- Real estate mortgage loans loans made to full-time or part-time farmers secured by first lien real estate mortgages with maturities from five to thirty years. These loans may be made only in amounts up to 85 percent of the appraised value of the property taken as security or up to 97 percent of the appraised value if guaranteed by a federal, state, or other governmental agency. The actual percentage of loanto-appraised value when loans are made is generally lower than the statutory required percentage.
- Production and intermediate term loans loans to fulltime or part-time farmers that are not real estate mortgage loans. These loans fund eligible financing needs including operating inputs (such as labor, feed, fertilizer, and repairs), livestock, living expenses, income taxes, machinery or equipment, farm buildings, and other business-related expenses. Production loans may be made on a secured or unsecured basis and are most often made for a period of time that matches the borrower's normal production and marketing cycle, which is typically one year or less. Intermediate term loans are made for a specific term, generally greater than one year and less than or equal to ten years.

- Loans to cooperatives loans for any cooperative purpose other than for communication, power, and water and waste disposal.
- Processing and marketing loans loans for operations to process or market the products produced by a farmer, rancher, or producer or harvester of aquatic products, or by a cooperative.
- Farm-related business loans loans to eligible borrowers that furnish certain Farm-related business services to farmers or ranchers that are directly related to their agricultural production.
- Rural residential real estate loans loans made to individuals, who are not farmers, to purchase a single-family dwelling that will be the primary residence in open country, which may include a town or village that has a population of not more than 2,500 persons. In addition, the loan may be to remodel, improve, or repair a rural home, or to refinance existing debt. These loans are generally secured by a first lien on the property.
- Communication loans loans primarily to finance rural communication providers.

- Power loans loans primarily to finance electric generation, transmission and distribution systems serving rural areas.
- Water and waste disposal loans loans primarily to finance water and waste disposal systems serving rural areas.
- International loans primarily loans or credit enhancements to other banks to support the export of U.S. agricultural commodities or supplies. The federal government guarantees a substantial portion of these loans.
- Lease receivables the net investment for all finance leases such as direct financing leases, leveraged leases, and sales-type leases.
- Other (including Mission Related) additional investments in rural America approved by the FCA on a program or a case-by-case basis. Examples of such investments include partnerships with agricultural and rural community lenders, investments in rural economic development and infrastructure, and investments in obligations and mortgage securities that increase the availability of affordable housing in rural America.

A summary of loans outstanding at period end follows:

		De	cember 31,	
	2018		2017	2016
Real estate mortgage	\$ 1,740,841	\$	1,660,982	\$ 1,577,039
Production and intermediate term	805,435		808,479	807,630
Loans to cooperatives	20,502		25,598	13,362
Processing and marketing	66,795		54,996	48,841
Farm-related business	69,057		66,050	63,636
Communication	52,853		56,951	57,697
Power and water/waste disposal	3,657		4,162	4,672
Rural residential real estate	44,339		40,008	34,476
Total loans	\$ 2,803,479	\$	2,717,226	\$ 2,607,353

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

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

The Association may purchase or sell participation interests with other parties in order to diversify risk, manage loan volume, and comply with FCA regulations. The following tables present the principal balance of participation loans at periods ended:

estate mortgage uction and intermediate term is to cooperatives essing and marketing i-related business munication er and water/waste disposal

							Decemb	er 3	1, 2016								
	Within AgF	irst i	District	,	Within Farm	Cre	redit System Outside Farm Credit System										
I	Participations Purchased	Pai	Participations Sold		Participations Participation Purchased Sold			-		articipations Sold	Participations Participation Purchased Sold]	Participations Purchased	I	Participation Sold
\$	27,347	\$	_	\$	-	\$	-	\$	-	\$	_	\$	27,347	\$			
	52,526		41,906		10,719		4,410		_		_		63,245		46,316		
	8,016		_		12,510		_		_		_		20,526		_		
	18,185		21,610		7,821		_		_		_		26,006		21,610		
	1,533		_		23,027		_		_		_		24,560		_		
	15,968		_		37,013		_		_		_		52,981		_		
	_		_		3,666		_		_		_		3,666		<u> </u>		
\$	123,575	\$	63,516	\$	94,756	\$	4,410	\$	_	\$	_	\$	218,331	\$	67,926		

Decer	l	21	20	17

Within AgFirst District			Within Farm Credit System					Outside Farm	dit System	Total					
		Par	ticipations Sold			Pa	rticipations Sold	P	articipations Purchased	Pa	rticipations Sold	P	Participations Purchased	Par	ticipations Sold
\$	18,971	\$	_	\$	-	\$	_	\$	_	\$	_	\$	18,971	\$	
	59,548		39,963		10,876		4,172		_		_		70,424		44,135
	8,925		_		16,708		_		_		_		25,633		_
	22,984		18,746		7,245		_		_		_		30,229		18,746
	713		_		23,052		_		_		_		23,765		_
	17,498		_		39,571		_		_		_		57,069		_
	_		_		4,175		_		_		_		4,175		
\$	128,639	\$	58,709	\$	101,627	\$	4,172	\$	-	\$	_	\$	230,266	\$	62,881
		Participations Purchased \$ 18,971 59,548 8,925 22,984 713 17,498	Participations Purchased \$ 18,971 \$ 59,548	Purchased Sold \$ 18,971 \$ - 59,548 39,963 8,925 - 22,984 18,746 713 - 17,498 - - -	Participations Participations Participations Participations Participations Participations Participations \$ 18,971 \$ - \$ <td>Participations Purchased Participations Sold Participations Purchased \$ 18,971 \$ - \$ - \$ 9,548 39,963 10,876 8,925 - 16,708 22,984 18,746 7,245 713 - 23,052 17,498 - 39,571 - 4,175</td> <td>Participations Purchased Participations Sold Participations Purchased Participations Purchased \$ 18,971 \$ -</td> <td>Participations Purchased Participations Sold Participations Purchased Participations Sold \$ 18,971 \$ - \$ - \$ - 59,548 39,963 10,876 4,172 8,925 - 16,708 - 22,984 18,746 7,245 - 713 - 23,052 - 17,498 - 39,571 - - 4,175 -</td> <td>Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Sold \$ 18,971 \$ - <t< td=""><td>Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Purchased \$ 18,971 \$ -</td><td>Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Purchased Participations Pu</td><td>Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Purchased Participations Purchased Participations Sold \$ 18,971 \$ - <t< td=""><td>Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Sold Participations Purchased Participations Sold Pa</td><td>Participations Purchased Participations Purchased <t< td=""><td>Participations Purchased Participations Purchased Participations Sold Participations Purchased Participatio</td></t<></td></t<></td></t<></td>	Participations Purchased Participations Sold Participations Purchased \$ 18,971 \$ - \$ - \$ 9,548 39,963 10,876 8,925 - 16,708 22,984 18,746 7,245 713 - 23,052 17,498 - 39,571 - 4,175	Participations Purchased Participations Sold Participations Purchased Participations Purchased \$ 18,971 \$ -	Participations Purchased Participations Sold Participations Purchased Participations Sold \$ 18,971 \$ - \$ - \$ - 59,548 39,963 10,876 4,172 8,925 - 16,708 - 22,984 18,746 7,245 - 713 - 23,052 - 17,498 - 39,571 - - 4,175 -	Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Sold \$ 18,971 \$ - <t< td=""><td>Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Purchased \$ 18,971 \$ -</td><td>Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Purchased Participations Pu</td><td>Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Purchased Participations Purchased Participations Sold \$ 18,971 \$ - <t< td=""><td>Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Sold Participations Purchased Participations Sold Pa</td><td>Participations Purchased Participations Purchased <t< td=""><td>Participations Purchased Participations Purchased Participations Sold Participations Purchased Participatio</td></t<></td></t<></td></t<>	Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Purchased \$ 18,971 \$ -	Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Purchased Participations Pu	Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Purchased Participations Purchased Participations Sold \$ 18,971 \$ - <t< td=""><td>Participations Purchased Participations Sold Participations Purchased Participations Sold Participations Sold Participations Purchased Participations Sold Pa</td><td>Participations Purchased Participations Purchased <t< td=""><td>Participations Purchased Participations Purchased Participations Sold Participations Purchased Participatio</td></t<></td></t<>	Participations Purchased Participations Sold Participations Sold Participations Purchased Participations Sold Pa	Participations Purchased Purchased <t< td=""><td>Participations Purchased Participations Purchased Participations Sold Participations Purchased Participatio</td></t<>	Participations Purchased Participations Purchased Participations Sold Participations Purchased Participatio

December 31, 2016

	Within AgFirst District			Within Farn	dit System	Outside Farm Credit System					Total				
		rticipations Purchased	Par	ticipations Sold	articipations Purchased	Pa	articipations Sold		articipations Purchased	Pa	rticipations Sold	P	Participations Purchased	Pai	ticipations Sold
Real estate mortgage	\$	12,352	\$	_	\$ _	\$	_	\$	-	\$	_	\$	12,352	\$	
Production and intermediate term		63,477		40,899	20,414		6,063		_		_		83,891		46,962
Loans to cooperatives		1,616		_	11,775		_		_		_		13,391		_
Processing and marketing		30,080		6,421	9,552		_		_		_		39,632		6,421
Farm-related business		148		_	23,295		_		-		_		23,443		_
Communication		14,695		_	43,153		_		-		_		57,848		_
Power and water/waste disposal		_		_	4,683		_		_		_		4,683		
Total	\$	122,368	\$	47,320	\$ 112,872	\$	6,063	\$	-	\$	-	\$	235,240	\$	53,383

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

		December 3	31, 20	18	
	Due less than 1 year	Due 1 through 5 years		Due after 5 years	Total
Real estate mortgage	\$ 69,183	\$ 541,011	\$	1,130,647	\$ 1,740,841
Production and intermediate term	201,907	385,220		218,308	805,435
Loans to cooperatives	4,082	13,422		2,998	20,502
Processing and marketing	353	52,121		14,321	66,795
Farm-related business	10,021	44,855		14,181	69,057
Communication	_	34,388		18,465	52,853
Power and water/waste disposal	_	2,208		1,449	3,657
Rural residential real estate	3,278	4,205		36,856	44,339
Total loans	\$ 288,824	\$ 1,077,430	\$	1,437,225	\$ 2,803,479
Percentage	10.30%	38.43%		51.27%	100.00%

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

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

		December 31,				December 31,	
•	2018	2017	2016		2018	2017	2016
Real estate mortgage:				Communication:			
Acceptable	92.92%	94.60%	95.80%	Acceptable	100.00%	100.00%	100.00%
OAEM	4.01	3.32	2.28	OAEM	0.00	0.00	0.00
Substandard/doubtful/loss	3.07	2.08	1.92	Substandard/doubtful/loss	0.00	0.00	0.00
	100.00%	100.00%	100.00%		100.00%	100.00%	100.00%
Production and intermediate term:				Power and water/waste disposal:			
Acceptable	91.77%	93.28%	96.20%	Acceptable	100.00%	100.00%	100.00%
OAEM	4.30	4.86	2.04	OAEM	0.00	0.00	0.00
Substandard/doubtful/loss	3.93	1.86	1.76	Substandard/doubtful/loss	0.00	0.00	0.00
	100.00%	100.00%	100.00%		100.00%	100.00%	100.00%
Loans to cooperatives:				Rural residential real estate:			
Acceptable	100.00%	100.00%	100.00%	Acceptable	94.80%	93.13%	92.00%
OAEM	0.00	0.00	0.00	OAEM	2.58	3.21	4.31
Substandard/doubtful/loss	0.00	0.00	0.00	Substandard/doubtful/loss	2.62	3.66	3.69
	100.00%	100.00%	100.00%		100.00%	100.00%	100.00%
Processing and marketing:				Total loans:			
Acceptable	100.00%	100.00%	95.75%	Acceptable	93.13%	94.53%	96.08%
OAEM	0.00	0.00	4.25	OAEM	3.77	3.59	2.16
Substandard/doubtful/loss	0.00	0.00	0.00	Substandard/doubtful/loss	3.10	1.88	1.76
	100.00%	100.00%	100.00%	-	100.00%	100.00%	100.00%
Farm-related business:							
Acceptable	99.11%	97.32%	99.30%				
OAEM	0.10	2.55	0.26				
Substandard/doubtful/loss	0.79	0.13	0.44				
	100.00%	100.00%	100.00%				

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

	 December 31, 2018												
	Through Days Past Due	90	Days or More Past Due	1	Γotal Past Due	Le	Past Due or ess Than 30 ys Past Due	To	otal Loans				
Real estate mortgage	\$ 14,382	\$	13,367	\$	27,749	\$	1,723,731	\$	1,751,480				
Production and intermediate term	6,516		5,687		12,203		798,856		811,059				
Loans to cooperatives	_		_		_		20,615		20,615				
Processing and marketing	_		_		_		67,040		67,040				
Farm-related business	118		80		198		69,126		69,324				
Communication	_		-		_		52,865		52,865				
Power and water/waste disposal	_		-		_		3,686		3,686				
Rural residential real estate	507		144		651		43,828		44,479				
Total	\$ 21,523	\$	19,278	\$	40,801	\$	2,779,747	\$	2,820,548				

			Γ) ecen	iber 31, 2017				
	Through Days Past Due	90	Days or More Past Due	1	Total Past Due	Le	Past Due or ess Than 30 ys Past Due	To	otal Loans
Real estate mortgage	\$ 5,073	\$	8,733	\$	13,806	\$	1,656,984	\$	1,670,790
Production and intermediate term	4,123		5,248		9,371		803,909		813,280
Loans to cooperatives	_		_		_		25,684		25,684
Processing and marketing	_		_		_		55,113		55,113
Farm-related business	_		52		52		66,225		66,277
Communication	_		-		_		57,024		57,024
Power and water/waste disposal	_		_		_		4,195		4,195
Rural residential real estate	550		274		824		39,306		40,130
Total	\$ 9,746	\$	14,307	\$	24,053	\$	2,708,440	\$	2,732,493

December 31, 2016 30 Through Not Past Due or 89 Days Past 90 Days or More **Total Past** Less Than 30 Due Past Due Due Days Past Due **Total Loans** 6,175 Real estate mortgage 5,919 12,094 1,573,876 1,585,970 \$ 811,924 13,380 Production and intermediate term 4,377 4,585 8,962 802,962 13,380 Loans to cooperatives Processing and marketing 48,894 48,894 63,585 57,708 63,846 57,708 233 Farm-related business 28 261 Communication 4,707 34,580 4,707 Power and water/waste disposal Rural residential real estate 460 34,120 167 2,599,232 Total 10,873 10,904 21,777 2,621,009

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

2018		2017		
		2017		2016
\$ 26,695	\$	14,750	\$	11,364
15,963		7,008		6,000
77		85		274
805		979		668
\$ 43,540	\$	22,822	\$	18,306
\$ 13,866	\$	13,090	\$	8,664
8,058		6,709		6,300
185		196		445
\$ 22,109	\$	19,995	\$	15,409
\$ _	\$	_	\$	_
\$ 65,649	\$	42,817	\$	33,715
622		240		729
\$ 66,271	\$	43,057	\$	34,444
1.55%		0.84%	,	0.70%
2 36%		1.58%		1.32%
				6.06%
\$ \$ \$	\$ 13,866 8,058 \$ 22,109 \$ 65,649 622 \$ 66,271 \$ 2,36%	15,963 77 805 \$ 43,540 \$ \$ 13,866 \$ 8,058 185 \$ 22,109 \$ \$ - \$ \$ 65,649 \$ 622	15,963 7,008 77 85 805 979 \$ 43,540 \$ 22,822 \$ 13,866 \$ 13,090 8,058 6,709 185 196 \$ 22,109 \$ 19,995 \$ - \$ - \$ 65,649 \$ 42,817 622 240 \$ 66,271 \$ 43,057 1.55% 0.84% 2.36% 1.58%	15,963 7,008 77 85 805 979 \$ 43,540 \$ 22,822 \$ \$ 13,866 \$ 13,090 \$ 8,058 6,709 185 196 \$ 22,109 \$ 19,995 \$ \$ - \$ - \$ \$ 65,649 \$ 42,817 \$ 622 240 \$ 66,271 \$ 43,057 \$ 1.55% 0.84% 2.36% 1.58%

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	\$	21,032	\$	7,670	\$	5,250		
Past due		22,508		15,152		13,056		
Total impaired nonaccrual loans	\$	43,540	\$	22,822	\$	18,306		
Impaired accrual loans:								
Restructured	\$	22,109	\$	19,995	\$	15,409		
90 days or more past due		_		_				
Total impaired accrual loans	\$	22,109	\$	19,995	\$	15,409		
Total impaired loans	\$	65,649	\$	42,817	\$	33,715		
Additional commitments to lend	\$	153	\$	22	\$	23		

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

			mber 31, 2018	Y	ear Ended	December 31, 2018				
Impaired loans:		ecorded estment		Unpaid Principal Balance	_	Related lowance	In	verage ipaired Loans	Interest Income Recognized on Impaired Loans	
With a related allowance for credi	it losses:									
Real estate mortgage	\$	9,241	\$	10,635	\$	2,861	\$	7,396	\$	67
Production and intermediate term		9,010		9,871		6,355		7,212		65
Farm-related business		77		92		16		62		1
Rural residential real estate		684		803		184		548		5
Total	\$	19,012	\$	21,401	\$	9,416	\$	15,218	\$	138
With no related allowance for cred	dit losses:									
Real estate mortgage	\$	31,320	\$	35,289	\$	_	\$	25,072	\$	228
Production and intermediate term		15,011		17,520		_		12,016		109
Farm-related business		_		_		_		_		_
Rural residential real estate		306		446		_		244		2
Total	\$	46,637	\$	53,255	\$	_	\$	37,332	\$	339
Total impaired loans:										
Real estate mortgage	\$	40,561	\$	45,924	\$	2,861	\$	32,468	\$	295
Production and intermediate term		24,021		27,391		6,355		19,228		174
Farm-related business		77		92		16		62		1
Rural residential real estate		990		1,249		184		792		7
Total	\$	65,649	\$	74,656	\$	9,416	\$	52,550	\$	477

	ember 31, 2017			ear Ended	d December 31, 2017					
Impaired loans:		ecorded estment		Unpaid Principal Balance	A	Related Allowance	In	verage npaired Loans	Interest Income Recognized on Impaired Loans	
With a related allowance for credit	t losses:									
Real estate mortgage	\$	7,623	\$	9,332	\$	1,142	\$	6,482	\$	197
Production and intermediate term		4,179		5,002		2,146		3,553		108
Farm-related business		85		91		17		72		2
Rural residential real estate		870		955		199		740		22
Total	\$	12,757	\$	15,380	\$	3,504	\$	10,847	\$	329
With no related allowance for cred	lit losses:									
Real estate mortgage	\$	20,217	\$	22,137	\$	_	\$	17,191	\$	521
Production and intermediate term		9,538		12,312		_		8,111		245
Farm-related business		_		7		_		_		_
Rural residential real estate		305		437		_		259		8
Total	\$	30,060	\$	34,893	\$	_	\$	25,561	\$	774
Total impaired loans:										
Real estate mortgage	\$	27,840	\$	31,469	\$	1,142	\$	23,673	\$	718
Production and intermediate term		13,717		17,314		2,146		11,664		353
Farm-related business		85		98		17		72		2
Rural residential real estate		1,175		1,392		199		999		30
Total	\$	42,817	\$	50,273	\$	3,504	\$	36,408	\$	1,103

		corded		Unpaid							
Impaired loans:	Recorded Investment						In	verage ipaired Loans	Interest Income Recognized on Impaired Loans		
With a related allowance for credit le	osses:										
Real estate mortgage	\$	6,555	\$	7,957	\$	1,154	\$	7,171	\$	156	
Production and intermediate term		3,881		4,667		1,185		4,246		93	
Farm-related business		274		276		55		300		7	
Rural residential real estate		541		592		143		592		13	
Total	\$	11,251	\$	13,492	\$	2,537	\$	12,309	\$	269	
With no related allowance for credit	losses:										
Real estate mortgage	\$	13,473	\$	15,470	\$	_	\$	14,741	\$	322	
Production and intermediate term		8,419		11,816		_		9,212		201	
Farm-related business		_		8		-		-		_	
Rural residential real estate		572		699		_		626		14	
Total	\$	22,464	\$	27,993	\$	_	\$	24,579	\$	537	
Total impaired loans:											
Real estate mortgage	\$	20,028	\$	23,427	\$	1,154	\$	21,912	\$	478	
Production and intermediate term		12,300		16,483		1,185		13,458		294	
Farm-related business		274		284		55		300		7	
Rural residential real estate		1,113		1,291		143		1,218		27	
Total	\$	33,715	\$	41,485	\$	2,537	\$	36,888	\$	806	

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

Reliance at December 31, 2017			teal Estate Mortgage		oduction and ntermediate term	Agı	ribusiness*	C	ommunication	,	Power and Water/Waste Disposal		Rural esidential eal Estate		Total
Charge-offs	Activity related to the allowance for	r credi	it losses:												
Recoveries Provision for loan loases 86 102 3.113 1 1 1 1 1 1 1 1 1 1	Balance at December 31, 2017	\$	10,216	\$	14,379	\$	711	\$	168	\$	5	\$	470	\$	25,949
Provision for land lases 903 3,13 81 (18) (3) 760 4,000	Charge-offs		_		· /		_		_		_		-		(53)
Balance at December 31, 2016 \$ 11,205 \$ 17,541 \$ 792 \$ 150 \$ 2 \$ 400 \$ 30,000 Balance at December 31, 2016 \$ 9,715 \$ 13,304 \$ 6,34 219 \$ 11 \$ 494 \$ 24,377 Charge-offis (44) (294) (52) — — — 470 Recoveries 54 24 5 — — — 8 42 Provision for loan losses 540 1,345 204 (51) 60 (32) 2,000 Balance at December 31, 2017 \$ 10,216 \$ 14,379 711 \$ 168 \$ 5 \$ 9 2594 Balance at December 31, 2015 \$ 9,959 \$ 13,512 \$ 540 \$ 213 \$ 11 \$ 545 \$ 24,780 Charge-offis (199) (1091) — — — — (87) (1,377) Charge-offis (199) (1091) — — — — (87) (1,377) Charge-offis (199) <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td></td<>											_				
Balance at December 31, 2016 S 9,715 S 13,304 S 634 S 219 S 111 S 494 S 24,377															
Charge-offs	Balance at December 31, 2018	\$	11,205	\$	17,541	\$	792	\$	150	\$	2	\$	400	\$	30,090
Recoveries	Balance at December 31, 2016	\$	9,715	\$	13,304	\$	634	\$	219	\$	11	\$	494	\$	24,377
Provision for loan losses	Charge-offs		(44)		(294)		(132)		_		_		_		(470)
Balance at December 31, 2017 S 10,216 S 14,379 S 711 S 168 S 5 S 470 S 25,949 Balance at December 31, 2015 S 9,959 S 13,512 S 540 S 213 S 11 S 545 S 24,780 Charge-offs (199)	Recoveries		5		24		5		_		_		8		42
Salance at December 31, 2015 S 9,959 S 13,512 S 540 S 213 S 11 S 545 S 24,780 Charge-offs (199) (1,091) (87) Charge-offs (199) (1,091) (12) Recoveries 9 202 1 12 Provision for loan losses (54) (96) 78 6	Provision for loan losses								(51)						
Charge-offs	Balance at December 31, 2017	\$	10,216	\$	14,379	\$	711	\$	168	\$	5	\$	470	\$	25,949
Recoveries	Balance at December 31, 2015	\$	9,959	\$	13,512	\$	540	\$	213	\$	11	\$	545	\$	24,780
Provision for loan losses	Charge-offs		(199)		(1,091)		_		_		_		(87)		(1,377)
Collectively S 1,15 S 1,16 S 1,18 S 1	Recoveries		9		202		1		_		_		12		224
Ralance at December 31, 2016 \$ 9,715 \$ 13,304 \$ 634 \$ 219 \$ 11 \$ 494 \$ 24,377	Provision for loan losses		(54)		696				6		_		24		750
Allowance on loans evaluated for impairment: Individually \$ 2,861 \$ 6,355 \$ 16 \$ - \$ - \$ 184 \$ 9,416 Collectively 8,344 11,186 776 150 2 216 20,674 Balance at December 31, 2018 \$ 11,205 \$ 17,541 \$ 792 \$ 150 \$ 2 \$ 400 \$ 30,090 Individually \$ 1,142 \$ 2,146 \$ 17 \$ - \$ - \$ 199 \$ 3,504 Collectively 9,074 12,233 694 168 5 271 22,445 Balance at December 31, 2017 \$ 10,216 \$ 14,379 \$ 711 \$ 168 \$ 5 271 22,445 Balance at December 31, 2017 \$ 1,154 \$ 1,185 \$ 55 \$ - \$ - \$ 143 \$ 2,5949 Individually \$ 1,54 \$ 1,185 \$ 55 \$ - \$ - \$ 143 \$ 2,5949 Balance at December 31, 2016 \$ 9,715 \$ 13,304 \$ 634 \$ 219 \$ 11 \$ 494 \$ 24,377	71		_						_		_		_		
Individually	Balance at December 31, 2016	\$	9,715	\$	13,304	\$	634	\$	219	\$	11	\$	494	\$	24,377
Individually	Allowance on loans evaluated for in	npairr	nent:												
Balance at December 31, 2018				\$	6,355	\$	16	\$	_	\$	_	\$	184	\$	9,416
Individually	Collectively		8,344		11,186		776		150		2		216		20,674
Collectively 9,074 12,233 694 168 5 271 22,445 Balance at December 31, 2017 \$ 10,216 \$ 14,379 \$ 711 \$ 168 \$ 5 \$ 470 \$ 25,949 Individually \$ 1,154 \$ 1,185 \$ 55 \$ - \$ - \$ 143 \$ 2,537 Collectively 8,561 12,119 579 219 11 351 21,840 Balance at December 31, 2016 \$ 9,715 \$ 13,304 \$ 634 \$ 219 \$ 11 \$ 494 \$ 24,377 Recorded investment in loans evaluated for impairment: Individually \$ 26,695 \$ 15,963 77 \$ - \$ \$ 805 \$ 43,540 Collectively 1,724,785 795,096 156,902 52,865 3,686 43,674 2,777,008 Balance at December 31, 2018 \$ 1,751,480 \$ 811,059 \$ 156,979 \$ 52,865 3,686 \$ 44,479 \$ 2,820,548 Individually \$ 14,750 \$ 7,008 \$ 85 \$ - \$ - \$ 979 \$ 22,822	Balance at December 31, 2018	\$	11,205	\$	17,541	\$	792	\$	150	\$	2	\$	400	\$	30,090
Balance at December 31, 2017 \$ 10,216 \$ 14,379 \$ 711 \$ 168 \$ 5 \$ 470 \$ 25,949 Individually \$ 1,154 \$ 1,185 \$ 55 \$ \$ - \$ - \$ 143 \$ 2,537 Collectively \$ 8,561 \$ 12,119 \$ 579 \$ 219 \$ 11 \$ 351 \$ 21,840 Balance at December 31, 2016 \$ 9,715 \$ 13,304 \$ 634 \$ 219 \$ 11 \$ 494 \$ 24,377 Recorded investment in loans evaluated for impairment: Individually \$ 26,695 \$ 15,963 \$ 77 \$ - \$ - \$ 805 \$ 43,540 Collectively \$ 1,724,785 \$ 795,096 \$ 156,902 \$ 52,865 \$ 3,686 \$ 43,674 \$ 2,777,008 Balance at December 31, 2018 \$ 1,751,480 \$ 811,059 \$ 156,979 \$ 52,865 \$ 3,686 \$ 44,479 \$ 2,820,548 Individually \$ 14,750 \$ 7,008 \$ 85 \$ - \$ - \$ 979 \$ 22,822 Collectively \$ 1,656,040 \$ 806,272 \$ 146,989 \$ 57,024 \$ 4,195 \$ 39,151 \$ 2,709,671 Balance at December 31, 2017 \$ 1,670,790 \$ 813,280 \$ 147,074 \$ 57,024 \$ 4,195 \$ 39,151 \$ 2,709,671 Balance at December 31, 2017 \$ 1,670,790 \$ 813,280 \$ 147,074 \$ 57,024 \$ 4,195 \$ 40,130 \$ 2,732,493 Individually \$ 11,364 \$ 6,000 \$ 274 \$ - \$ - \$ 668 \$ 18,306 Collectively \$ 1,574,606 \$ 805,924 \$ 125,846 \$ 57,708 \$ 4,707 \$ 33,912 \$ 2,602,703	Individually	\$	1,142	\$	2,146	\$	17	\$	_	\$	_	\$	199	\$	3,504
Individually	Collectively		9,074		12,233		694		168		5		271		22,445
Collectively 8,561 12,119 579 219 11 351 21,840 Balance at December 31, 2016 \$ 9,715 \$ 13,304 \$ 634 \$ 219 \$ 11 \$ 494 \$ 24,377 Recorded investment in loans evaluated for impairment: Individually \$ 26,695 \$ 15,963 77 \$ - \$ - \$ 805 \$ 43,540 Collectively 1,724,785 795,096 156,902 52,865 3,686 43,674 2,777,008 Balance at December 31, 2018 \$ 1,751,480 \$ 811,059 \$ 156,979 \$ 52,865 \$ 3,686 \$ 44,479 \$ 2,820,548 Individually \$ 14,750 \$ 7,008 \$ 85 \$ - \$ - \$ 979 \$ 22,822 Collectively 1,656,040 806,272 146,989 57,024 4,195 39,151 2,709,671 Balance at December 31, 2017 \$ 1,670,790 \$ 813,280 \$ 147,074 \$ 57,024 \$ 4,195 39,151 2,732,493 Individually \$ 11,364 \$ 6,000 \$ 274	Balance at December 31, 2017	\$	10,216	\$	14,379	\$	711	\$	168	\$	5	\$	470	\$	25,949
Recorded investment in loans evaluated for impairment: Individually \$ 26,695 \$ 15,963 \$ 77 \$ - \$ - \$ 805 \$ 43,540 Collectively 1,724,785 795,096 156,902 52,865 3,686 43,674 2,777,008 Balance at December 31, 2018 \$ 1,751,480 \$ 811,059 \$ 156,979 \$ 52,865 \$ 3,686 \$ 44,479 \$ 2,820,548 Individually \$ 14,750 \$ 7,008 \$ 85 \$ - \$ - \$ 979 \$ 22,822 Collectively 1,656,040 806,272 146,989 57,024 4,195 39,151 2,709,671 Balance at December 31, 2017 \$ 1,670,790 \$ 813,280 \$ 147,074 \$ 57,024 \$ 4,195 \$ 40,130 \$ 2,732,493 Individually \$ 11,364 \$ 6,000 \$ 274 \$ - \$ - \$ 668 \$ 18,306 Collectively 1,574,606 805,924 125,846 57,708 4,707 33,912 2,602,703	Individually	\$	1,154	\$	1,185	\$	55	\$	_	\$	_	\$	143	\$	2,537
Recorded investment in loans evaluated for impairment: Individually \$ 26,695 \$ 15,963 \$ 77 \$ - \$ - \$ 805 \$ 43,540 Collectively 1,724,785 795,096 156,902 52,865 3,686 43,674 2,777,008 Balance at December 31, 2018 1,751,480 \$ 811,059 \$ 156,979 \$ 52,865 \$ 3,686 44,479 \$ 2,820,548 Individually \$ 14,750 \$ 7,008 \$ 85 \$ - \$ - \$ 979 \$ 22,822 Collectively 1,656,040 806,272 146,989 57,024 4,195 39,151 2,709,671 Balance at December 31, 2017 \$ 1,670,790 \$ 813,280 147,074 \$ 57,024 4,195 40,130 \$ 2,732,493 Individually \$ 11,364 \$ 6,000 274 - - \$ 668 \$ 18,306 Collectively 1,574,606 805,924 125,846 57,708 4,707 33,912 2,602,703	Collectively				12,119						11		351		21,840
Individually \$ 26,695 \$ 15,963 \$ 77 \$ - \$ - \$ 805 \$ 43,540 Collectively 1,724,785 795,096 156,902 52,865 3,686 43,674 2,777,008 Balance at December 31, 2018 1,751,480 \$ 811,059 \$ 156,979 \$ 52,865 \$ 3,686 \$ 44,479 \$ 2,820,548 Individually \$ 14,750 \$ 7,008 \$ 85 \$ - \$ - \$ 979 \$ 22,822 Collectively 1,656,040 806,272 146,989 57,024 4,195 39,151 2,709,671 Balance at December 31, 2017 \$ 1,670,790 \$ 813,280 \$ 147,074 \$ 57,024 4,195 39,151 2,732,493 Individually \$ 11,364 \$ 6,000 \$ 274 \$ - \$ - \$ 668 \$ 18,306 Collectively 1,574,606 805,924 125,846 57,708 4,707 33,912 2,602,703	Balance at December 31, 2016	\$	9,715	\$	13,304	\$	634	\$	219	\$	11	\$	494	\$	24,377
Individually \$ 26,695 \$ 15,963 \$ 77 \$ - \$ - \$ 805 \$ 43,540 Collectively 1,724,785 795,096 156,902 52,865 3,686 43,674 2,777,008 Balance at December 31, 2018 1,751,480 \$ 811,059 \$ 156,979 \$ 52,865 \$ 3,686 44,479 \$ 2,820,548 Individually \$ 14,750 \$ 7,008 \$ 85 \$ - \$ - \$ 979 \$ 22,822 Collectively 1,656,040 806,272 146,989 57,024 4,195 39,151 2,709,671 Balance at December 31, 2017 \$ 1,670,790 \$ 813,280 \$ 147,074 \$ 57,024 \$ 4,195 \$ 40,130 \$ 2,732,493 Individually \$ 11,364 \$ 6,000 \$ 274 \$ - \$ - \$ 668 \$ 18,306 Collectively 1,574,606 805,924 125,846 57,708 4,707 33,912 2,602,703	Recorded investment in loans evalu	ated f	or impairmer	ıt:											
Balance at December 31, 2018 \$ 1,751,480 \$ 811,059 \$ 156,979 \$ 52,865 \$ 3,686 \$ 44,479 \$ 2,820,548 Individually \$ 14,750 \$ 7,008 \$ 85 \$ - \$ - \$ 979 \$ 22,822 Collectively 1,656,040 806,272 146,989 57,024 4,195 39,151 2,709,671 Balance at December 31, 2017 \$ 1,670,790 \$ 813,280 147,074 \$ 57,024 \$ 4,195 \$ 40,130 \$ 2,732,493 Individually \$ 11,364 \$ 6,000 \$ 274 \$ - \$ - \$ 668 \$ 18,306 Collectively 1,574,606 805,924 125,846 57,708 4,707 33,912 2,602,703					15,963	\$	77	\$	_	\$	_	\$	805	\$	43,540
Individually \$ 14,750 \$ 7,008 8 85 \$ - \$ - \$ 979 \$ 22,822 Collectively 1,656,040 806,272 146,989 57,024 4,195 39,151 2,709,671 Balance at December 31, 2017 \$ 1,670,790 \$ 813,280 147,074 \$ 57,024 4,195 \$ 40,130 \$ 2,732,493 Individually \$ 11,364 \$ 6,000 \$ 274 \$ - \$ - \$ 668 \$ 18,306 Collectively 1,574,606 805,924 125,846 57,708 4,707 33,912 2,602,703	Collectively		1,724,785		795,096		156,902		52,865		3,686		43,674		2,777,008
Collectively 1,656,040 806,272 146,989 57,024 4,195 39,151 2,709,671 Balance at December 31, 2017 \$ 1,670,790 \$ 813,280 \$ 147,074 \$ 57,024 \$ 4,195 \$ 40,130 \$ 2,732,493 Individually \$ 11,364 \$ 6,000 \$ 274 \$ - \$ - \$ 668 \$ 18,306 Collectively 1,574,606 805,924 125,846 57,708 4,707 33,912 2,602,703	Balance at December 31, 2018	\$	1,751,480	\$	811,059	\$	156,979	\$	52,865	\$	3,686	\$	44,479	\$	2,820,548
Collectively 1,656,040 806,272 146,989 57,024 4,195 39,151 2,709,671 Balance at December 31, 2017 \$ 1,670,790 \$ 813,280 \$ 147,074 \$ 57,024 \$ 4,195 \$ 40,130 \$ 2,732,493 Individually \$ 11,364 \$ 6,000 \$ 274 \$ - \$ - \$ 668 \$ 18,306 Collectively 1,574,606 805,924 125,846 57,708 4,707 33,912 2,602,703	Individually	S	14,750	\$	7,008	\$	85	\$	_	\$	_	\$	979	\$	22,822
Individually \$ 11,364 \$ 6,000 \$ 274 \$ - \$ - \$ 668 \$ 18,306 Collectively 1,574,606 805,924 125,846 57,708 4,707 33,912 2,602,703			1,656,040		806,272		146,989		57,024		4,195		39,151		
Collectively 1,574,606 805,924 125,846 57,708 4,707 33,912 2,602,703	Balance at December 31, 2017	\$	1,670,790	\$	813,280	\$	147,074	\$	57,024	\$	4,195	\$	40,130	\$	2,732,493
Collectively 1,574,606 805,924 125,846 57,708 4,707 33,912 2,602,703	Individually	S	11.364	S	6,000	\$	274	\$		S		\$	668	\$	18.306
		-		-	- /	-		-	57,708	-		-		_	
	Balance at December 31, 2016	\$	1,585,970	\$	811,924	\$	126,120	\$	57,708	\$	4,707	\$	34,580	\$	2,621,009

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

To mitigate risk of loan losses, the Association has entered into Long-Term Standby Commitments to Purchase agreements with the Federal Agricultural Mortgage Corporation (Farmer Mac). The agreements, which are effectively credit guarantees that will remain in place until the loans are paid in full, give the Association the right to sell the loans identified in the agreements to Farmer Mac in the event of default (typically four months past due), subject to certain conditions. The balance of loans under Long-Term Standby Commitments to Purchase held by the Association was \$289, \$363, and \$480 at December 31, 2018, 2017, and 2016, respectively. Fees paid to Farmer Mac for such commitments totaled \$3, \$4, and \$6 for 2018, 2017, and 2016, respectively.

A restructuring of a debt constitutes a troubled debt restructuring (TDR) if the creditor for economic or legal reasons related to the debtor's financial difficulties grants a concession to the debtor that it would not otherwise consider. The following tables present additional information about pre-modification and post-modification outstanding recorded investment and the effects of the modifications that occurred during the periods presented.

			Ye	ar En	ded Decembe	er 31	, 2018		
Outstanding Recorded Investment	Interest Concessions		Principal Concessions		Other Concessions		Total	Charg	e-offs
Pre-modification:									
Real estate mortgage	\$	2,673	\$ 3,437	\$	_	\$	6,110		
Production and intermediate term		678	12,179		_		12,857		
Rural residential real estate		222	_		8		230		
Total	\$	3,573	\$ 15,616	\$	8	\$	19,197		
Post-modification:									
Real estate mortgage	\$	2,678	\$ 3,430	\$	_	\$	6,108	\$	_
Production and intermediate term		680	12,157		_		12,837		_
Rural residential real estate		224	· –		8		232		_
Total	\$	3,582	\$ 15,587	\$	8	\$	19,177	\$	_

	 Year Ended December 31, 2017											
Outstanding Recorded Investment	nterest acessions		rincipal ncessions		Other cessions		Total	Charg	e-offs			
Pre-modification: Real estate mortgage Production and intermediate term Rural residential real estate Total	\$ 4,364 1,234 232 5,830	\$	3,294 7,372 163 10,829	\$	- - -	\$	7,658 8,606 395 16,659					
Post-modification: Real estate mortgage Production and intermediate term Rural residential real estate Total	\$ 4,401 1,383 240 6,024	\$	3,129 6,553 163 9,845	\$	- - -	\$	7,530 7,936 403 15,869	\$	- - -			

	Year Ended December 31, 2016												
Outstanding Recorded Investment		terest cessions		Principal Concessions		Other Concessions		Total	Charg	e-offs			
Pre-modification:													
Real estate mortgage	\$	130	\$	1,462	\$	-	\$	1,592					
Production and intermediate term		53		12,116		_		12,169					
Farm-related business		_		53		_		53					
Rural residential real estate		242		31		_		273					
Total	\$	425	\$	13,662	\$	_	\$	14,087					
Post-modification:													
Real estate mortgage	\$	132	\$	1,379	\$	_	\$	1,511	\$	-			
Production and intermediate term		53		12,250		_		12,303		_			
Farm-related business		_		43		_		43		_			
Rural residential real estate		242		32		_		274		_			
Total	\$	427	\$	13,704	\$	_	\$	14,131	\$	_			

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

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

	 1	ear Ended D	ecember 31,	
Defaulted troubled debt restructurings	2018		2017	2016
Real estate mortgage	\$ 1,632	\$	1,012	\$ _
Production and intermediate term	525		1,083	2,852
Farm-related business	_		_	42
Rural residential real estate	413		_	_
Total	\$ 2,570	\$	2,095	\$ 2,894

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

Real estate mortgage Production and intermediate term Farm-related business Rural residential real estate Total loans Additional commitments to lend

			To	tal TDRs			Nonaccrual TDRs								
			Dec	ember 31,			December 31,								
2018 2017				2016			2018		2017		2016				
	\$	18,907	\$	17,275	\$ 11,238		\$	5,041	\$	4,185	\$	2,574			
		15,769		8,828	8,684			7,711		2,119		2,384			
		25		33	42			25		33		42			
		749		580	727			564		384		282			
	\$	35,450	\$	26,716	\$ 20,691		\$	13,341	\$	6,721	\$	5,282			
	\$	152	\$	18	\$ _			•				·	_		

The following table presents information as of period end:

	Dec	ember 31, 2018
Carrying amount of foreclosed residential real estate properties		
held as a result of obtaining physical possession	\$	622
Recorded investment of consumer mortgage loans secured by		
residential real estate for which formal foreclosure		
proceedings are in process	\$	_

Note 4 — Investments

Equity Investments in Other Farm Credit Institutions

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

The Association is required to maintain ownership in the Bank in the form of Class B or Class C stock as determined by the Bank. The Bank may require additional capital contributions to maintain its capital requirements. The Association's investment in the Bank totaled \$29,612 for 2018, \$28,788 for 2017 and \$26,740 for 2016. The Association owns 10.83 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 \$2,462 related to other Farm Credit institutions at December 31, 2018.

Note 5 — Real Estate and Other Property

Premises and Equipment

Premises and equipment consists of the following:

		December 31	,
	2018	2017	2016
Land	\$ 2,843	\$ 2,544	\$ 2,628
Buildings and improvements	17,668	18,334	14,593
Furniture and equipment	8,719	7,565	7,35
	29,230	28,443	24,572
Less: accumulated depreciation	12,792	13,417	12,828
Total	\$ 16,438	\$ 15,026	\$ 11,744

Other Property Owned

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

		Dece	mber 3	31,	
	2018		2017		2016
(Gains) losses on sale, net	\$ 51	\$	49	\$	(107)
Carrying value unrealized (gains) losses	_		72		326
Operating (income) expense, net	51		56		89
(Gains) losses on other property owned, net	\$ 102	\$	177	\$	308

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

Note 6 — Debt

Notes Payable to AgFirst Farm Credit Bank

Under the Farm Credit Act, the Association is obligated to borrow only from the Bank, unless the Bank approves borrowing from other funding sources. The borrowing relationship is established with the Bank through a General Financing Agreement (GFA). The GFA utilizes the Association's credit and fiscal performance as criteria for establishing a line of credit on which the Association may draw funds. The GFA has a one year term which expires on December 31 and is renewable each year. The Association has no reason to believe the GFA will not be renewed upon expiration. The Bank, consistent with FCA regulations, has established limitations on the Association's ability to borrow funds based on specified factors or formulas relating primarily to credit quality and financial condition. At December 31, 2018, the Association's notes payable were within the specified limitations.

The Association's indebtedness to the Bank represents borrowings by the Association to fund its earning assets. This indebtedness is collateralized by a pledge of substantially all of the Association's assets and the terms of the revolving lines of credit are governed by the GFA. Interest rates on both variable and fixed rate advances are generally established loan-by-loan based on the Bank's marginal cost of funds, capital position,

operating costs and return objectives. In the event of prepayment of any portion of a fixed rate advance, the Association may incur a prepayment penalty in accordance with the terms of the GFA and which will be included in interest expense. The interest rate is periodically adjusted by the Bank based upon agreement between the Bank and the Association.

The weighted average interest rates on the variable rate advances were 3.44 percent for LIBOR-based loans and 3.49 percent for Prime-based loans, and the weighted average remaining maturities were 3.2 years and 3.3 years, respectively, at December 31, 2018. The weighted-average interest rate on the fixed rate and adjustable rate mortgage (ARM) loans which are match funded by the Bank was 3.25 percent, and the weighted average remaining maturity was 9.0 years at December 31, 2018. The weighted-average interest rate on all interest-bearing notes payable was 3.28 percent and the weighted-average remaining maturity was 8.0 years at December 31, 2018. Variable rate and fixed rate notes payable represent approximately 17.34 percent and 82.66 percent, respectively, of gross notes payable at December 31, 2018 (-8.05 percent and 108.05 percent of total notes payable, respectively, after consideration of netting the Association's available equities). The weighted average maturities described above are related to matched-funded loans. The direct note itself has an annual maturity as prescribed in the GFA.

Note 7 — Members' Equity

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

A. Capital Stock and Participation Certificates: In accordance with the Farm Credit Act and the Association's capitalization bylaws, each borrower is required to invest in Class C stock for agricultural loans, or Class C 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 equal two percent of the loan amount or one thousand dollars, whichever is less. The Association's Board of Directors may increase the amount of investment if necessary to meet the Association's capital needs. Loans designated for sale or sold into the Secondary Market on or after April 16, 1996 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, usually as part of the loan proceeds and not as a cash investment. The aggregate par value is generally added to the principal amount of the related loan obligation. The Association retains a first lien on the stock or participation certificates owned by borrowers. Retirement of such equities will generally be at the lower of par or book value, and repayment of a loan does not automatically result in retirement of the corresponding stock or participation certificates.

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

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

Effective January 1, 2017, the regulatory capital requirements for System Banks and associations were modified. The new regulations ensure that the System's capital requirements are comparable to the Basel III framework and the standardized approach that the federal banking regulatory agencies have adopted. New regulations replaced core surplus and total surplus ratios with common equity tier 1 (CET1) capital, tier 1 capital, and total capital risk-based ratios. The new regulations also include a tier 1 leverage ratio and an unallocated retained earnings (URE) and URE equivalents (UREE) leverage ratio. The permanent capital ratio (PCR) remains in effect.

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

- The CET1 capital ratio is the sum of statutory minimum purchased borrower stock, other required borrower stock held for a minimum of 7 years, allocated equities held for a minimum of 7 years or not subject to revolvement, unallocated retained earnings, paid-in capital, less certain regulatory required deductions including the amount of investments in other System institutions, divided by average risk-adjusted assets.
- The tier 1 capital ratio is CET1 capital plus noncumulative perpetual preferred stock, divided by average risk-adjusted assets.
- The total capital ratio is tier 1 capital plus other required borrower stock held for a minimum of 5 years, subordinated debt and limited-life preferred stock greater than 5 years to maturity at issuance subject to certain limitations, allowance for loan losses and reserve for unfunded commitments under certain limitations less certain investments in other System institutions under the corresponding deduction approach, divided by average risk-adjusted assets.
- The permanent capital ratio is all at-risk borrower stock, any allocated excess stock, unallocated retained earnings, paid-in capital, subordinated debt and preferred stock subject to certain limitations, less certain investments in other System institutions, divided by PCR risk-adjusted
- The tier 1 leverage ratio is tier 1 capital, divided by average assets less regulatory deductions to tier 1 capital.
- The URE and UREE leverage ratio is unallocated retained earnings, paid-in capital, and allocated surplus not subject to revolvement less certain regulatory required deductions including the amount of allocated investments in other System institutions divided by average assets less regulatory deductions to tier 1 capital.

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

	Minimum	Capital Conservation	Minimum Requirement with Capital	Capital Ratios as of December 31,			
Ratio	Requirement	Buffer*	Conservation Buffer	2018	2017		
Risk-adjusted ratios:							
CET1 Capital	4.5%	1.25%	5.75%	18.84%	18.55%		
Tier 1 Capital	6.0%	1.25%	7.25%	18.84%	18.55%		
Total Capital	8.0%	1.25%	9.25%	21.09%	20.44%		
Permanent Capital	7.0%	0.0%	7.0%	20.26%	19.67%		
Non-risk-adjusted ratios:							
Tier 1 Leverage	4.0%	1.0%	5.0%	19.88%	19.64%		
URE and UREE Leverage	1.5%	0.0%	1.5%	19.39%	17.89%		

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

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

C. Description of Equities: The Association is authorized to issue or have outstanding Classes A, C, D and E 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 (\$5.00) per share.

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

		Shares Ou	tstanding
Class	Protected	Number	Aggregate Par Value
C Common/Voting	No	1,987,148	\$ 9,936
C Participation Certificates/Nonvoting	No	161,645	808
Total Capital Stock and Participation			
Certificates	,	2,148,793	\$ 10,744

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

Retained Earnings

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

The Association maintains an allocated retained earnings account consisting of earnings held and allocated to

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

The Association has a first lien and security interest on all 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 of the Board of Directors, may order any and all surplus account allocations owned by such borrower to be applied against the indebtedness.

Allocated equities shall be retired solely at the discretion of the Board of Directors, provided that minimum capital standards established by the FCA and the Board are met. Nonqualified retained equity is considered to be permanently invested in the Association and 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 \$35,729 of nonqualified allocated surplus and \$352,526 of nonqualified retained surplus.

Voting Rights

Classes A and E Common Stock and Class C Participation Certificates are nonvoting. Classes C and D Common Stock have voting rights. Each voting shareholder shall be entitled to only one vote.

Dividends

The Association may declare noncumulative dividends on its capital stock and participation certificates provided the dividend rate does not exceed eight percent (8%) of the par value of the respective capital stock and participation certificates.

The rate of dividends paid on Classes A, C, D and E Common Stock and Class C Participation Certificates shall be at the same rate per share.

Dividends may not be declared if, after recording the liability, the Association would not meet its capital adequacy standards.

Patronage Distributions

Prior to the beginning of any fiscal year, the Board of Directors, 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 each fiscal year. 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 of Directors. A minimum of 20 percent of the total qualified patronage distribution to any borrower for any fiscal year shall always be paid in cash.

Transfer

Classes A, C, D and E Common Stocks, and Class C Participation Certificates may be transferred to persons or entities eligible to purchase or hold such equities.

Impairment

Any net losses recorded by the Association shall first be applied against unallocated members' equity. To the extent that such losses would exceed unallocated members' equity, such losses would be applied consistent with the Association's bylaws and shall be borne ratably by each share of Class A, C, D and E Common Stock and Class C Participation Certificates outstanding.

Impaired stock and participation certificates shall be restored in the reverse of the impairment sequence until each share of stock and participation certificates has a book value equal to its par or face value, respectively.

Liquidation

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

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

Second, to the holders of allocated surplus evidenced by qualified written notices of allocation, in the order of year of issuance and pro rata by year of issuance, until the total amount of such allocated surplus has been distributed;

Third, to the holders of allocated surplus evidenced by nonqualified written notices of allocation, in the order of year of issuance and pro rata by year of issuance, until the total amount of such allocated surplus has been distributed;

Fourth, insofar as is practicable, any remaining assets shall be distributed to past and present Patrons on a patronage basis in a fair and equitable manner determined by the Board or receiver.

D. Accumulated Other Comprehensive Income (AOCI):

Employee Benefit Plans: Balance at beginning of period Other comprehensive income before reclassifications Amounts reclassified from AOCI Net current period OCI Balance at end of period

Changes in Accumulated Other Comprehensive Income by Component (a)													
For the Years Ended December 31,													
	2018		2017		2016								
\$	(322)	\$	(240)	\$	(511)								
	117		(123)		(18)								
	124		(82)		289 271								
\$	(198)	\$	(322)	\$	(240)								

	ixcias	meanon	is Out of Accumi	uiateu O	ther comprehe	isive fileonic (b)
	2018		2017		2016	Income Statement Line Item
Defined Benefit Pension Plans:						
Periodic pension costs	\$ (7)	\$	(41)	\$	(289)	See Note 9.
Amounts reclassified	\$ (7)	\$	(41)	\$	(289)	

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

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

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

Level 1

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.

The Association has no Level 2 assets or liabilities measured at fair value on a recurring basis at December 31, 2018.

Level 3

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

Fair values of loans in a nonaccrual status are estimated to be the carrying amount of the loan less specific reserves. Certain loans evaluated for impairment under FASB guidance have fair values based upon the underlying collateral, as the loans were collateral-dependent. Specific reserves were established for these loans when the value of the collateral, less estimated cost to sell, was less than the principal balance of the loan. The fair value measurement process uses independent appraisals and other market-based information, but in many cases it also requires significant input based on management's knowledge of and judgment about current market conditions, specific issues relating to the collateral and other matters.

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

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

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

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

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

	December 31, 2018									
		Total Carrying Amount		Level 1		Level 2		Level 3		Total Fair Value
Recurring Measurements										
Assets:										
Assets held in trust funds	\$	2,495	\$	2,495	\$	_	\$	_	\$	2,495
Recurring Assets	\$	2,495	\$	2,495	\$	_	\$	_	\$	2,495
Liabilities:										
Recurring Liabilities	\$	_	\$	_	\$	_	\$	_	\$	
Nonrecurring Measurements										
Assets:										
Impaired loans	\$	9,596	\$	_	\$	_	\$	9,596	\$	9,596
Other property owned		622		_		_		714		714
Nonrecurring Assets	\$	10,218	\$	_	\$	_	\$	10,310	\$	10,310
Other Financial Instruments										
Assets:										
Cash	\$	4,376	\$	4,376	\$	_	\$	_	\$	4,376
Loans		2,764,386		_		_		2,708,265		2,708,265
Other Financial Assets	\$	2,768,762	\$	4,376	\$	_	\$	2,708,265	\$	2,712,641
Liabilities:										
Notes payable to AgFirst Farm Credit Bank	\$	2,181,496	\$	_	\$	_	\$	2,153,868	\$	2,153,868
Other Financial Liabilities	\$	2,181,496	\$	_	\$	_	\$	2,153,868	\$	2,153,868

	December 31, 2017									
		Total Carrying Amount		Level 1		Level 2		Level 3		Total Fair Value
Recurring Measurements										
Assets:	•	2.562	Φ.	2.562	Φ.		•		Φ.	2.562
Assets held in trust funds	\$	2,562	\$	2,562	\$ \$		\$ \$		\$	2,562
Recurring Assets	2	2,562	\$	2,562	\$		2		2	2,562
Liabilities:										
Recurring Liabilities	\$	_	\$	_	\$	_	\$	_	\$	
Nonrecurring Measurements										
Assets:										
Impaired loans	\$	9,253	\$	_	\$	_	\$	9,253	\$	9,253
Other property owned		240		_		_		270		270
Nonrecurring Assets	\$	9,493	\$	_	\$	_	\$	9,523	\$	9,523
Other Financial Instruments										
Assets:										
Cash	\$	4,690	\$	4,690	\$	_	\$	_	\$	4,690
Loans		2,682,024				_		2,644,135		2,644,135
Other Financial Assets	\$	2,686,714	\$	4,690	\$	-	\$	2,644,135	\$	2,648,825
Liabilities:										
Notes payable to AgFirst Farm Credit Bank	\$	2,121,161	\$	_	\$	_	\$	2,105,418	\$	2,105,418
Other Financial Liabilities	\$	2,121,161	\$	_	\$	_	\$	2,105,418	\$	2,105,418

	December 31, 2016								
	Total Carrying Amount		Level 1		Level 2		Level 3		Total Fair Value
Recurring Measurements									
Assets:									
Assets held in trust funds	\$ 2,230	\$	2,230	\$	_	\$	_	\$	2,230
Recurring Assets	\$ 2,230	\$	2,230	\$	_	\$	_	\$	2,230
Liabilities:									
Recurring Liabilities	\$ _	\$	-	\$	_	\$	_	\$	_
Nonrecurring Measurements									
Assets:									
Impaired loans	\$ 8,714	\$	_	\$	_	\$	8,714	\$	8,714
Other property owned	729		_		_		823		823
Nonrecurring Assets	\$ 9,443	\$	_	\$	_	\$	9,537	\$	9,537
Other Financial Instruments									
Assets:									
Cash	\$ 3,894	\$	3,894	\$	_	\$	_	\$	3,894
Loans	2,574,735				_		2,538,345		2,538,345
Other Financial Assets	\$ 2,578,629	\$	3,894	\$	_	\$	2,538,345	\$	2,542,239
Liabilities:									
Notes payable to AgFirst Farm Credit Bank	\$ 2,040,901	\$	_	\$	_	\$	2,023,769	\$	2,023,769
Other Financial Liabilities	\$ 2,040,901	\$	_	\$	-	\$	2,023,769	\$	2,023,769

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.

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 at December 31, 2018

		_	0		
	Fa	ir Value	Valuation Technique(s)	Unobservable Input	Range
Impaired loans and other property owned	\$	10,310	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
Notes payable to AgFirst Farm Credit Bank	Discounted cash flow	Prepayment forecasts
		Probability of default
		Loss severity

Note 9 — Employee Benefit Plans

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

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

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

- 1. The Employee Identification Number (EIN) and three-digit Pension Plan Number.
- 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.
- The "FIP/RP Status" indicating whether a financial improvement plan (FIP) or a rehabilitation plan (RP) is either pending or has been implemented.
- The expiration date(s) of collective-bargaining agreement(s).

The FAP Plan covers employees hired prior to January 1, 2003 and includes other District employees that are not employees of the 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 \$5,444 for 2018, \$4,886 for 2017, and \$5,874 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 of age 55 and 10 years of service. Employees hired after December 31, 2002, and employees who separate from service between age 50 and age 55, are required to pay the full cost of

their retiree health insurance coverage. Employees who retire subsequent to December 1, 2007 are no longer provided retiree life insurance benefits. The OPEB Plan includes other Farm Credit System employees that are not employees of the Association or District and is accounted for as a multiemployer plan. The related net benefit plan obligations are not included in the Association's Balance Sheets but are included in the Combined Statement of Condition for the Farm Credit System. The OPEB Plan is unfunded with expenses paid as incurred. Postretirement benefits other than pensions included in employee benefit costs on the Association's Statements of Income were \$594 for 2018, \$572 for 2017, and \$1,215 for 2016. At December 31, 2018, the total AgFirst District liability balance for the OPEB Plan presented in the Farm Credit System Combined Statement of Condition is \$181,820.

During 2017, the method of recording expenses at participating District entities for the 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 \$3,258 and the reduction of Other Liabilities by \$13,800 on the Association's Balance Sheets, and a total reduction of noninterest expenses on the Association's Statements of Income of \$10,542 during 2017.

The Association also participates in a defined contribution Farm Credit Benefits Alliance (FCBA) 401(k) Plan (401(k) Plan), which qualifies as a 401(k) plan as defined by the Internal Revenue Code. For employees hired on or prior to December 31, 2002, the Association contributes \$0.50 for each \$1.00 of the employee's first 6.00 percent of contribution (based on total compensation) up to the maximum employer contribution of 3.00 percent of total compensation. For employees hired on or after January 1, 2003, the Association contributes \$1.00 for each \$1.00 of the employee's first 6.00 percent of contribution up to the maximum employer contribution of 6.00 percent of total compensation. Employee deferrals are not to exceed the maximum deferral as determined and adjusted by the Internal Revenue Service. The 401(k) Plan costs are expensed as funded. Employer contributions to this plan included in salaries and employee benefit costs were \$1,185, \$1,080, and \$998 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, \$124, (\$82) and \$271, respectively, has been recognized as a net credit, a net debit, and a net credit, respectively, to AOCI to reflect these elements.

In addition to the multi-employer 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 \$1,730 and a net underfunded status of \$1,730 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 \$94, \$126, and \$394 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 \$32,105. During 2018, \$9,429 of net new loans were made and net repayments totaled \$8,437. 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, \$404,948 of commitments to extend credit and \$318 of commercial letters of credit were outstanding. The reserve for unfunded commitments totaled \$1,500 at December 31, 2018, and was 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 \$3,963 with expiration dates ranging from January 1, 2019 to May 1, 2023. The maximum potential amount of future payments that may be required under these guarantees was \$3,963.

Note 12 — Income Taxes

The provision (benefit) for income taxes follows:

	Year Ended December 31,					
		2018	:	2017	2	2016
Current:						
Federal	\$	85	\$	347	\$	146
State		110		59		24
		195		406		170
Deferred:						
Federal		_		_		_
State		-		-		_
		_		_		_
Total provision (benefit) for income taxes	\$	195	\$	406	\$	170
• , , ,						

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

		υ	ecember 31	,	
	2018		2017		2016
Federal tax at statutory rate	\$ 14,298	\$	26,940	\$	20,131
State tax, net	_		_		16
Patronage distributions	(4,200)		(12,046)		(4,441)
Tax-exempt FLCA earnings	(12,794)		(21,230)		(16,714)
Dividends from tax-exempt FLCA	1,807		7,461		2,104
Change in deferred tax asset					
valuation allowance	991		(1,729)		(1,473)
Impact of tax reform	-		865		
Other	93		145		547
Provision (benefit) for income taxes	\$ 195	\$	406	\$	170
Other	\$	\$	145	\$	

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 2016

5,365 2.139

> 713 386

8,603

(3,488)

5,115 (3,256)

(1,859)

(5,115)

assets in 2017, the period of enactment. Deferred tax assets and liabilities are comprised of the following at:

Dec	ember 3
2018	2017
Deferred income tax assets:	
Allowance for loan losses \$ 5,030 \$	3,927
Net operating loss – carryforward 600	609
Nonaccrual loan interest 450	326
Other 266	264
Gross deferred tax assets 6,346	5,126
Less: valuation allowance (2,981)	(1,707)
Gross deferred tax assets, net of	
valuation allowance 3,365	3,419
Deferred income tax liabilities:	
Bank patronage allocation (2,681)	(2,829)
Loan fees (684)	(590)
Other –	_
Gross deferred tax liability (3,365)	(3,419)
Net deferred tax asset \$ - \$	-

At December 31, 2018, deferred income taxes have not been provided by the Association on approximately \$17.8 million 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 \$2,981, \$1,707 and \$3,488 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, if any, related to unrecognized tax benefits as a component of income tax expense. The tax years that remain open for federal and major state income tax jurisdictions are 2015 and forward.

Note 13 — Additional Financial Information

Quarterly Financial Information (Unaudited)

Net interest income Provision for (reversal of allowance for) loan losses Noninterest income (expense), net

		2018		
First	Second	Third	Fourth	Total
\$ 17,561	\$ 17,682	\$ 17,827	\$ 18,196	\$ 71,266
1,000	1,000	1,000	1,000	4,000
(2,946)	(4,656)	(4,122)	12,348	624
\$ 13,615	\$ 12,026	\$ 12,705	\$ 29,544	\$ 67,890

Net interest income Provision for (reversal of allowance for) loan losses Noninterest income (expense), net Net income

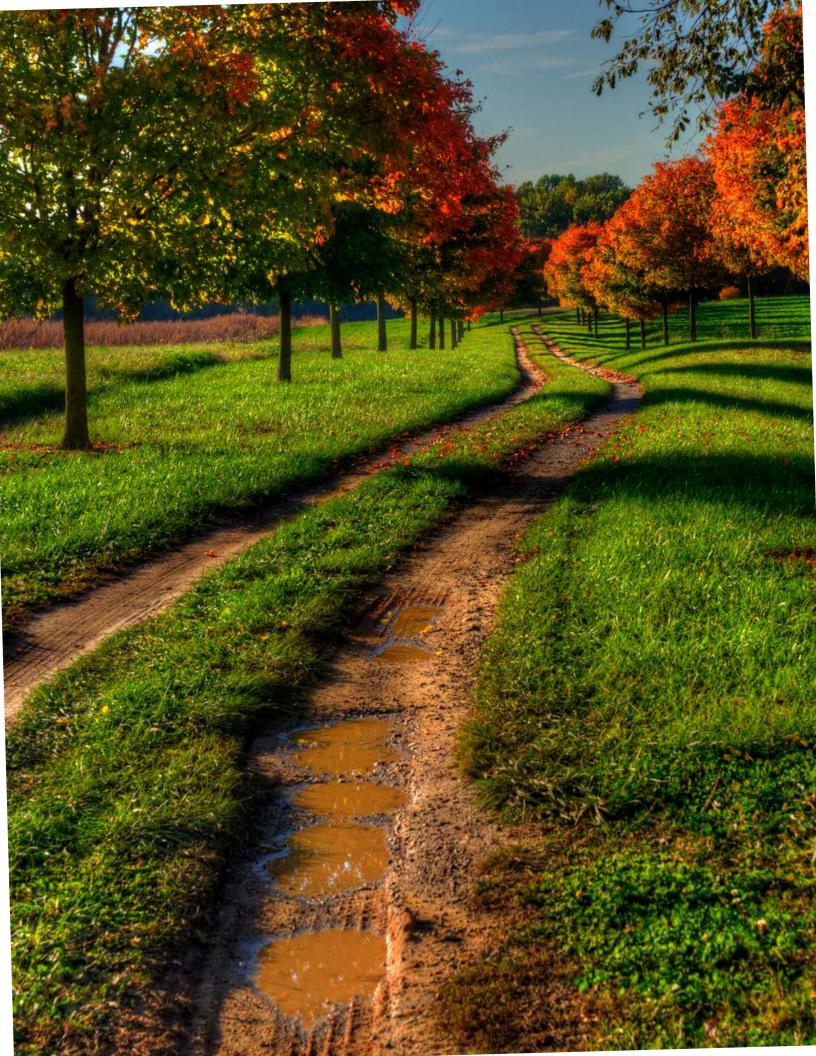
		2017				
First	First Second		Fourth	Total		
\$ 17,651	\$ 16,889	\$ 17,437	\$ 17,502	\$	69,479	
500	500	500	500		2,000	
(5,312)	(4,731)	(4,538)	23,669		9,088	
\$ 11,839	\$ 11,658	\$ 12,399	\$ 40,671	\$	76,567	

Net interest income Provision for (reversal of allowance for) loan losses Noninterest income (expense), net Net income

		2010		
First	Second	Third	Fourth	Total
\$ 16,308	\$ 16,482	\$ 17,044	\$ 17,086	\$ 66,920
_	_	_	750	750
(6,132)	(4,852)	(4,902)	7,062	(8,824)
\$ 10,176	\$ 11,630	\$ 12,142	\$ 23,398	\$ 57,346

Note 14 — Subsequent Events

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



BOARD of DIRECTORS



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Chairman



Brian L. Boyd Vice Chairman



Paul D. Baumgardner



Gary L. Grossnickle



Laura M. Heilinger



Dale R. Hershey



Walter C. Hopkins



Anthony M. III
Outside Director











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Michael S. Nelson



Dale J. Ockels



Douglas D. Scott



Alan N. Siegfried
Outside Director



Joseph D. Snapp



Fred N. West

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President &
Chief Executive Officer



Cathy L. Blair Sr. Vice President, Corporate Services and Risk



Stuart D. Cooper Sr. Vice President, Chief Lending Officer



Kurt H. FuchsSr. Vice President,
Legislative Affairs





Brian E. Rosati Sr. Vice President, Chief Financial Officer



William J. Rutter Sr. Vice President, Chief Credit Officer



Mark A. Schnebly Sr. Vice President, Director of Loan Operations



Cheryl L. Steinbacher
Sr. Vice President,
Director of Human
Resources and Training



Jim D. Aird Immediate Past Sr. Vice President, Division Manager



John E. Wheeler, Jr. Immediate Past Sr. Vice President, Chief Financial Officer



MidAtlantic Farm Credit is customer owned and customer focused. We work every day to:

- Give our customers best-in-class solutions for their financial needs.
- Manage their association efficiently, safely and soundly.
- Be dependable, in good times and bad, for this and future generations.
- Embrace a performance-oriented culture that is diverse, inclusive, and reflective of our marketplace.



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