# 2018 FINANCIAL STATEMENTS

FARM CREDIT EAST

# CONSOLIDATED FIVE-YEAR SUMMARY OF SELECTED FINANCIAL DATA

| (dollars in thousands) | December 31 | | | | |
|---|---|---|---|---|---|
| **BALANCE SHEET DATA** | **2018** | **2017** | **2016** | **2015** | **2014** |
| Loans | $6,964,353 | $6,605,200 | $6,288,175 | $6,094,507 | $5,788,644 |
| Less: Allowance for loan losses | 78,370 | 75,751 | 77,583 | 76,361 | 74,039 |
| Net loans | 6,885,983 | 6,529,449 | 6,210,592 | 6,018,146 | 5,714,605 |
| Cash | 23,395 | 48,736 | 22,581 | 14,463 | 17,959 |
| Investment in CoBank, ACB | 235,769 | 224,509 | 216,249 | 207,106 | 196,441 |
| Other property owned | 2,609 | 1,447 | 766 | 1,946 | 2,913 |
| Other assets | 116,764 | 106,837 | 91,332 | 84,645 | 78,689 |
| **Total assets** | $7,264,520 | $6,910,978 | $6,541,520 | $6,326,306 | $6,010,607 |
| Obligations with maturities of one year or less | $153,380 | $147,009 | $133,252 | $115,361 | $103,821 |
| Obligations with maturities greater than one year | 5,657,199 | 5,414,435 | 5,161,666 | 5,050,959 | 4,827,439 |
| **Total liabilities** | 5,810,579 | 5,561,444 | 5,294,918 | 5,166,320 | 4,931,260 |
| Capital stock and participation certificates | 15,079 | 14,808 | 14,338 | 14,124 | 13,913 |
| Additional paid-in capital | 229,198 | 229,198 | 229,198 | 229,198 | 229,198 |
| Allocated retained earnings | - | - | - | - | 6,048 |
| Unallocated retained earnings | 1,255,417 | 1,157,496 | 1,057,428 | 962,070 | 871,829 |
| Accumulated other comprehensive loss | (45,753) | (51,968) | (54,362) | (45,406) | (41,641) |
| **Total members' equity** | 1,453,941 | 1,349,534 | 1,246,602 | 1,159,986 | 1,079,347 |
| **Total liabilities and members' equity** | $7,264,520 | $6,910,978 | $6,541,520 | $6,326,306 | $6,010,607 |

| | For the Year Ended December 31 | | | | |
|---|---|---|---|---|---|
| **STATEMENT OF COMPREHENSIVE INCOME DATA** | **2018** | **2017** | **2016** | **2015** | **2014** |
| Net interest income | $208,523 | $197,405 | $185,442 | $177,679 | $174,099 |
| Provision for loan losses | 5,000 | - | - | 3,000 | - |
| Noninterest expenses, net | 24,308 | 36,056 | 32,681 | 28,876 | 25,218 |
| Provision for income taxes | 1,294 | 1,281 | 1,403 | 2,562 | 2,848 |
| **Net income** | $177,921 | $160,068 | $151,358 | $143,241 | $146,033 |
| **Comprehensive income** | $184,136 | $162,462 | $142,402 | $139,476 | $127,562 |
| **KEY FINANCIAL RATIOS** | | | | | |
| Return on average assets | 2.54% | 2.41% | 2.38% | 2.36% | 2.55% |
| Return on average members' equity | 12.57% | 12.24% | 12.40% | 12.64% | 13.81% |
| Net interest income as a percentage of average earning assets | 3.11% | 3.11% | 3.05% | 3.07% | 3.19% |
| Members' equity as a percentage of total assets | 20.01% | 19.53% | 19.06% | 18.34% | 17.96% |
| Debt to members' equity | 4.0:1 | 4.12:1 | 4.25:1 | 4.45:1 | 4.57:1 |
| Net (charge-offs) recoveries as a percentage of average loans | (0.04%) | 0.00% | (0.01%) | (0.02%) | 0.03% |
| Allowance for credit losses as a percentage of loans and accrued interest receivable | 1.27% | 1.31% | 1.37% | 1.43% | 1.47% |
| Common Equity Tier 1 (CET1) Capital | 17.72% | 17.34% | n/a | n/a | n/a |
| Tier 1 Capital | 17.72% | 17.34% | n/a | n/a | n/a |
| Total Capital | 18.92% | 18.59% | n/a | n/a | n/a |
| Tier 1 Leverage | 18.53% | 18.20% | n/a | n/a | n/a |
| Unallocated Retained Earnings and URE Equivalents (UREE) Leverage | 20.31% | 19.97% | n/a | n/a | n/a |
| Permanent capital ratio | 17.91% | 17.53% | 17.16% | 16.35% | 16.23% |
| Net income distribution | | | | | |
| Cash patronage declared | $65,000 | $60,000 | $56,000 | $53,000 | $51,000 |
| Special cash patronage | $15,000 | $ - | $ - | $ - | $ - |

# MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion summarizes the financial position and results of operations of Farm Credit East, ACA (Farm Credit East or the Association) as of December 31, 2018 with comparisons to prior years. The commentary includes material known trends, commitments, events, or uncertainties that have impacted or are reasonably likely to impact our financial condition and results of operations. The discussion and analysis should be read in conjunction with the accompanying consolidated financial statements, footnotes and other sections of this Annual Report. The accompanying consolidated financial statements were prepared under the oversight of the Audit Committee.

Farm Credit East's Annual and Quarterly reports to stockholders are available on the Association's website, farmcrediteast.com or can be obtained free of charge by calling the Association's main office at 860-741-4380. Annual reports are available 75 days after year end and quarterly reports are available 40 days after each calendar quarter end.

Dollar amounts are in thousands unless otherwise noted.

## BUSINESS OVERVIEW

Farm Credit East is a lending institution of the Farm Credit System (the System). We are one of 69 associations in the System which was created by Congress in 1916 and has served agricultural producers for over 100 years. The System's mission is to provide sound and dependable credit to American farmers, ranchers and producers or harvesters of aquatic products and farm-related businesses through a member-owned cooperative system. This is done by making loans and providing financial services. The Farm Credit Administration (FCA) is the System's independent safety and soundness federal regulator and was established to supervise, examine and regulate System institutions.

As a cooperative, we are owned by the members we serve. Our territory served extends across a diverse agricultural region covering the entire states of Connecticut, Maine, Massachusetts, Rhode Island and New Jersey, six counties of New Hampshire and all of New York except two counties. The Association makes short and intermediate term loans for agricultural production and long term real estate mortgage loans. Additionally, we provide other related services to our borrowers, such as financial recordkeeping, payroll, tax return preparation, tax planning, farm accounting software, fee appraisals, farm business consulting, leasing, credit life insurance and multi-peril crop insurance, as an agent. Our success begins with our extensive agricultural experience and knowledge of the market.

As part of the System, the Association obtains the funding for its lending and operations from CoBank, ACB (CoBank). CoBank is a cooperative of which Farm Credit East is an owner and member. The Association, along with other Farm Credit System (FCS) entities, also purchases payroll and other human resource services from CoBank. The Association is materially affected by CoBank's financial condition and results of operations. To obtain a free copy of the CoBank Annual Report to Stockholders, please contact us at one of our offices or by accessing CoBank's website at www.cobank.com. We purchase technology and other operational services from Farm Credit Financial Partners, Inc (FPI). We are an owner of FPI, along with other FPI customers.

## YEAR IN REVIEW

Farm Credit East benefits from serving a diverse portfolio of loans from the farm, forest and fishing industries, each of which has its own unique set of economic drivers. The operating climate for 2018 reflected this diversity. Consumer sensitive industries such as greenhouse, nursery, farm retail, fresh market vegetables, fresh market fruit and wineries generally benefited from a robust nonfarm economy. Rising consumer purchasing power and continued low unemployment were beneficial along with the ongoing trend to "buy local". Forest product industries were significantly helped by high lumber prices and improving markets for pulp and paper. Commodity industries such as dairy, cash grains, and cranberries continued to face significant headwinds during 2018 due to an imbalance in supply and demand. Tariffs and trade disputes, as well as competition from other global suppliers and growing world stocks of storable commodities all led to lower producer prices in these industries. Cost inflation has impacted purchased inputs, labor costs, health insurance and other services. Interest rates continued to rise with the Federal Reserve raising its benchmark rate four times during 2018.

Farm Credit East experienced another year of strong financial performance in 2018. Loan volume increased 5.4 percent to $7.0 billion as of December 31, 2018 with average loan volume for the year increasing 5.4 percent as well. Net income grew to $177.9 million in 2018, a $17.8 million increase compared to 2017. The 11.2 percent increase reflects higher net interest income and significantly higher noninterest income offset by slightly higher operating expenses. From its 2018 earnings, Farm Credit East declared two separate patronage dividends totaling $80.0 combined. $65 million will be distributed in cash in 2019. A special one-time cash patronage dividend of $15.0 million was paid in October 2018.

Overall loan quality measures for Farm Credit East remain strong. At December 31, 2018, 3.5 percent of loans were classified as adverse assets, compared to 3.7 percent at December 31, 2017. Nonaccrual loans increased to $45.8 million at December 31, 2018 from $35.6 million a year ago. The Association's allowance for credit losses totaled $88.9 million at December 31, 2018 or 1.3 percent of total loans.

Association capital levels remain well in excess of regulatory minimums. As of December 31, 2018, members' equity totaled $1.45 billion and our permanent capital and total regulatory capital ratios were 17.9 percent and 18.9 percent respectively at December 31, 2018, both well in excess of the regulatory minimums of 7.0 percent and 8.0 percent.

## THE NATIONAL ECONOMY

The United States economy continues to perform well. Growth in the U.S. gross domestic product (GDP) averaged 2.9 percent for 2018, according to recent estimates from the Conference Board. This represents a significant increase in economic growth from 2.2 percent in 2017. GDP growth is projected to fall slightly in 2019, but remain strong at 2.7 percent.

One of the more significant impacts of America's expanding economy is the tightening of the labor market. The official unemployment rate fell from an already low 4.1 percent in January of 2018, to 3.9 percent in December as job growth averaged more than 200,000 per month for the year. Many employers report having to act more aggressively to hire and retain workers as the nation reaches full employment. Over the year, average hourly earnings rose by 3.2 percent.

The strong economy was also reflected in consumer spending and sentiment. The Consumer Confidence Index was at 128.1 in December, down moderately from 136.4 in November. This compares to a value of 123.1 at the end of 2017. That high level of consumer confidence has translated into increased consumer spending, a key component of the overall economy. Overall consumer spending increased by 4.2 percent as of November, year-over-year.

Inflation has continued to increase, as might be expected with a more robust economy. Consumer price inflation, including food and energy, increased to 1.9 percent for 2018, with core inflation at 2.2 percent, slightly above the Federal Reserve's target of two percent. In response to these measures and a tightening job market, the Fed made four 0.25 percent interest rate moves over the course of the year, bringing the Federal Funds rate to 2.50 percent resulting in a prime rate of 5.50 percent as of December 2018. Early projections indicate that the Fed could make two or three 0.25 percent rate increases in 2019, although more recently the Fed has suggested a slower pace.

The housing market remains relatively strong, although rising interest rates have started to have an effect. While still well below peak levels, housing starts averaged 1.3 million for the first 11 months of 2018, in line with last year's average. The S&P/Case-Shiller 20-City Home Price Index rose by 5.2 percent from October 2017 to October 2018.

The U.S. dollar increased in value somewhat against foreign currencies in 2018. The dollar had a trade-weighted index value of 92.0 in December compared to 88.7 one year earlier, representing an increase of just under 4 percent. This, coupled with significant trade disputes and tariff escalation with several major trading partners could continue to impact agricultural exports.

Globally, economic growth is expected to slow somewhat in 2019. The overall world economy is projected to grow by 3.1 percent in the coming year, compared to 3.2 percent in 2018. Advanced economies, led by the United States, are expected to show stable growth at 2.4 percent, while emerging markets are cooling off slightly, and expected to grow by 3.7 percent, slower than in the past. For example, China is projected to see growth slow from 4.1 percent in 2018 to 3.8 percent in 2019.

Slowing growth in the developing world, rising agricultural productivity, and numerous ongoing trade issues have contributed to a domestic oversupply of some commodities. While trends of population growth and a growing middle class in the developing world support a long-term bullish outlook for U.S. agriculture, in the near term, many commodity markets are expected to remain soft. USDA long-term projections indicate reduced farm income through at least the next crop year before global food and biofuel demand equalizes with supply, and farm incomes begin to slowly rise.

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, 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 programs and commodity support programs, strengthen livestock disaster programs, and provides dairy producers with an updated voluntary margin coverage program that will provide more flexibility to dairy operations. The Farm Bill also authorizes the production and marketing of industrial hemp in accord with state or federal regulations.

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 and has been impacted by the January shutdown of portions of the Federal government.

## THE FARM ECONOMY

Net farm income in the Northeast region is estimated to have decreased in 2018, but is forecast to increase slightly in 2019. This projected increase is due partly to a modest increase in milk prices, as well as continued good performance by some segments of the nursery/greenhouse, agricultural retail, and forest products sectors. Nationally, net farm income has declined by nearly half since 2013, from $124 billion in 2013, to a low of $62 billion in 2016. 2018 net farm income is estimated by USDA at $66 billion.

## AGRICULTURAL OUTLOOK

*Dairy:* Northeast dairy farms continue to show a wide range of operating results, with many farms managing to remain profitable, while others struggle and some exit after several years of low milk prices. Most are expected to end 2018 at, or slightly above, break-even. Milk prices were extremely low during the first half of 2018, and showed modest improvement since then. Prices are projected to further increase modestly in 2019.

Despite relatively weak milk prices, national milk production increased about one percent in 2018, and there continues to be a supply/demand imbalance and marketing challenges in some regions.

*Cash Field Crops:* This category includes corn for grain, soybeans, hay, wheat and some small grains. 2018 was a good growing year for much of the country, which means ample supplies. While growing conditions were generally favorable throughout the Northeast, the excess moisture during the fall resulted in difficult harvest conditions and some quality issues. Cash field growers in general should be modestly above break-even for 2018, depending on their individual yields and marketing strategies.

Commodity prices have significantly declined from several years ago. 2019 pricing for corn is in the $3.75 - $3.90/bu. range and soybeans are in the $9.10 - $9.30/bu. range as markets remain soft for most grain and oilseed commodities. Energy-related input costs have risen over the past year. In general, margins have been narrowed due to the combination of the higher input costs and lower market prices.

*Timber and Forest Products:* The forest products industry encompasses a variety of business types, ranging from timberland ownership, to sawmills, to loggers. Most aspects of the industry experienced improved economic performance in 2018.

Lumber prices have shown significant increases in the last year, peaking in early summer 2018. Tight supplies around the country have kept orders and prices strong. Some of the market situation may be tied to strong housing demand as well as rebuilding efforts from natural disasters. Prices for softwood dimensional lumber remain solid going into 2019. Hardwood lumber, which is more susceptible to trade impacts has seen less of an increase.

Improving paper markets, especially containerboard and tissue, along with strong pulp markets have supported capital projects being undertaken at various Northeast pulp and paper mills. Subsequently, pulp markets are strengthening and harvest levels increasing in all species in the Northeast. Stumpage prices in most species and products have been moving upward, with further improvement expected.

Loggers in Northern Maine have faced substantial challenges in recent years, but ongoing improvement in pulp and paper markets has helped the industry. Those contractors that remain are seeing more opportunities to increase harvest levels, which will positively impact their profitability.

*Livestock:* In the Northeast, this is a very diverse sector ranging from beef or other protein producers, both full- and part-time, as well as equine, which itself can be broken down into racing/breeding, and boarding and training enterprises.

Most livestock product prices in 2018 averaged below prior year levels due to larger supplies. Recreational equine markets are supported principally by local recreational demand and nonfarm income, and have been tracking upward along with the general economy.

The New York horse racing industry has been doing well. Prices for state-bred thoroughbreds are at all-time highs, which is positive for breeding farms and the industry in general.

*Fruit:* This is a diverse category consisting of fresh market and processing apples, blueberries, grapes for juice, farm wineries, peaches, cranberries, and small fruits.

**Apples:** New York's 2018 apple production is estimated at 31 million bushels, roughly in line with the state's five year average, although yield varied by region. Despite some severe weather during the growing season, New York's Hudson Valley and some other regions harvested a large crop. Prices have generally held up well.

**Juice Grapes:** Favorable growing conditions led to a good crop in the East for 2018. New York produced 342 million pounds of grapes in 2018, slightly less than the last two years. While juice grape prices have been low for years, smaller harvests in Washington and Michigan could strengthen grower prices modestly.

**Wine:** Reports indicate that visitor counts continue to decline slightly due to an increasing number of craft beverage businesses across the region competing for customers, but overall retail spending has kept pace as price points have increased. Wine storage tanks are mostly full from 2017's bumper crop of wine grapes, which may lower bulk prices.

**Small Fruits:** New Jersey blueberry growers reported a mediocre year due to reduced yields. Meanwhile, in Maine, the wild blueberry market is oversupplied with prices at a 10-year low.

**Cranberries:** The cranberry market continues to struggle with oversupply, and open market prices are extremely low, well below cost of production. While this has been the case for several years for growers selling to independent handlers, the outlook for prices received by cooperative members is also lower for 2018-19 and the near term.

***Manufacturing, Marketing & Processing:*** Value-added businesses that process, market and/or otherwise add value to raw agricultural commodities are eligible for financing when they are owned by eligible borrowers, or when organized as a cooperative and financed by CoBank under its lending authorities. In addition to directly financing such eligible borrowers, Farm Credit East purchases loan participations through CoBank, other System entities and commercial banks in such eligible businesses.

Businesses range in size from small farm-based specialty food processors to large marketing cooperatives. These loans encompass diverse businesses including sawmills, dairy processing, fruit juice, canned and frozen vegetables, preparation of fresh vegetables and fruits, and seafood processing. There is a wide range of economic drivers and financial performance among these companies. These businesses are a critical component of the farm, forest and fishing economy as they create markets for commodities, value-added opportunities for producers and jobs and economic activity in local communities, often in rural areas.

***Greenhouse and Nursery:*** Greenhouse and Nursery growers throughout the Northeast generally reported a good 2018 season, although many had hoped for greater sales increases than what was realized. Growers have reported that demand and pricing trended slightly higher this season, particularly in nursery crops as landscapers have been active.

For garden centers and retail growers, results have been more varied in part as a result of variable weather in the spring and a wet fall. Competition from chain stores has been challenging. As with other agricultural sectors, labor supply continues to be a major issue.

***Aquatic / Fishing:*** The Maine lobster industry has started to see some decline in catch levels, while increased costs have squeezed margins. Scallop prices in 2018 were down slightly from last year, due to exceptional catch levels and flat demand. For groundfish, prices have held steady, and the catch has been good on the species they are allowed to land, as quotas remain limiting for this sector.

## LOAN PORTFOLIO

Loans outstanding were $7.0 billion at December 31, 2018 an increase of $359.2 million, or 5.4 percent from the December 31, 2017 balance of $6.6 billion. The combined period to period growth was driven by our branch based farm loan portfolio which grew $252.6 million, or 5.5 percent, as strong demand for agricultural products benefited our producers. Our residential country living mortgage program grew $75.9 million, or 10.5 percent, as reasonably strong demand continued in our Local Service Area (LSA) for this product and our capital markets group grew $36.2 million, or 2.8 percent.

Loans and accrued interest by loan type are reflected in the following table:

| December 31 | 2018 | | 2017 | | 2016 | |
|---|---|---|---|---|---|---|
| Real estate mortgage | $ 3,203,837 | 45.8% | $ 3,067,210 | 46.3% | $ 2,868,157 | 45.5% |
| Production and intermediate | 2,544,044 | 36.4 | 2,441,441 | 36.8 | 2,316,248 | 36.7 |
| Agribusiness | 1,060,466 | 15.2 | 954,114 | 14.4 | 979,907 | 15.5 |
| Rural infrastructure | 105,614 | 1.5 | 85,982 | 1.3 | 87,264 | 1.4 |
| Rural residential real estate | 56,276 | 0.8 | 56,766 | 0.9 | 55,960 | 0.9 |
| Other | 22,870 | 0.3 | 22,910 | 0.3 | - | 0.0 |
| Total Loans | $ 6,993,107 | 100.0% | $ 6,628,423 | 100.0% | $ 6,307,536 | 100.0% |

While we make loans and provide financially related services to qualified borrowers in agricultural and rural sectors and to certain related entities, our loan portfolio is diversified by loan participations purchased and sold, geographic locations served, commodities financed and loan size.

The Association purchases loan participations from other System and non-System entities to generate additional earnings and diversify risk related to existing commodities financed and our geographic area served. In addition we sell a portion of certain large loans to other System and non-System entities to reduce risk and comply with lending limits we have established. Our volume of participations purchased and sold as of December 31 are reflected in the following table.

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Purchased participations | $ 1,149,175 | $ 1,092,584 | $ 999,186 |
| Sold participations | $ 911,759 | $ 780,536 | $ 772,359 |

Loans are originated and serviced within the LSA in New York, New Jersey, Maine and throughout Southern New England. The geographic distribution of loans follows. As previously mentioned, we purchase loan participations outside our territory – which are included in other states in the following table.

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| New York | 49% | 48% | 48% |
| New Jersey | 11 | 12 | 12 |
| Maine | 8 | 7 | 7 |
| Massachusetts | 6 | 6 | 6 |
| Connecticut | 5 | 6 | 6 |
| Rhode Island, New Hampshire and other states | 21 | 21 | 21 |
| Total | 100% | 100% | 100% |

The following table shows the primary agricultural commodities produced by our borrowers based on the Standard Industrial Classification System (SIC) published by the federal government. This system is used to assign commodity or industry categories based on the primary business of the customer. A primary business category is assigned when the commodity or industry accounts for 50% or more of the total value of sales for a business; however, a large percentage of agricultural operations typically includes more than one commodity.

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Dairy | 23.0% | 23.1% | 22.7% |
| Cash Field | 10.1 | 10.5 | 10.6 |
| Timber | 10.0 | 10.0 | 11.0 |
| Livestock | 9.6 | 9.5 | 9.1 |
| Processing and Marketing | 9.1 | 8.0 | 8.3 |
| Fruit | 9.0 | 8.9 | 8.8 |
| Aquatic | 4.3 | 4.4 | 3.7 |
| Farm Services | 3.8 | 3.6 | 3.7 |
| Vegetables | 3.6 | 3.2 | 3.2 |
| Greenhouse | 3.3 | 3.5 | 3.8 |
| Nursery | 3.2 | 3.5 | 3.8 |
| Potato | 2.6 | 3.1 | 3.3 |
| All Other | 8.4 | 8.7 | 8.0 |
| Total | 100% | 100% | 100% |

## CREDIT COMMITMENTS

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 loan agreement contract. Commitments and letters of credit generally have fixed expiration dates or other termination clauses and may require payment of a fee by the borrower. We may also participate in standby letters of credit to satisfy the financing needs of our borrowers. These standby letters of credit are irrevocable agreements to guarantee payments of specified financial obligations. The following table summarizes the maturity distribution of unfunded credit commitments on loans at December 31, 2018.

| | Less than 1 year | 1 – 3 years | 3 – 5 years | Over 5 years | Total |
|---|---|---|---|---|---|
| Commitments to extend credit | $ 1,259,887 | $ 520,570 | $ 218,265 | $ 21,130 | $ 2,019,852 |
| Standby letters of credit | 20,845 | 2,330 | - | - | 23,175 |
| Commercial letters of credit | 668 | 19,566 | 11,143 | 6,599 | 37,976 |
| Total commitments | $ 1,281,400 | $ 542,466 | $ 229,408 | $ 27,729 | $ 2,081,003 |

Since many of these commitments are expected to expire without being drawn upon, the total commitments do not necessarily represent future cash requirements.

## HIGH RISK ASSETS

Nonperforming loan volume is comprised of nonaccrual loans, accruing restructured loans, and loans 90 days past due still accruing interest and are referred to as impaired loans. Nonaccrual loans represent all loans where there is a reasonable doubt as to collection of principal and/or interest. High Risk assets consist of impaired loans and other property owned. The following table summarizes high risk assets and delinquency information:

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Nonaccrual | $ 45,771 | $ 35,600 | $ 53,172 |
| Accruing loans 90 Days or more past due | 757 | 1,821 | 2,632 |
| Accruing restructured loans | 617 | 643 | 68 |
| Total Impaired Loans | $ 47,145 | $ 38,064 | $ 55,872 |
| Other Property Owned | 2,609 | 1,447 | 766 |
| Total High Risk Assets | $ 49,754 | $ 39,511 | $ 56,638 |
| Impaired Loans to Total Loans | 0.68% | 0.58% | 0.89% |
| High Risk Assets to Total Loans | 0.71% | 0.60% | 0.90% |
| Nonaccrual Loans to Total Loans | 0.66% | 0.54% | 0.85% |
| Delinquencies as a % of performing loans | 0.40% | 0.21% | 0.28% |

The increase in high risk assets was largely due to a higher level of nonaccrual loans in our portfolio. Nonaccrual loans represent all loans where there is a reasonable doubt as to the collection of all principal and/or interest. Nonaccrual loans totaled $45.8 million, an increase of $10.2 million from the end of 2017. The increase is primarily a result of credit quality deterioration impacting a small number of customer in dairy, cash field crops and logging. These increases were somewhat offset by a few credit relationships paying out or being reinstated to accrual status.

Other property owned is comprised of real or personal property that has been acquired through foreclosure or deed in lieu of foreclosure. At December 31, 2018 other property owned totaled $2.6 million, an increase of $1.2 million from the end of 2017. The increase during 2018 reflects eight properties acquired during the year totaling $3.4 million which were offset by nine properties disposed of totaling $2.2 million. Other property owned was $0.8 million at December 31, 2016. The Association is actively marketing all other property owned assets and intends to dispose of all properties in an orderly and timely fashion.

For additional loan type information, see Note 3 to the consolidated financial statements "Loans, Loan Quality and Allowance for Credit Losses".

## CREDIT QUALITY CONDITIONS AND MEASUREMENTS IN THE LOAN PORTFOLIO

We review the credit quality of the loan portfolio on an on-going basis as part of our risk management practices. Each loan is classified according to the Uniform Classification System (UCS) which is used by all System institutions.

The following table presents statistics based on UCS classified as a percent of total loans and related accrued interest.

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Acceptable | 92.20% | 93.54% | 92.29% |
| Special mention | 4.27 | 2.77 | 4.33 |
| Substandard/doubtful | 3.53 | 3.69 | 3.38 |
| Total | 100.00% | 100.00% | 100.00% |

During 2018 loans classified Acceptable decreased by 1.3 percent of total loans while loans classified as Special Mention increased by 1.5 percent of total loans, due to continuing low milk prices and other challenges impacting a small number of loans to dairy, cash grains and some logging customers. The level of adversely classified loans ("Substandard", "Doubtful" and "Loss") as a percent of total loans and related accrued interest decreased slightly from 3.7 percent a year ago to 3.5 percent at December 31, 2018. While overall loan quality measures remain strong at December 31, 2018, we do expect some further deterioration as we enter 2019 due to low commodity prices and other factors impacting our customers.

## CREDIT RISK MANAGEMENT

Credit risk arises from the inability of an obligor to meet its repayment obligation and exists in our outstanding loans, unfunded loan commitments and letters of credit. We manage credit risk associated with our lending activities through an assessment of the credit risk profile of each individual borrower based on an analysis of the borrower's credit history, repayment capacity, financial position and collateral. Repayment capacity focuses on the borrower's ability to repay the loan based on cash flows from operations or other sources of income. The Association also manages credit risk by establishing limits for single borrower hold positions and industry concentrations based on underlying risks. The geographic and commodity diversity in the loan portfolio, coupled with disciplined underwriting reduces the potential for significant credit losses.

To further manage portfolio risk, the Association is a Preferred Lender under the USDA's Farm Service Agency guarantee program and as of December 31, 2018 has guarantees totaling $251.3 million. In addition, the Association has loan guarantees with State agencies totaling $16.1 million. The Association also participates in the Farmer Mac Long Term Standby Commitment to Purchase Program and as of December 31, 2018, commitments totaling $16.9 million were in this program.

## ALLOWANCE FOR CREDIT LOSSES

The allowance for loan losses reflects an adjustment to the carrying value of our total loan portfolio for inherent credit losses related to outstanding balances. We provide line of credit financing to customers to cover short-term and variable needs. As a result, Farm Credit East has significant unfunded commitments for which we maintain a separate reserve. This reserve is reported as a liability on the Association's consolidated balance sheet. We refer to the combined amounts of the allowance for loan losses and the reserve for unfunded commitments as the allowance for credit losses (ACL).

The ACL reflects our assessment of the risk of probable and estimable loss related to outstanding balances and unfunded commitments in our loan portfolio. The ACL is maintained at a level consistent with this assessment, considering such factors as loss experience, portfolio quality, portfolio concentrations, current and historical production conditions, modeling imprecision, our mission and economic and environmental factors specific to our portfolio segments.

The ACL is based on regular evaluation of our loan portfolio. Our methodology consists of analysis of specific individual loans and evaluation of the remaining portfolio. Senior level staff approves specific loan reserve related activity. The Audit Committee of the Board of Directors reviews and approves the allowance for credit losses on a quarterly basis. The allowance for credit losses at each period end was considered by management to be adequate.

Comparative allowance coverage, as a percentage of key loan categories, are reflected in the following table.

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Components: | | | |
| Allowance for loan losses | $ 78,370 | $ 75,751 | $ 77,583 |
| Reserve for unfunded commitments | 10,483 | 11,044 | 8,932 |
| Allowance for Credit Losses (ACL) | $ 88,853 | $ 86,795 | $ 86,515 |
| ACL as a percentage of: | | | |
| Total loans | 1.28% | 1.31% | 1.38% |
| Nonaccrual loans | 194.13% | 243.81% | 162.71% |
| Impaired loans | 188.47% | 228.02% | 154.85% |

The Association recognized a provision for loan losses of $5.0 million in 2018 compared to $0 provision for loan losses being recorded in 2017 and 2016. The allowance for credit losses increased as net charge offs of $2.9 million were recorded and offset by the $5.0 million provision for loan losses during 2018.

For further discussion regarding the allowance for credit losses, refer to Note 3 to the consolidated financial statements, "Loans, Loan Quality and Allowance for Credit Losses".

## RESULTS OF OPERATIONS

Net income was $177.9 million for the twelve months ending December 31, 2018 an increase of $17.8 million, or 11.2 percent, from $160.1 million for 2017. Net income was $151.4 million for the twelve months ending December 31, 2016. Our strong earnings primarily reflect higher net interest income and significantly higher noninterest income, offset by slightly higher operating expenses. The following table reflects key performance results *($ in millions)*:

| For the Year Ended December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Net income | $ 177.9 | $ 160.1 | $ 151.4 |
| Net interest income | $ 208.5 | $ 197.4 | $ 185.4 |
| Net interest margin | 3.11% | 3.11% | 3.05% |
| Return on average assets | 2.54% | 2.41% | 2.38% |
| Return on average members equity | 12.57% | 12.24% | 12.40% |

Changes in the significant components impacting the results of operations are summarized in the following table *($ in millions)*:

| Increase (decrease) due to: | 2018 versus 2017 | 2017 versus 2016 |
|---|---|---|
| Net interest income | $ 11.1 | $ 12.0 |
| Provision for loan losses | (5.0) | - |
| Noninterest income | 11.9 | 1.8 |
| Noninterest expenses | (0.2) | (5.2) |
| Provision for income taxes | - | 0.1 |
| Total | $ 17.8 | $ 8.7 |

### *NET INTEREST INCOME*

Net interest income increased $11.1 million or 5.6% to $208.5 million in 2018, compared to $197.4 million in 2017. Net interest income was $185.4 million for the twelve months ending December 31, 2016. The following table quantifies the changes in net interest income *($ in millions)*:

| Changes in net interest income due to: | 2018 versus 2017 | 2017 versus 2016 |
|---|---|---|
| Volume | $ 6.8 | $ 5.1 |
| Nonaccrual and other income | (0.2) | 1.7 |
| Rates and margin | 11.4 | 6.9 |
| Hedging activity | (6.9) | (1.7) |
| Total | $ 11.1 | $ 12.0 |

The Association's average loan rate was 5.08 percent in 2018, up from 4.45 percent in 2017 while the Association's average cost of debt funding increased by similar amounts to 2.40 percent in 2018 compared to 1.76 percent in 2017. Interest income and cost of debt are both higher due to increases in publicized short term rates in 2018 which increases both Farm Credit East's and our customer's cost of borrowing. The average interest rate spread over cost of funding decreased one basis point year over year from 2.69 percent to 2.68 percent. The decrease in yields from 2017 was due to slightly lower average yield on variable rate loans, reflective of spread compression from increased competition for the business of our customers. Of the $11.1 million increase from 2017, $6.8 million was due to increased debt funded loan volume. Collection of nonaccrual and other interest income decreased by $0.2 million over 2017. The increased return on equity offset by slightly lower margin over cost of funding was $11.4 million while the Association's hedging strategy reduced net interest income by $5.3 million, a $6.9 million decrease from 2017.

Information regarding the average daily balances and average rates earned and paid on our portfolio are presented in the following table:

| For the Year Ended December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Net interest income | $ 208,523 | $ 197,405 | $ 185,442 |
| Average balances: | | | |
| Average interest earning loans | $ 6,704,670 | $ 6,352,757 | $ 6,075,120 |
| Average interest bearing liabilities | $ 5,484,438 | $ 5,233,586 | $ 5,049,174 |
| Average yields and rates: | | | |
| Interest earning loan yield | 5.08% | 4.45% | 4.03% |
| Rate paid on interest bearing liabilities | 2.40% | 1.76% | 1.31% |
| Interest rate spread | 2.68% | 2.69% | 2.72% |
| Net interest margin (interest income as a percentage of average interest earning loans) | 3.11% | 3.11% | 3.05% |

### PROVISION FOR LOAN LOSSES/ (LOAN LOSS REVERSALS)

We monitor our loan portfolio on a regular basis to determine if any increase through provision for loan losses or decrease through a loan loss reversal in our allowance for loan losses is warranted based on our assessment of the probable and estimable losses inherent in our loan portfolio. The allowance for loan losses covers the funded portion of loans outstanding, while the reserve for unfunded commitments covers losses on unfunded lending commitments.

Farm Credit East recorded a provision for loan losses of $5.0 million for the year ended December 31, 2018. This provision for loan losses is primarily due to a higher level of nonaccrual loans and loan charge-offs as well as a slight deterioration in credit quality impacting a small number of customers. The Association recognized no provision for loan losses in 2017 or 2016.

### NONINTEREST INCOME

Noninterest income increased $11.9 million, or 20.0 percent, to $71.7 million for the twelve months ended December 31, 2018 as compared to $59.8 million in 2017. Noninterest income is primarily composed of patronage income, financially related services income, loan fees and compensation on participation loans. Noninterest income totaled $58.0 million for the twelve months ending December 31, 2016.

Patronage income from CoBank is a significant part of the Association's noninterest income. Patronage income is based on the average balance of the Association's note payable to CoBank. For the year ended December 31, 2018, CoBank patronage income totaled $24.7 million, an increase of $1.2 million from $23.5 million in 2017. The patronage rates paid by CoBank on the Association's note payable were 45 basis points in 2018, 2017 and 2016. Patronage income from CoBank was $22.7 million for the twelve months ending December 31, 2016.

In September 2018, CoBank paid a one-time special patronage distribution of $4.1 million compared to $0 million in 2017 and 2016.

Farm Credit East also receives patronage income from CoBank and other Farm Credit entities that purchased interests in loans originated by the Association. For the twelve months ended December 31, 2018, this revenue totaled $6.4 million compared to $6.1 million in 2017 and $5.3 million in 2016.

Noninterest income also includes fees for financially related services, loan fees, compensation on participation loans and other noninterest income. These noninterest income sources totaled $36.5 million for the twelve months ending December 31, 2018 an increase of $6.3 million, or 20.9 percent from 2017. Included in noninterest income is $5.1 million in refunds received for a portion of excess Insurance Fund premiums paid in prior years. These refunds are a nonrecurring item in 2018 and represents the Association's portion of the excess in the System-wide Insurance Fund above the required minimum secure base amount. Financially related services fee income is the largest component with $26.4 million in revenue for the year ended December 31, 2018 an increase of $1.0 million, or 4.0 percent, compared to 2017. Our continued marketing efforts for financially related services have resulted in more customers utilizing our farm records, business consulting, appraisal, and tax services. These other noninterest income items were $30.0 million for the twelve months ending December 31, 2016.

### NONINTEREST EXPENSE

Noninterest expense totaled $96.0 million for the twelve months ended December 31, 2018 an increase of $0.2 million, or 0.2 percent, from $95.8 million in 2017. Noninterest expense was $90.7 million for the twelve months ending December 31, 2016.

Salaries and employee benefits is the primary component of noninterest expense and totaled $59.9 million for the twelve months ended December 31, 2018, a decrease of $0.3 million from $60.2 million for the twelve months ended December 31, 2017. The decrease is primarily the result of lower pension plan expenses, several planned staff retirements and market value adjustments associated with deferred compensation accounts offset by planned merit and incentive compensation increases reflective of strong business and financial performance. Salary and employee benefits were $55.8 million for the twelve months ended December 31, 2016.

Information technology services were $12.2 million for the twelve months ended December 31, 2018, an increase of $1.2 million from the twelve months ended December 31, 2017. The increase is primarily a result of higher expenses for new software, digital and cyber security initiatives. Information technology services were $9.1 million for the twelve months ended December 31, 2016. Insurance fund premiums were $4.5 million in 2018, a decrease of $2.7 million from December 31, 2017. Insurance fund premium rates are set by the Farm Credit System Insurance Corporation and were 9 basis points of adjusted insured debt obligations during 2018 due to expected lower system loan volume in 2018. The rate was 15 basis points in 2017. Insurance fund premiums were $7.9 million in 2016 and the rate was 17 basis points. Noninterest expenses also include occupancy and equipment expense, other operating expenses and other property owned expenses.

### *PROVISION FOR INCOME TAXES*

The Tax Cuts and Jobs Act of 2017 (TCJA) was enacted in late 2017 which among other things lowered the federal corporate tax rate from 35 percent to 21 percent beginning in 2018.

The provision for income taxes was essentially unchanged at $1.3 million for the twelve months ended December 31, 2018. While Association income increased during 2018, the lower corporate tax rate offset any additional tax expense. The effective tax rate was 0.7 percent for the year ended December 31, 2018, as compared to 0.8 percent for 2017. The Association's effective tax rate is significantly less than the applicable federal and state statutory income tax rates due to tax deductible patronage distributions and our tax exempt business activities. For the twelve months ended December 31, 2016 the provision for income taxes was $1.4 million.

For additional information, see Note 9 "Income Taxes" to the consolidated financial statements.

## PATRONAGE DISTRIBUTIONS

The Association has a patronage program that allows it to distribute its available net earnings to its stockholders. The patronage program consists of a qualified cash distribution and a non-qualified distribution. This program provides for the application of net earnings in the manner described in our Bylaws. When determining the amount and method of patronage to be distributed, the Board considers the setting aside of funds to increase retained earnings to meet capital adequacy standards established by Farm Credit regulations, to meet our internal capital adequacy standards to support competitive pricing at targeted earnings levels, and for reasonable reserves. Patronage is distributed in accordance with cooperative principles, as determined by the Board and in accordance with Association by-laws. The distributions are sent to eligible customers shortly after the end of the year.

For the year ended December 31, 2018, the Association declared two separate qualified patronage dividends totaling $80.0 million combined. $65.0 million will be distributed in cash in 2019. A special one-time cash patronage dividend of $15.0 million was paid in October 2018. For the years ended December 31, 2017 and 2016, the Association declared a $60.0 million and $56.0 million in qualified patronage dividends respectively which were distributed in cash in February of the following year.

## LIQUIDITY AND FUNDING SOURCES

The Association's primary source of funding is CoBank. Funds are obtained through borrowing on a revolving line of credit governed by a General Financing Agreement. At December 31, 2018, the Association's notes payable to CoBank totaled $5.7 billion which is a $0.3 billion increase from $5.4 billion at December 31, 2017. The Association's note payable was $5.2 billion at December 31, 2016.

The line of credit available to the Association is formula-driven based on Association loan volume and credit quality. Because of the funding relationship with CoBank, the Association does not maintain large balances in cash or other liquid investments. Substantially all of the Association's assets are pledged as security to CoBank. The Association is in full compliance with its financing agreement with CoBank and has capacity under the agreement to borrow funds needed to meet anticipated loan demand.

The Association minimizes its interest rate risk by funding loans with debt from CoBank that has similar pricing characteristics as the assets being funded. As a result, the Association is not subject to substantial interest rate risk. The Association's loan portfolio consisted of the following breakdown by pricing type:

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Pricing Type: | | | |
| Variable rate loans | 47.8% | 51.6% | 55.5% |
| Indexed loans (Prime, ARM, LIBOR) | 17.9% | 16.1% | 17.0% |
| Fixed rate loans | 34.3% | 32.3% | 27.5% |

The interest rates charged to the Association on debt, by and large, have the same pricing characteristics as the loans funded. For example, fixed rate loans are funded with fixed rate debt with the same term. The Association's goal is to fund fixed and indexed rate loans with 100 percent matching debt to the extent possible.

The Association's equity is invested in variable rate loans. The yield on equity funded loans is the average variable portfolio rate. As rates rise or fall, earnings on equity funded loans go up and down. The Association also uses interest rate contracts (swaps) with CoBank to better manage its equity investment in variable rate loans. When rates are low, the Association earns more on its interest rate contracts, offsetting lower earnings on its equity position and serving to stabilize net interest income. (Conversely, when rates rise, the Association will earn less on its contracts and more on its equity position). The average length of the Association's contracts is 18 months. The effect of this hedging strategy diminishes if rates stay stable for two or more years.

The swaps also extend the duration of the Association's equity position resulting in increased earnings from the normal yield curve and some change in the value of equity due to changes in interest rates. The Association's interest rate hedging program is summarized in the following table *($ in millions)*:

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Swap notional amount | $ 1,025.0 | $ 970.0 | $ 946.0 |
| Derivative Liabilities, net | $ (5.4) | $ (7.0) | $ (3.7) |
| Cash (payments) receipts | $ (5.2) | $ 0.8 | $ 3.5 |

For additional information, see Note 14 to the consolidated financial statements "Fair Value Measurements".

## MEMBERS' EQUITY

Total members' equity totaled $1.5 billion at December 31, 2018. Members' equity at December 31, 2018 was comprised of unallocated retained earnings of $1.3 billion, additional paid-in capital of $229.2 million, customer capital stock and participation certificates of $15.1 million and accumulated other comprehensive loss of $45.8 million.

## CAPITAL PLAN AND REGULATORY REQUIREMENTS

The Board of Directors establishes a formal capital adequacy plan that addresses capital goals in relation to risks. The capital adequacy plan assesses the capital level necessary for financial viability and to provide for growth. Our plan is updated annually and approved as part of the Association's annual Business Plan.

Effective January 1, 2017, Farm Credit East implemented new regulatory capital requirements (the New Capital Regulations), as required by the Farm Credit Administration (FCA). The New Capital Regulations set the following minimum risk-based requirements:

- A CET1 Capital Ratio of 4.5 percent;
- A Tier 1 Capital Ratio (CET 1 capital plus additional tier 1 capital) of 6 percent; and
- A Total Capital Ratio (tier 1 plus tier 2) of 8 percent.

The New Capital Regulations also set a minimum tier 1 leverage ratio (tier 1 capital divided by total assets) of 4 percent, of which at least 1.5 percent must consist of unallocated retained earnings (URE) and URE equivalents, which are nonqualified allocated equities with certain characteristics of URE.

The New Capital Regulations establish a capital cushion (capital conservation buffer) of 2.5 percent above the risk-based CET1, tier 1 and total capital requirements. In addition, the New Capital Regulations establish a leverage capital cushion (leverage buffer) of 1 percent above the tier 1 leverage ratio requirement. If capital ratios fall below the regulatory minimum plus buffer amounts, cash patronage distributions and discretionary senior officer bonuses are restricted or prohibited without prior FCA approval. The New Capital Regulations establish a three-year phase-in of the capital conservation buffer beginning January 1, 2017. There is no phase in of the leverage buffer.

As shown in the following table, at December 31, 2018 and December 31, 2017, our capital and leverage ratios exceeded regulatory minimums. If these capital standards are not met, the FCA can impose restrictions, including limiting our ability to pay patronage distributions and retire equities.

| | 2018 | 2017 | FCA Minimum with Buffer |
|---|---|---|---|
| Common Equity Tier 1 Capital Ratio (CET1) | 17.72% | 17.34% | 7.00% |
| Tier 1 Capital Ratio | 17.72% | 17.34% | 8.50% |
| Total Regulatory Capital Ratio (TRC) | 18.92% | 18.59% | 10.50% |
| Tier 1 Leverage Ratio | 18.53% | 18.20% | 5.00% |
| URE Leverage Ratio | 20.31% | 19.97% | 1.50% |
| Permanent Capital | 17.91% | 17.53% | 7.00% |

FCA regulations in effect through December 31, 2016 included requirements to maintain regulatory capital at or above minimum levels for our permanent capital ratio, total surplus ratio and core surplus ratio. As displayed in the flowing table, at December 31, 2016, 2015 and 2014, the Association exceeded the minimum regulatory capital requirements effective through December 31, 2016

| | Permanent Capital Ratio (7.0%) | Total Surplus Ratio (7.0%) | Core Surplus Ratio (3.5%) |
|---|---|---|---|
| 2016 | 17.16% | 16.93% | 16.93% |
| 2015 | 16.35% | 16.12% | 16.12% |
| 2014 | 16.23% | 15.99% | 15.95% |

For additional information, see Note 7 of the consolidated financial statements "Members' Equity".

## CAPITAL ADEQUACY AND BUSINESS PLANNING

In conjunction with the annual business plan and financial planning process, the Board of Directors reviews and approves a capital adequacy plan which includes target levels for capital and capital ratio minimum baselines. The capital adequacy plan assesses the capital level necessary for financial viability and to provide growth. Effective January 1, 2019, the Board established capital ratio baselines under the New Capital Regulations as follows:

| | 2019 Target | Policy Minimum | FCA Minimum with Buffer |
|---|---|---|---|
| Common Equity Tier 1 Capital Ratio (CET1) | 17.98% | 12.00% | 7.00% |
| Tier 1 Capital Ratio | 17.98% | 13.50% | 8.50% |
| Total Regulatory Capital Ratio (TRC) | 19.18% | 15.50% | 10.50% |
| Tier 1 Leverage Ratio | 18.85% | 6.00% | 5.00% |
| URE Leverage Ratio | 20.63% | 2.50% | 1.50% |
| Permanent Capital | 18.18% | 12.00% | 7.00% |

## REGULATORY MATTERS

As of December 31, 2018, the Association had no enforcement actions in effect and FCA took no enforcement actions on the Association during the year.

## CRITICAL ACCOUNTING ESTIMATES

Management's discussion and analysis of the financial condition and results of operations are based on the Association's consolidated financial statements, which we prepare in accordance with accounting principles generally accepted in the United States of America. In preparing these financial statements, we make estimates and assumptions. Our financial position and results of operations are affected by these estimates and assumptions, which are integral to understanding reported results.

Note 2 to the accompanying consolidated financial statements contains a summary of our significant accounting policies. Of these policies, we consider certain ones critical to the presentation of our financial condition, as they require us to make complex or subjective judgments that affect the value of certain assets and liabilities. Some of these estimates relate to matters that are inherently uncertain. Most accounting policies are not, however, considered critical. Our critical accounting policies relate to determining the level of our allowance for credit losses and the valuation of our derivative instruments with no ready markets. Management has reviewed these critical accounting policies with the Audit Committee of the Board of Directors.

## BUSINESS OUTLOOK

We have been experiencing a cyclical downturn in many agricultural commodity markets for the past year, and that trend is expected to continue in 2019. Producers will have to weather a period of soft prices for many crops and animal proteins, including dairy.

Things look better for the general U.S. economy. GDP growth for 2019 is forecast at about 2.7 percent. Interest rates, while still low by historical standards, have risen and more rate increases could occur in 2019. The strong job market has boosted workers' earnings, which has led to increased consumer spending. While there are some signs that indicate a slowing of the U.S. economy, it is still likely to post above-trend growth in the coming year.

Global economic growth appears to be reaching a plateau, but economic indicators suggest only a modest slowdown. Global growth in 2019 is forecast to fall slightly to 3.1 percent from 3.2 percent in 2018.

Thus, the overall outlook for Northeast producers is mixed. Continued positive economic growth in the U.S. and abroad will be good for domestic demand for agricultural products, though long global supplies of many commodities will continue to put downward pressure on producer prices.

## FORWARD-LOOKING STATEMENTS

Certain information included in this report 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 "believes," "could," "estimates," "anticipates," "may," "should," "will," or other variations of these terms or similar expressions are intended to identify forward-looking statements. These statements are based on assumptions and analyses made in light of experience, historical trends, current conditions, and expected future developments.

However, actual results and developments may differ materially from our expectations and predictions due to a number of risks and uncertainties, many of which are beyond our control. These risks and uncertainties include, but are not limited to:

- political, legal, regulatory and economic conditions and developments in the United States and abroad;
- economic fluctuations in the agricultural, rural utility, international, and farm-related business sectors;
- weather, 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/or the Farm Credit System; and,
- actions taken by the Federal Reserve System in implementing monetary policy.

# REPORT OF MANAGEMENT

The consolidated financial statements of Farm Credit East, ACA (the Association) are prepared by management, who is responsible for their integrity and objectivity, including amounts that must necessarily be based on judgments and estimates. The consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America as appropriate in the circumstances. The consolidated financial statements, in the opinion of management, fairly present the financial position of Farm Credit East. Other financial information included in this 2018 annual report is consistent with that in the consolidated financial statements.

To meet its responsibility for reliable financial information, management depends on the Association's accounting and internal control systems which have been designed to provide reasonable, but not absolute, assurance that assets are safeguarded and transactions are properly authorized and recorded. The systems have been designed to recognize that the cost must be related to the benefits derived. To monitor compliance, the Association's internal auditors and risk management staff perform audits of the accounting records, review accounting systems and internal controls, and recommend improvements as appropriate. The consolidated financial statements are audited by PricewaterhouseCoopers LLP, our independent auditors, who consider internal controls in accordance with auditing standards generally accepted in the United States of America. The Association is also examined by the Farm Credit Administration.

The chief executive officer, as delegated by the Board of Directors, has overall responsibility for the Association's system of internal controls and financial reporting, subject to the review of the Audit Committee of the Board of Directors. The Audit Committee consults regularly with management and meets periodically with the independent auditors and internal auditors to review the scope and results of their examinations. The Audit Committee reports regularly to the Board of Directors. Both the independent auditors and the internal auditors have direct access to the Audit Committee.

The undersigned certify the 2018 Annual Report to Stockholders has been reviewed and prepared in accordance with all applicable statutory or regulatory requirements and that the information contained herein is true, accurate, and complete to the best of our knowledge and belief.

William J. Lipinski
Chief Executive Officer

Matthew W. Beaton
Chair of the Board

Andrew N. Grant
Chief Financial Officer

March 11, 2019

# MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Farm Credit East'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 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.

William J. Lipinski
Chief Executive Officer

Andrew N. Grant
Chief Financial Officer

March 11, 2019

# REPORT OF AUDIT COMMITTEE

The consolidated financial statements were prepared under the oversight of the Audit Committee (Committee). The Committee is composed of five members from the Farm Credit East, ACA (Association) Board of Directors. In 2018, the Committee met five times in person and held one conference call. The Committee oversees the scope of the Association's internal audit program, the independence of the outside auditors, the adequacy of the Association's system of internal controls and procedures, and the adequacy of management's action with respect to recommendations arising from those auditing activities. The Committee's responsibilities are described more fully in the Association's Internal Control Policy and the Audit Committee Scope of Responsibility. In addition, the Committee approved the appointment of PricewaterhouseCoopers LLP (PwC) as our independent auditors for 2018.

Management is responsible for the Association's internal controls and the preparation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America. PwC is responsible for performing an independent audit of the Association's consolidated financial statements in accordance with generally accepted auditing standards in the United States of America and to issue a report thereon. The Committee's responsibilities include monitoring and overseeing these processes.

In this context, the Committee reviewed and discussed the audited consolidated financial statements for the year ended December 31, 2018, with management. The Committee also receives from PwC the matters required to be discussed by Statements on Auditing Standards. Both PwC and the Association's internal auditors directly provide reports on significant matters to the Committee.

The Committee approves all non-audit services provided by PwC. In 2018 PwC was engaged for tax services and the Committee concluded these services were not incompatible with maintaining the auditors' independence.

Based on the foregoing review and discussions, and relying thereon, the Committee recommended that the Board of Directors include the audited consolidated financial statements in the Annual Report for the year ended December 31, 2018 and for filing with the FCA.

John P. Knopf

John P. Knopf
Audit Committee Chair

Other Committee Members:
Tim C. Chan
Henry L. Huntington
Douglas W. Shelmidine
Peter H. Triandafillou

March 11, 2019

pwc

## Report of Independent Auditors

To the Board of Directors of Farm Credit East, ACA

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

### *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 Company'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 Company'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 Farm Credit East, ACA and its subsidiaries as of December 31, 2018, 2017, and 2016, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

PricewaterhouseCoopers LLP

Hartford, Connecticut
March 11, 2019

*PricewaterhouseCoopers LLP, 185 Asylum Street, Suite 2400, Hartford, CT 06103-3404*
*T: (860) 241 7000, F: (860) 241 7590, www.pwc.com/us*

## CONSOLIDATED BALANCE SHEETS

| December 31 (dollars in thousands) | 2018 | 2017 | 2016 |
|---|---|---|---|
| **ASSETS** | | | |
| Loans | $ 6,964,353 | $ 6,605,200 | $ 6,288,175 |
| Less: Allowance for loan losses | 78,370 | 75,751 | 77,583 |
| Net loans | 6,885,983 | 6,529,449 | 6,210,592 |
| Cash | 23,395 | 48,736 | 22,581 |
| Accrued interest receivable | 28,760 | 23,266 | 19,467 |
| Investment in CoBank, ACB | 235,769 | 224,509 | 216,249 |
| Premises and equipment, net | 27,245 | 25,479 | 20,063 |
| Other property owned | 2,609 | 1,447 | 766 |
| Other assets | 60,759 | 58,092 | 51,802 |
| **Total Assets** | $ 7,264,520 | $ 6,910,978 | $ 6,541,520 |
| **LIABILITIES** | | | |
| Notes payable to CoBank, ACB | $ 5,657,199 | $ 5,414,435 | $ 5,161,666 |
| Patronage distributions payable | 65,000 | 60,000 | 56,000 |
| Accrued interest payable | 13,305 | 9,185 | 6,258 |
| Reserve for unfunded commitments | 10,483 | 11,044 | 8,932 |
| Other liabilities | 64,592 | 66,780 | 62,062 |
| **Total Liabilities** | 5,810,579 | 5,561,444 | 5,294,918 |
| **MEMBERS' EQUITY** | | | |
| Capital stock and participation certificates | 15,079 | 14,808 | 14,338 |
| Additional paid-in capital | 229,198 | 229,198 | 229,198 |
| Unallocated retained earnings | 1,255,417 | 1,157,496 | 1,057,428 |
| Accumulated other comprehensive loss | (45,753) | (51,968) | (54,362) |
| **Total Members' Equity** | 1,453,941 | 1,349,534 | 1,246,602 |
| **Total Liabilities and Members' Equity** | $ 7,264,520 | $ 6,910,978 | $ 6,541,520 |

The accompanying notes are an integral part of these statements.

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

| Year Ended December 31 (dollars in thousands) | 2018 | 2017 | 2016 |
|---|---|---|---|
| **INTEREST INCOME** | | | |
| Loans | $ 344,766 | $ 286,608 | $ 247,207 |
| Other | 446 | 568 | 440 |
| Total interest income | 345,212 | 287,176 | 247,647 |
| **INTEREST EXPENSE** | | | |
| Notes payable to CoBank, ACB | 136,677 | 89,764 | 62,201 |
| Other | 12 | 7 | 4 |
| Total interest expense | 136,689 | 89,771 | 62,205 |
| Net interest income | 208,523 | 197,405 | 185,442 |
| Provision for loan losses | 5,000 | - | - |
| Net interest income after provision for loan losses | 203,523 | 197,405 | 185,442 |
| **NONINTEREST INCOME** | | | |
| Patronage income | 35,223 | 29,602 | 28,016 |
| Financially related services income | 26,390 | 25,380 | 24,992 |
| Compensation on participation loans, net | 2,582 | 2,374 | 2,503 |
| Loan fees | 2,432 | 2,406 | 2,468 |
| Other income | 5,082 | 9 | 7 |
| Total noninterest income | 71,709 | 59,771 | 57,986 |
| **NONINTEREST EXPENSE** | | | |
| Salaries and employee benefits | 59,925 | 60,224 | 55,765 |
| Information technology services | 12,174 | 11,016 | 9,116 |
| Insurance Fund premiums | 4,542 | 7,197 | 7,876 |
| Occupancy and equipment | 4,328 | 3,706 | 3,420 |
| Other operating expenses | 15,048 | 13,684 | 14,490 |
| Total noninterest expenses | 96,017 | 95,827 | 90,667 |
| Income before income taxes | 179,215 | 161,349 | 152,761 |
| Provision for income taxes | 1,294 | 1,281 | 1,403 |
| **Net Income** | $ 177,921 | $ 160,068 | $ 151,358 |
| **OTHER COMPREHENSIVE INCOME (LOSS)** | | | |
| Net change in retirement plan liabilities | 4,588 | 6,562 | (5,592) |
| Net change in cash flow hedges | 1,627 | (4,168) | (3,364) |
| Other Comprehensive Income (Loss) | 6,215 | 2,394 | (8,956) |
| **Comprehensive Income** | $ 184,136 | $ 162,462 | $ 142,402 |

The accompanying notes are an integral part of these statements.

## CONSOLIDATED STATEMENTS OF CHANGES IN MEMBERS' EQUITY

| (dollars in thousands) | Capital Stock and Participation Certificates | Additional Paid-in Capital | Unallocated Retained Earnings | Accumulated Other Comprehensive Income/(Loss) | Total Members' Equity |
|---|---|---|---|---|---|
| **Balance at December 31, 2015** | **$ 14,124** | **$ 229,198** | **$ 962,070** | **$ (45,406)** | **$ 1,159,986** |
| Comprehensive Income (Loss) | - | - | 151,358 | (8,956) | 142,402 |
| Capital stock and participation certificates issued | 1,142 | - | - | - | 1,142 |
| Capital stock and participation certificates retired | (928) | - | - | - | (928) |
| Patronage Distribution | - | - | (56,000) | - | (56,000) |
| **Balance at December 31, 2016** | **$ 14,338** | **$ 229,198** | **$ 1,057,428** | **$ (54,362)** | **$ 1,246,602** |
| Comprehensive Income (Loss) | - | - | 160,068 | 2,394 | 162,462 |
| Capital stock and participation certificates issued | 1,392 | - | - | - | 1,392 |
| Capital stock and participation certificates retired | (922) | - | - | - | (922) |
| Patronage Distribution | - | - | (60,000) | - | (60,000) |
| **Balance at December 31, 2017** | **$ 14,808** | **$ 229,198** | **$ 1,157,496** | **$ (51,968)** | **$ 1,349,534** |
| Comprehensive Income (Loss) | - | - | 177,921 | 6,215 | 184,136 |
| Capital stock and participation certificates issued | 1,533 | - | - | - | 1,533 |
| Capital stock and participation certificates retired | (1,262) | - | - | - | (1,262) |
| Patronage Distribution | - | - | (80,000) | - | (80,000) |
| **Balance at December 31, 2018** | **$ 15,079** | **$ 229,198** | **$ 1,255,417** | **$ (45,753)** | **$ 1,453,941** |

The accompanying notes are an integral part of these statements.

# CONSOLIDATED STATEMENTS OF CASH FLOWS

| Year Ended December 31 (dollars in thousands) | 2018 | 2017 | 2016 |
|---|---|---|---|
| **CASH FLOWS FROM OPERATING ACTIVITIES:** | | | |
| Net income | $ 177,921 | $ 160,068 | $ 151,358 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | |
| Depreciation | 3,040 | 2,559 | 2,539 |
| Provision for loan losses | 5,000 | - | - |
| Increase in accrued interest receivable | (6,599) | (4,835) | (1,631) |
| Increase in accrued interest payable | 4,120 | 2,927 | 1,248 |
| Increase in other liabilities | 3,465 | 9,224 | 4,687 |
| Increase in other assets | (2,919) | (2,880) | (4,220) |
| (Gain) loss from sales of other property owned | (61) | 14 | - |
| Gain from sales of premises and equipment | (252) | (243) | (228) |
| Total adjustments | 5,794 | 6,766 | 2,395 |
| Net cash provided by operating activities | 183,715 | 166,834 | 153,753 |
| **CASH FLOWS FROM INVESTING ACTIVITIES:** | | | |
| Increase in loans, net | (363,843) | (318,596) | (192,802) |
| Increase in patronage refunds due from CoBank | (1,085) | (951) | (911) |
| Increase in investment in CoBank | (10,175) | (7,309) | (8,232) |
| Increase (decrease) in investments | 252 | (3,410) | (1,120) |
| Expenditures for premises and equipment | (5,249) | (8,055) | (3,172) |
| Proceeds from sales of other property owned | 2,313 | 80 | 2,383 |
| Proceeds from sales of premises and equipment | 695 | 323 | 299 |
| Net cash used in investing activities | (377,092) | (337,918) | (203,555) |
| **CASH FLOWS FROM FINANCING ACTIVITIES:** | | | |
| Advances on notes payable under financing agreement with CoBank, ACB | 5,649,539 | 5,563,657 | 4,700,744 |
| Repayment of notes payable to CoBank, ACB | (5,406,774) | (5,310,888) | (4,590,038) |
| Capital stock and participation certificates issued | 1,533 | 1,392 | 1,142 |
| Capital stock and participation certificates retired | (1,262) | (922) | (928) |
| Patronage distributions paid | (75,000) | (56,000) | (53,000) |
| Net cash provided by financing activities | 168,036 | 197,239 | 57,920 |
| Net (decrease) increase in cash and cash equivalents | (25,341) | 26,155 | 8,118 |
| Cash and cash equivalents at beginning of year | 48,736 | 22,581 | 14,463 |
| Cash and cash equivalents at end of year | $ 23,395 | $ 48,736 | $ 22,581 |
| **SUPPLEMENTAL SCHEDULE OF NON-CASH ACTIVITIES:** | | | |
| Income taxes paid, net of refunds | $ 912 | $ 1,292 | $ 1,587 |
| Accrued interest transferred to loans | 1,105 | 1,036 | 847 |
| Loans transferred to other property owned | 3,414 | 775 | 1,203 |
| Cash patronage distribution declared | 65,000 | 60,000 | 56,000 |

The accompanying notes are an integral part of these statements.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

*(dollars in thousands except as noted)*

## NOTE 1 – ORGANIZATION AND OPERATIONS

### ORGANIZATION

Farm Credit East, ACA, an Agricultural Credit Association (ACA) and its subsidiaries, Farm Credit East FLCA, a Federal Land Credit Association (FLCA), and Farm Credit East PCA, a Production Credit Association (PCA), (collectively called "the Association"), is a member-owned cooperative which provides credit and financially related services to or for the benefit of eligible customers for qualified agricultural purposes in the counties of Belknap, Carroll, Hillsborough, Merrimack, Rockingham, and Strafford in the State of New Hampshire; all counties in the State of New York except Clinton and Essex, and in the States of Connecticut, Maine, Massachusetts, Rhode Island and New Jersey.

The Association is a lending institution of the Farm Credit System (the System), a nationwide system of cooperatively owned Banks and Associations, which was established by Acts of Congress to meet the credit needs of American agriculture and is subject to the provisions of the Farm Credit Act of 1971, as amended (the Farm Credit Act). At December 31, 2018, the System was comprised of three Farm Credit Banks (FCBs) and one Agricultural Credit Bank (ACB) and sixty nine affiliated Associations. CoBank, ACB (CoBank or ACB) is Farm Credit East's funding bank.

CoBank, its related associations and AgVantis, Inc. (AgVantis) are collectively referred to as the "District". CoBank provides the funding to associations within the District and is responsible for supervising certain activities of the District Associations. The CoBank District consists of CoBank, 22 Agricultural Credit Associations (ACA), which each have two wholly owned subsidiaries, (a FLCA and a PCA), and AgVantis.

ACA parent companies provide financing and related services through their FLCA and PCA subsidiaries. Generally the FLCA makes secured long-term agricultural real estate and rural home mortgage loans and the ACA or PCA make short and intermediate-term loans for agricultural production or operating purposes.

Farm Credit East, ACA, along with four other System Institutions, owns Farm Credit Financial Partners, Inc. (FPI) which provides technology and other operational services to its owners.

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

The Farm Credit Act established the Farm Credit System Insurance Corporation (Insurance Corporation) to administer the Farm Credit Insurance Fund (Insurance Fund). By law, the Insurance Fund is required to be used (1) to insure the timely payment of principal and interest on system wide 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 the discretionary uses by the Insurance Corporation of providing 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 onto the Associations, into the Insurance Fund, based on its annual average adjusted outstanding insured debt until the assets in the Insurance Fund reach the "secure base amount," which 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 in 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, as necessary to maintain the Insurance Fund at the 2.0 percent level. As required by the Farm Credit Act, as amended, the Insurance Corporation may return excess funds above the secure base amount to System institutions. CoBank passes this premium expense and the return of excess funds as applicable through to each association based on the Association's average adjusted note payable with CoBank.

### OPERATIONS

The Farm Credit Act sets forth the types of authorized lending activity, persons eligible to borrow, and financial services which can be offered by the Association. 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, their cooperatives, rural residents and farm-related businesses.

The Association provides additional services to borrowers such as financial recordkeeping, payroll, tax return preparation, tax planning, farm accounting software, fee appraisals, farm business consulting, and leasing. The Association also offers credit life insurance and multi-peril crop insurance to its borrowers, as an agent.

The Association's financial condition may be impacted by factors which affect CoBank. The CoBank Annual Report is available free of charge on CoBank's website, www.cobank.com; or may be obtained at no charge by contacting the Association. Upon request, stockholders of the Association will be provided with a copy of the CoBank Annual Report. CoBank's Annual Report to Stockholders discusses the material aspects of its financial condition, changes in financial condition, and results of operations.

## NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### BASIS OF PRESENTATION AND PRINCIPLES OF CONSOLIDATION

The consolidated financial statements of the Association have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP) and prevailing practices within the banking industry. All significant intercompany accounts and transactions have been eliminated. 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 footnotes. Material estimates that are particularly susceptible to significant change in the near term relate to the determination of the allowance for credit losses and the valuation of deferred tax assets. Actual results could differ may differ from those estimates. Significant estimates are discussed in these footnotes to consolidated financial statements, as applicable. Certain amounts in prior year's financial statements have been reclassified to conform to current financial statement presentation.

Below is a summary of the Association's significant accounting policies.

### LOANS

Long-term real estate mortgage loans generally have maturities ranging from 5 to 40 years. Substantially all short-term and intermediate-term loans for agricultural production or operating purposes have maturities of 10 years or less. Loans are carried at their principal amount outstanding adjusted for charge-offs and deferred loan fees or costs. Interest on loans is accrued and credited to interest income based upon the daily principal amount outstanding. Loan origination fees and direct loan origination costs are capitalized and the net fee or cost is amortized over the life of the related loan as an adjustment to yield.

In the normal course of business, the Association purchases loan participations from other System entities and other financial institutions to generate additional earnings and diversify risk related to existing commodities financed and the geographic area served. The Association also manages its lending credit exposures by selling loans to System entities and other financial institutions. These transactions are accounted as sales and comply with requirements under ASC 860 "Transfer and Servicing".

Impaired loans are loans for which it is probable that 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 shall remain contractually past due until it is formally restructured or until the entire amount past due, including principal, accrued interest, and penalty interest accrued as the result of past due status, is collected or otherwise discharged in full.

Loans are generally placed in nonaccrual status when principal or interest is delinquent for 90 days or more (unless adequately secured and in the process of collection) or when 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 either reversed (if accrued in the current year) and/or charged-off against the allowance for loan losses (if accrued in the prior year). Loans are charged-off at the time they are determined to be uncollectible.

When loans are in nonaccrual status, the Association's general practice is to apply and record on its financial records any payments received on nonaccrual loans in the following sequence: (1) to existing principal which includes outstanding principal, accounts receivable and accrued interest receivable as of the date of transfer into nonaccrual status plus any additional advances made since the loan was placed in nonaccrual status; (2) to recover any charged-off amount; and (3) to interest income. Nonaccrual loans may, at times, be maintained on a cash basis. Generally cash basis refers to the recognition of interest income from cash payments received on certain nonaccrual loans for which the collectability of the recorded investment in the loan is no longer in doubt and the loan does not have a remaining unrecovered prior charge-off associated with it. Nonaccrual loans may be returned to accrual status when principal and interest are current and reinstatement is supported by a period of sustained performance in accordance with the contractual terms of the note and/or loan agreement and the loan is not classified "doubtful" or "loss".

A restructured loan constitutes a troubled debt restructuring 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.

The Association uses a two-dimensional loan rating model based on an 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 exposure on a specific loan assuming default has occurred.

Each of the probability of default 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.

### ALLOWANCE FOR LOAN LOSSES AND RESERVE FOR UNFUNDED COMMITMENTS

The allowance for loan losses reflects an adjustment to the value of our total loan portfolio for inherent credit losses related to outstanding balances. We also maintain a separate reserve for unfunded commitments which is reported as a liability on the Association's consolidated balance sheet. The reserve for unfunded commitments represents an additional reserve for binding commitments to extend credit. The Association had $2.0 billion of commitments to extend credit at December 31, 2018. The amount of allowance for loan losses and reserve for unfunded commitments can fluctuate based on the seasonal nature of borrowings in the agriculture industry. We refer to the combined amounts of the allowance for loan losses and the reserve for unfunded commitments as the "allowance for credit losses". At December 31, 2018, the allowance for credit losses totaled $88.9 million, of which $78.4 million related to the allowance for loan losses and $10.5 million related to the reserve for unfunded commitments.

The allowance for credit losses is maintained at a level management considers sufficient to absorb losses inherent in the loan portfolio and in unfunded commitments. The credit risk rating methodology is a key component of the Association's allowance for credit losses evaluation, and is generally incorporated into its loan underwriting standards and internal lending limit. The allowance is increased through provision for loan losses and loan recoveries and is decreased through loan loss reversals and loan charge offs. The allowance is based on a periodic evaluation of the loan portfolio by management in which numerous factors are considered, including economic conditions, loan portfolio characteristics and composition, collateral values, loan quality, current production conditions and economic conditions, and prior loan loss experience. The allowance for credit losses encompasses various judgments, evaluations and appraisals with respect to the loans and their underlying collateral that, by their nature, contain elements of uncertainty and imprecision. Changes in the agricultural economy and their impact on borrower repayment capacity will cause these various judgments, evaluations and appraisals to change over time. Accordingly, actual circumstances could vary significantly from the Association's expectations and predictions of those circumstances. Management considers the following macro-economic factors in determining and supporting the level of allowance for loan losses: the concentration of lending in agriculture, combined with uncertainties associated with farmland values, commodity prices, exports, government assistance programs, regional economic effects and weather-related influences.

The allowance for credit losses includes components for loans individually evaluated for impairment and loans collectively evaluated for impairment. Generally, for loans individually evaluated the allowance for loan losses represents the difference between the recorded investment in the loan and the present value of the cash flows expected to be collected discounted at the loan's effective interest rate, or at the fair value of the collateral, if the loan is collateral dependent. For those loans collectively evaluated for impairment, the allowance for loan losses is determined using the risk-rating model as previously discussed.

### CASH

Cash, as included in the consolidated financial statements, represent cash on hand and on deposit at financial institutions. Due to the nature of cash, the Association estimated that the carrying amount approximated fair value. The nature of the Association's business requires that it maintain amounts due from banks which, at times, may exceed federally insured limits. The Association has not experienced any losses on such amounts and all amounts are maintained with well-capitalized institutions.

### INVESTMENT IN COBANK, ACB

The Association's investment in CoBank is in the form of Class A stock. The minimum required investment is 4.0 percent of the prior year's average direct loan volume. The investment in CoBank is comprised of patronage based stock and purchased stock. The requirement for capitalizing patronage-based participation loans sold to CoBank is 8.0 percent of the prior ten-year average of such participations sold to CoBank.

### OTHER PROPERTY OWNED

Other property owned, consisting of real and personal property acquired through foreclosure or deed in lieu of foreclosure, is recorded at fair value less estimated selling costs upon acquisition. 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. On at least an annual basis, 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 and expenses from operations and carrying value adjustments are included in other operating expenses in the consolidated Statement of Comprehensive Income.

**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 operations. Maintenance and repairs are expensed and improvements above certain thresholds are capitalized.

**EMPLOYEE BENEFIT PLANS**

Substantially all employees of the Association may be eligible to participate in various retirement plans. Association employees (except the former Maine employees who are participants in the noncontributory defined contribution plan) hired prior to January 1, 2007 participate in a qualified defined benefit pension plan, which is noncontributory and covered substantially all employees. The net expense for this plan is recorded as employee benefit expense. The "Projected Unit Credit" actuarial method is used for financial reporting and funding purposes.

Effective January 1, 2007, the Association closed the existing defined benefit pension plan to new participants. All employees hired on or after January 1, 2007 are participants in a noncontributory defined contribution plan. Participants in this plan receive a fixed percentage of their eligible wages, based on years of service, to an investment account maintained for the employee. Costs for this plan are expensed as funded and recorded as employee benefit expense.

Association employees are also eligible to participate in an employee savings plan (Thrift Plan). The Association matches a certain percentage of employee contributions with costs being expensed as funded. These costs are recorded as employee benefit expense.

The Association provides certain health care and life insurance benefits to eligible retired employees. Substantially all employees may become eligible for these benefits if they reach normal retirement age while working for the Association. The anticipated costs of these benefits are accrued during the period of the employee's active service and are classified as employee benefit expense. However, substantially all participants pay the full premiums associated with these benefits.

The Association recognizes in its consolidated balance sheet an asset for a retirement plan's overfunded status or a liability for a retirement plan's underfunded status. The Association also measures the Plan's assets and obligations that determine its funded status as of the end of the fiscal year and recognizes those changes in other comprehensive income, net of tax.

**INCOME TAXES**

As previously described, Farm Credit East, ACA operates two wholly owned subsidiaries. Farm Credit East, FLCA is exempt from federal and other income taxes as provided in the Farm Credit Act. Farm Credit East, ACA and its subsidiary Farm Credit East, PCA are subject to Federal and State income tax. All entities are eligible to operate as cooperatives that qualify 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 retained earnings. Provisions for income taxes are made only on those earnings that will not be distributed as qualified patronage refunds. The Association distributes patronage on the basis of book income. Operating expenses are allocated to each subsidiary based on estimated relative service.

Deferred taxes are recorded on the tax effect of all temporary differences. A valuation allowance is provided against deferred tax assets to the extent that it is more likely than not (over 50 percent probability), based on management's estimate, that they will not be realized. The consideration of valuation allowances involves various estimates and assumptions as to future taxable earnings, including the effects of our expected patronage program, which reduces taxable earnings.

**PATRONAGE INCOME FROM COBANK, ACB**

The Association records patronage refunds from CoBank, ACB on the accrual basis.

**DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITY**

The Association is party to derivative financial instruments, primarily interest rate swaps, which are principally used to manage interest rate risk on assets, liabilities and anticipated transactions. Derivatives are recorded on the balance sheet as assets and liabilities at fair value.

Changes in the fair value of a derivative are recorded in current period earnings or accumulated other comprehensive income (loss) depending on the use of the derivative and whether it qualifies for hedge accounting. For fair-value hedge transactions, which hedge changes in the fair value of assets, liabilities, or firm commitments, changes in the fair value of the derivative are recorded in earnings and will generally be offset by changes in the hedged item's fair value. For cash-flow hedge transactions, which hedge the variability of future cash flows related to a variable-rate asset, liability, or a forecasted transaction, changes in the fair value of the derivative will generally be deferred and reported in accumulated other comprehensive income (loss). The gains and losses on the derivative that are deferred and reported in accumulated other comprehensive income (loss) will be reclassified as earnings in the periods in which earnings are impacted by the variability of the cash flows of the hedged item. The ineffective portion of all hedges is recorded in current period earnings. For derivatives not designated as a hedging instrument, the related change in fair value is recorded in current period earnings.

The Association formally documents all relationships between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. This process includes linking all derivatives that are designated as fair value or cash flow hedges to (1) a portion of our long-term variable loans on the balance sheet or (2) firm commitments or forecasted transactions. The Association also formally assesses (both at the hedge's inception and on an ongoing basis) whether the derivatives that are used in hedging transactions have been highly effective in offsetting changes in the fair value or cash flows of hedged items and whether those derivatives may be expected to remain highly effective in future periods. The Association uses regression analysis (or statistical analysis) to assess the effectiveness of its hedges. The Association discontinues hedge accounting prospectively when the Association determines that 1) a derivative is no longer effective in offsetting changes in the fair value or cash flows of a hedged item; 2) the derivative expires or is sold, terminated, or exercised; 3) it is no longer probable that the forecasted transaction will occur; 4) a hedged firm commitment no longer meets the definition of a firm commitment; or 5) management determines that designating the derivative as a hedging instrument is no longer appropriate. The accounting guidance provides for various remedies in the event hedge accounting is discontinued. Due to the structure of the Association's current swap transactions, management has no reason to believe that hedge accounting qualifications will not be met and believes the transactions will continue to be recorded in the manner described in Note 15 of these consolidated financial statements.

## FAIR VALUE MEASUREMENT

The Accounting guidance defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements. It describes three levels of inputs that may be used to measure fair value:

Level 1 — Quoted prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date. Level 1 asset and liabilities include debt and equity securities and derivative contracts that are traded in an active exchange market, as well as certain U.S. Treasury, other U.S. Government and agency mortgage-backed debt securities that are highly liquid and are actively traded in over-the-counter markets. Also included in Level 1 are assets held in trust funds, which relate to the Association's deferred compensation plan and our supplemental retirement plan. The trust funds include investments that are actively traded and have quoted net asset values that are observable in the marketplace. Pension plan assets that are invested in equity securities, including mutual funds, and fixed-income securities that are actively traded are also included in Level 1.

Level 2 — Observable inputs other than quoted prices included within Level 1 that are observable for the asset or liability either directly or indirectly. Level 2 inputs include the following: (a) quoted prices for similar assets or liabilities in active markets; (b) quoted prices for identical or similar assets or liabilities in markets that are not active so that they are traded less frequently than exchange-traded instruments, the prices are not current or principal market information is not released publicly; (c) inputs other than quoted prices that are observable such as interest rates and yield curves, prepayment speeds, credit risks and default rates and (d) inputs derived principally from or corroborated by observable market data by correlation or other means. This category generally includes certain U.S. Government and agency mortgage-backed debt securities, corporate debt securities, and derivative contracts. Pension plan assets that are derived from observable inputs, including corporate bonds and mortgage-backed securities are reported in Level 2.

Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. These unobservable inputs reflect the reporting entity's own assumptions about assumptions that market participants would use in pricing the asset or liability. Level 3 assets and liabilities include financial instruments whose values are determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation. This category generally includes certain private equity investments, retained residual interests in securitizations, asset-backed securities, highly structured or long-term derivative contracts, certain loans and other property owned. Pension plan assets such as certain mortgage-backed securities that are supported by little or no market data in determining the fair value are included in Level 3.

The fair value disclosures are presented in Note 14 of these consolidated financial statements.

## OFF-BALANCE SHEET CREDIT EXPOSURES

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. Commercial letters of credit are conditional 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. The credit risk associated with commitments to extend credit and commercial 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.

**PILOT INVESTMENT PROGRAM AND MISSION RELATED INVESTMENTS**

On July 1, 2005 the Farm Credit Administration approved a pilot investment program for the Association designed to provide an opportunity for the Association to invest in Western New York agriculture. The approval provided for the ability to purchase investments in a securitized pool of agricultural loans from Rural Investments, LLC for a period of up to one year. On August 26, 2005 the Association entered into an agreement with Rural Investments, LLC (Rural Investments) a special purpose entity created by the Association and GSS Holdings, Inc. to hold loans sold by a commercial lender. Rural Investments was formed specifically to own and securitize the loans and subsequently sell the security to the Association as an investment. Rural Investments sole member is GSS Holdings, Inc. a Delaware special purpose entity created to own Rural Investments. The Association is the manager and through agreement controls Rural Investments and all its activities. All benefits and risks accrue to the Association as manager. The FLCA holds the investment security certificate.

The investment is carried at the lower of cost or fair market value. A valuation to determine fair market value is performed monthly by management, taking into account cash flows and the underlying loans contained in the investment. Income is recorded on investments only as it relates to underlying loans contained in the security that would be classified as accruing had the Association owned the loans. Interest is accrued and credited to interest income based upon the daily investment value. Any difference between amortized cost and actual borrower balances on the underlying loans is accreted to interest income as payments are received over the life of the investment. Any reduction in value recognized through the ongoing fair market value determination is recorded as a current charge and will directly impact the income statement at the time of recognition. No valuation allowance is maintained. Income is not recognized on the underlying loans contained in the investment for loans that would be considered impaired if the loans were owned by the Association. The Association's practice is to apply and record payments received on impaired underlying loans in the following sequence:

1. To existing principal until all principal is paid, and then
2. To interest income

Underlying loans contained in the investment may be returned to accrual status once performance criteria are met. Upon reinstatement, previously unrecognized income will be recognized as payments are received over the remaining life of the investment.

The Association may also hold additional investments in accordance with mission-related and other investment programs, approved by the FCA. These programs allow the Association to make investments that further the System's mission to serve rural America. The Association held mission related investments which are classified as loans totaling $7.5 million, $7.4 million and $8.6 million at December 31, 2018, 2017 and 2016, respectively. The Association also held equity investments in FarmStart, LLP and AgDirect, LLP totaling $5.7 million, $4.9 million and $3.4 million that is accounted for on the equity method of accounting and is classified in Other assets at December 31, 2018, 2017 and 2016, respectively.

**RECENTLY ISSUED OR ADOPTED ACCOUNTING PRONOUNCEMENTS**

In August 2018, the Financial Accounting Standards Board (FASB) issued guidance entitled "Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Cost." The guidance aligns 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 this guidance. This guidance becomes effective for interim and annual periods beginning after December 15, 2019. The guidance also requires an entity (customer) to expense the capitalized implementation costs of a hosting arrangement that is a service contract over the term of the hosting arrangement. It further specifies where to present expense and payments in the financial statements. Early adoption is permitted. The guidance is to be applied on a retrospective or prospective basis to all implementation costs incurred after the date of adoption. The Association is evaluating the impact of adoption on the Association's financial condition and its results of operations.

In August 2018, the FASB issued guidance entitled "Disclosure Framework — Changes to the Disclosure Requirements for Defined Benefit Plans." The guidance modifies the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. This guidance becomes effective for fiscal years ending after December 15, 2020. Early adoption is permitted. The guidance is to be applied on a retrospective basis for all periods. The adoption of this guidance will not impact the Association's financial condition or its results of operations, but will impact the employee benefit plan disclosures.

In August 2018, the FASB issued guidance entitled "Disclosure Framework — Changes to the Disclosure Requirements for Fair Value Measurement." The guidance modifies the requirements on fair value measurements by removing, modifying or adding to the disclosures. This guidance becomes effective for interim and annual periods beginning after December 15, 2019. Early adoption is permitted and an entity is permitted to early adopt any removal or modified disclosures and delay adoption of the additional disclosures until their effective date. The Association early adopted during the fourth quarter of 2018. The adoption of this guidance did not impact the Association's financial condition or its results of operations.

In August 2017, the (FASB) issued guidance entitled "Targeted Improvements to Accounting for Hedging Activities." The guidance better aligns an entity's risk management activities and financial reporting for hedging relationships through changes to both the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results. The amendments in this guidance require an entity to present the earnings effect of the hedging instrument in the same income statement line item in which the earnings effect of the hedged item is reported. This guidance also addresses the timing of effectiveness testing, qualitative and quantitative effectiveness testing and components that can be excluded from effectiveness testing. This guidance becomes effective for interim and annual periods beginning after December 15, 2018. The Association is evaluating the impact of adoption on the Association's financial condition and its results of operations.

In March 2017, the FASB issued guidance entitled "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Cost." The guidance requires that an employer report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. Other components are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. This guidance became effective for interim and annual periods beginning after December 15, 2017. The adoption of this guidance did not materially impact the Association's financial condition.

In August 2016, the FASB issued guidance entitled "Classification of Certain Cash Receipts and Cash Payments." The guidance addresses specific cash flow issues with the objective of reducing the diversity in the classification of these cash flows. Included in the cash flow issues are debt prepayment or debt extinguishment costs and settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing. This guidance became effective for interim and annual periods beginning after December 15, 2017. The adoption of this guidance did not materially impact the Association's financial condition or its results of operations.

In June 2016, the FASB issued guidance entitled "Measurement of Credit Losses on Financial Instruments." The guidance replaces the current incurred loss impairment methodology with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. Credit losses relating to available-for-sale securities would also be recorded through an allowance for credit losses. For public business entities that are not U.S. Securities and Exchange Commission filers, this guidance becomes effective for interim and annual periods beginning after December 15, 2020, with early application permitted. The Association is evaluating the impact of adoption on its financial condition and its results of operations.

In February 2016, the FASB issued guidance entitled "Leases." The guidance requires the recognition by lessees of lease assets and lease liabilities on the balance sheet for the rights and obligations created by those leases. Leases with lease terms of more than 12 months are impacted by this guidance. In July 2018, the FASB issued an update entitled "Leases – Targeted Improvements," which provides entities with 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. An entity that elects this additional transition method must provide the required disclosures of the now current standard for all prior periods presented. The guidance and related amendments in this updated became effective for interim and annual periods beginning after December 15, 2018, with early application permitted. The adoption of this guidance is not expected to impact the Association's financial condition or its results of operations.

In January 2016, the FASB issued guidance entitled "Recognition and Measurement of Financial Assets and Liabilities." The guidance affects, among other things, the presentation and disclosure requirements for financial instruments. For public entities, the guidance eliminates the requirement to disclose the methods and significant assumptions used to estimate the fair value of financial instruments carried at amortized cost. This guidance became effective for interim and annual periods beginning after December 15, 2017. The adoption of this guidance did not impact the Association's financial condition or its results of operations.

In May 2014, the FASB issued guidance entitled, "Revenue from Contracts with Customers." The guidance governs revenue recognition from contracts with customers and requires an entity to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Financial instruments and other contractual rights within the scope of other guidance issued by the FASB are excluded from the scope of this new revenue recognition guidance. The guidance sets forth the requirement for new and enhanced disclosures. The Association adopted the new standard effective January 1, 2018, using the modified retrospective approach. As the majority of the Association's revenues are not subject to the new guidance, the adoption of the guidance did not have a material impact on the financial position, results of operations, equity or cash flows.

## NOTE 3 – LOANS, LOAN QUALITY AND ALLOWANCE FOR CREDIT LOSSES

### LOANS OUTSTANDING

Loans outstanding by loan type are shown below.

| December 31 | 2018 | | 2017 | | 2016 | |
|---|---|---|---|---|---|---|
| Real estate mortgage | $ 3,189,961 | 45.8% | $ 3,056,162 | 46.3% | $ 2,858,897 | 45.6% |
| Production and intermediate | 2,533,160 | 36.4 | 2,432,909 | 36.8 | 2,309,299 | 36.7 |
| Agribusiness | 1,056,980 | 15.2 | 951,001 | 14.4 | 977,095 | 15.5 |
| Rural infrastructure | 105,330 | 1.5 | 85,653 | 1.3 | 87,073 | 1.3 |
| Rural residential real estate | 56,090 | 0.8 | 56,596 | 0.9 | 55,811 | 0.9 |
| Other | 22,832 | 0.3 | 22,879 | 0.3 | - | - |
| Total Loans | $ 6,964,353 | 100.0% | $ 6,605,200 | 100.0% | $ 6,288,175 | 100.0% |

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 table presents information regarding participations purchased and sold as of December 31, 2018 which are also included in the table above:

| | CoBank, ACB Participations | | Other Farm Credit Institutions Participations | | Non-Farm Credit Institutions Participations | | Total Participations | |
|---|---|---|---|---|---|---|---|---|
| | Purchased | Sold | Purchased | Sold | Purchased | Sold | Purchased | Sold |
| Real estate mortgage | $ 18,069 | $ 38,399 | $ 185,125 | $ 14,095 | $ - | $ 34 | $ 203,194 | $ 52,528 |
| Production and intermediate | 58,244 | 155,591 | 301,752 | 105,436 | 17,724 | - | 377,720 | 261,027 |
| Agribusiness | 295,017 | 265,456 | 140,969 | 326,626 | - | 2,271 | 435,986 | 594,353 |
| Rural infrastructure | 105,574 | - | - | - | - | - | 105,574 | - |
| Other | 26,701 | 3,851 | - | - | - | - | 26,701 | 3,851 |
| Total Loans | $ 503,605 | $ 463,297 | $ 627,846 | $ 446,157 | $ 17,724 | $ 2,305 | $ 1,149,175 | $ 911,759 |

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 secured 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 the loan to value ratios in excess of the regulatory maximum.

To mitigate the risk of loan losses, the Association has obtained credit enhancements by entering 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 was $16.9 million, $20.2 million and $31.0 million at December 31, 2018, 2017 and 2016 respectively. Fees paid to Farmer Mac for such commitments totaled $0.1 million for year ended December 31, 2018 and $0.2 million for 2017 and 2016 respectively. These amounts are classified as noninterest expense. In addition to Farmer Mac, the Association has credit enhancements with federal and state agencies totaling $267.4 million, $254.3 million and $248.5 million at December 31, 2018, 2017 and 2016 respectively.

## CREDIT QUALITY

One credit quality indicator utilized by the Bank and Associations is the Farm Credit Administration Uniform Loan Classification System that categorizes loans into five categories. The categories are defined as follows:

- Acceptable – assets are expected to be fully collectible and represent the highest quality,
- Other assets especially mentioned (OAEM) – assets are currently collectible but exhibit some potential weakness,
- Substandard – assets exhibit some serious weakness in repayment capacity, equity, and/or collateral pledged on the loan,
- Doubtful – assets exhibit similar weaknesses to substandard assets; however, doubtful assets have additional weaknesses in existing factors, conditions and values that make collection in full highly questionable, and
- Loss – assets are considered uncollectible.

The following table shows loans and related accrued interest classified under the Farm Credit Administration's 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 | Acceptable | OAEM | Substandard/ Doubtful | Total |
|---|---|---|---|---|
| Real estate mortgage | 41.8% | 2.3% | 1.8% | 45.9% |
| Production and Intermediate term | 33.2 | 1.9 | 1.3 | 36.4 |
| Agribusiness | 14.6 | 0.1 | 0.4 | 15.1 |
| Rural infrastructure | 1.5 | - | - | 1.5 |
| Rural residential real estate | 0.8 | - | - | 0.8 |
| Other | 0.3 | - | - | 0.3 |
| Total | 92.2% | 4.3% | 3.5% | 100.0% |

| December 31, 2017 | Acceptable | OAEM | Substandard/ Doubtful | Total |
|---|---|---|---|---|
| Real estate mortgage | 43.1% | 1.6% | 1.6% | 46.3% |
| Production and Intermediate term | 34.3 | 1.1 | 1.5 | 36.9 |
| Agribusiness | 13.7 | 0.1 | 0.6 | 14.4 |
| Rural infrastructure | 1.3 | - | - | 1.3 |
| Rural residential real estate | 0.8 | - | - | 0.8 |
| Other | 0.3 | - | - | 0.3 |
| Total | 93.5% | 2.8% | 3.7% | 100.0% |

| December 31, 2016 | Acceptable | OAEM | Substandard/ Doubtful | Total |
|---|---|---|---|---|
| Real estate mortgage | 41.8% | 2.0% | 1.7% | 45.5% |
| Production and Intermediate term | 33.9 | 1.9 | 0.9 | 36.7 |
| Agribusiness | 14.7 | 0.2 | 0.7 | 15.6 |
| Rural infrastructure | 1.1 | 0.2 | - | 1.3 |
| Rural residential real estate | 0.8 | - | 0.1 | 0.9 |
| Total | 92.3% | 4.3% | 3.4% | 100.0% |

## IMPAIRED LOANS

Impaired loans are loans for which it is probable that all principal and interest will not be collected according to the contractual terms. Interest income recognized and payments received on impaired loans are applied in a similar manner as for nonaccrual loans, as described in Note 2.

The following table presents information relating to impaired loans:

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Nonaccrual loans: | | | |
| Current as to principal and interest | $ 15,596 | $ 5,144 | $ 9,591 |
| Past due | 30,175 | 30,456 | 43,581 |
| Total nonaccrual loans | $ 45,771 | $ 35,600 | $ 53,172 |
| Impaired accruing loans: | | | |
| Restructured accruing loans | $ 617 | $ 643 | $ 68 |
| Accruing loans 90 days or more past due | 757 | 1,821 | 2,632 |
| Total impaired accruing loans | $ 1,374 | $ 2,464 | $ 2,700 |
| Total impaired loans | $ 47,145 | $ 38,064 | $ 55,872 |

There were no material commitments to lend additional funds to debtors whose loans were classified impaired for the years presented.

High risk assets consist of impaired loans and other property owned. The following table presents these in a more detailed manner than the previous table. These nonperforming assets (including related accrued interest) are as follows:

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Nonaccrual loans: | | | |
| Real estate mortgage | $ 16,385 | $ 19,231 | $ 39,693 |
| Production and intermediate term | 18,205 | 14,534 | 9,804 |
| Agribusiness | 10,757 | 1,248 | 3,325 |
| Rural residential real estate | 424 | 587 | 350 |
| Total nonaccrual loans | $ 45,771 | $ 35,600 | $ 53,172 |
| Accruing restructured loans: | | | |
| Real estate mortgage | $ 559 | $ 581 | $ - |
| Production and intermediate term | 62 | 63 | 68 |
| Total accruing restructured loans | $ 621 | $ 644 | $ 68 |
| Accruing loans 90 days or more past due: | | | |
| Real estate mortgage | $ 784 | $ 1,595 | $ 1,991 |
| Production and intermediate term | - | 280 | 839 |
| Total accruing loans 90 days or more past due | $ 784 | $ 1,875 | $ 2,830 |
| Total impaired loans | $ 47,176 | $ 38,119 | $ 56,070 |
| Other property owned | $ 2,609 | $ 1,447 | $ 766 |
| Total high risk assets | $ 49,785 | $ 39,566 | $ 56,836 |

The following tables present additional impaired loan information and related amounts in the allowance for loan losses. The recorded investment in the 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 unpaid principal balance represents the borrower's contractual principal balance on the loan.

| | As of December 31, 2018 | | | For the Year Ended December 31, 2018 | |
|---|---|---|---|---|---|
| | **Recorded Investment** | **Unpaid Principal Balance** | **Related Allowance** | **Average Impaired Loans** | **Interest Income Recognized** |
| **Impaired loans with a related allowance for loan losses:** | | | | | |
| Real estate mortgage | $ 4,015 | $ 4,374 | $ 637 | $ 2,554 | $ (98) |
| Production and intermediate term | 7,866 | 8,625 | 2,391 | 6,202 | (206) |
| Agribusiness | 474 | 724 | 180 | 579 | (5) |
| Rural residential real estate | - | - | - | - | - |
| Total | $ 12,355 | $ 13,723 | $ 3,208 | $ 9,335 | $ (309) |
| **Impaired loans with no related allowance for loan losses:** | | | | | |
| Real estate mortgage | $ 13,683 | $ 20,422 | $ - | $ 16,967 | $ 1,014 |
| Production and intermediate term | 10,442 | 13,005 | - | 8,355 | 595 |
| Agribusiness | 10,241 | 11,191 | - | 5,863 | 39 |
| Rural residential real estate | 424 | 718 | - | 521 | 26 |
| Total | $ 34,790 | $ 45,336 | $ - | $ 31,706 | $ 1,674 |
| **Total Impaired loans:** | | | | | |
| Real estate mortgage | $ 17,698 | $ 24,796 | $ 637 | $ 19,521 | $ 916 |
| Production and intermediate term | 18,308 | 21,630 | 2,391 | 14,557 | 389 |
| Agribusiness | 10,715 | 11,915 | 180 | 6,442 | 34 |
| Rural residential real estate | 424 | 718 | - | 521 | 26 |
| Total | $ 47,145 | $ 59,059 | $ 3,208 | $ 41,041 | $ 1,365 |

| | As of December 31, 2017 | | | For the Year Ended December 31, 2017 | |
|---|---|---|---|---|---|
| | **Recorded Investment** | **Unpaid Principal Balance** | **Related Allowance** | **Average Impaired Loans** | **Interest Income Recognized** |
| **Impaired loans with a related allowance for loan losses:** | | | | | |
| Real estate mortgage | $ 6,021 | $ 6,340 | $ 1,095 | $ 4,671 | $ 57 |
| Production and intermediate term | 5,282 | 6,308 | 1,080 | 5,103 | 29 |
| Agribusiness | 588 | 871 | 257 | 232 | (1) |
| Rural residential real estate | 338 | 375 | 58 | 190 | (5) |
| Total | $ 12,229 | $ 13,894 | $ 2,490 | $ 10,196 | $ 80 |
| **Impaired loans with no related allowance for loan losses:** | | | | | |
| Real estate mortgage | $ 15,341 | $ 20,043 | $ - | $ 26,583 | $ 1,219 |
| Production and intermediate term | 9,586 | 16,654 | - | 10,091 | 433 |
| Agribusiness | 660 | 1,020 | - | 655 | 50 |
| Rural residential real estate | 248 | 483 | - | 272 | 11 |
| Total | $ 25,835 | $ 38,200 | $ - | $ 37,601 | $ 1,713 |
| **Total Impaired loans:** | | | | | |
| Real estate mortgage | $ 21,362 | $ 26,383 | $ 1,095 | $ 31,254 | $ 1,276 |
| Production and intermediate term | 14,868 | 22,962 | 1,080 | 15,194 | 462 |
| Agribusiness | 1,248 | 1,891 | 257 | 887 | 49 |
| Rural residential real estate | 586 | 858 | 58 | 462 | 6 |
| Total | $ 38,064 | $ 52,094 | $ 2,490 | $ 47,797 | $ 1,793 |

| | As of December 31, 2016 | | | For the Year Ended December 31, 2016 | |
|---|---|---|---|---|---|
| | Recorded Investment | Unpaid Principal Balance | Related Allowance | Average Impaired Loans | Interest Income Recognized |
| **Impaired loans with a related allowance for loan losses:** | | | | | |
| Real estate mortgage | $ 5,284 | $ 5,733 | $ 1,352 | $ 4,706 | $ (15) |
| Production and intermediate term | 3,389 | 3,811 | 648 | 2,967 | (28) |
| Agribusiness | 2,834 | 2,917 | 444 | 623 | (114) |
| Rural residential real estate | 44 | 69 | 44 | 46 | - |
| Total | $ 11,551 | $ 12,530 | $ 2,488 | $ 8,342 | $ (157) |
| **Impaired loans with no related allowance for loan losses:** | | | | | |
| Real estate mortgage | $ 36,309 | $ 54,478 | $ - | $ 37,933 | $ 660 |
| Production and intermediate term | 7,216 | 16,680 | - | 10,734 | 130 |
| Agribusiness | 490 | 833 | - | 568 | 59 |
| Rural residential real estate | 306 | 512 | - | 283 | 11 |
| Total | $ 44,321 | $ 72,503 | $ - | $ 49,518 | $ 860 |
| **Total Impaired loans:** | | | | | |
| Real estate mortgage | $ 41,593 | $ 60,211 | $ 1,352 | $ 42,639 | $ 645 |
| Production and intermediate term | 10,605 | 20,491 | 648 | 13,701 | 102 |
| Agribusiness | 3,324 | 3,750 | 444 | 1,191 | (55) |
| Rural residential real estate | 350 | 581 | 44 | 329 | 11 |
| Total | $ 55,872 | $ 85,033 | $ 2,488 | $ 57,860 | $ 703 |

Interest income on nonaccrual loans that would have been recognized under the original terms of the loans are as follows:

| Year ended December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Interest income which would have been recognized under the original loan terms | $ 4,141 | $ 4,397 | $ 5,349 |
| Less: interest income recognized | 1,232 | 1,621 | 561 |
| Forgone interest income | $ 2,909 | $ 2,776 | $ 4,788 |

## COMMITMENTS ON IMPAIRED LOANS

There were no material commitments to lend additional funds to debtors whose loans were classified as impaired for the years presented.

**LOAN DELINQUENCIES**

The following table provides an age analysis of past due loans as of December 31, 2018, 2017 and 2016:

| December 31, 2018 | 30-89 Days Past Due | 90 Days or More Past Due | Total Past Due | Current | Total Loans | Accruing Loans 90 days or More Past Due |
|---|---|---|---|---|---|---|
| Real estate mortgage | $ 19,727 | $ 9,686 | $ 29,413 | $ 3,160,548 | $ 3,189,961 | $ 757 |
| Production and intermediate term | 12,812 | 13,257 | 26,069 | 2,507,091 | 2,533,160 | - |
| Agribusiness | 1,296 | 531 | 1,827 | 1,055,153 | 1,056,980 | - |
| Rural infrastructure | - | - | - | 105,330 | 105,330 | - |
| Rural residential real estate | 165 | 47 | 212 | 55,877 | 56,090 | - |
| Other | - | - | - | 22,832 | 22,832 | - |
| Total Loans | $ 34,000 | $ 23,521 | $ 57,521 | $ 6,906,832 | $ 6,964,353 | $ 757 |

| December 31, 2017 | 30-89 Days Past Due | 90 Days or More Past Due | Total Past Due | Current | Total Loans | Accruing Loans 90 days or More Past Due |
|---|---|---|---|---|---|---|
| Real estate mortgage | $ 8,796 | $ 16,234 | $ 25,030 | $ 3,031,132 | $ 3,056,162 | $ 1,550 |
| Production and intermediate term | 3,636 | 13,477 | 17,113 | 2,415,796 | 2,432,909 | 271 |
| Agribusiness | 62 | 1,243 | 1,305 | 949,696 | 951,001 | - |
| Rural infrastructure | - | - | - | 85,653 | 85,653 | - |
| Rural residential real estate | 160 | 265 | 425 | 56,171 | 56,596 | - |
| Other | - | - | - | 22,879 | 22,879 | - |
| Total Loans | $ 12,654 | $ 31,219 | $ 43,873 | $ 6,561,327 | $ 6,605,200 | $ 1,821 |

| December 31, 2016 | 30-89 Days Past Due | 90 Days or More Past Due | Total Past Due | Current | Total Loans | Accruing Loans 90 days or More Past Due |
|---|---|---|---|---|---|---|
| Real estate mortgage | $ 10,011 | $ 32,207 | $ 42,218 | $ 2,816,679 | $ 2,858,897 | $ 1,900 |
| Production and intermediate term | 4,647 | 9,901 | 14,548 | 2,294,751 | 2,309,299 | 732 |
| Agribusiness | 313 | 3,264 | 3,577 | 973,518 | 977,095 | - |
| Rural infrastructure | - | - | - | 87,073 | 87,073 | - |
| Rural residential real estate | 455 | 207 | 662 | 55,149 | 55,811 | - |
| Total Loans | $ 15,426 | $ 45,579 | $ 61,005 | $ 6,227,170 | $ 6,288,175 | $ 2,632 |

## TROUBLED DEBT RESTRUCTURING

A restructuring of a debt constitutes a troubled debt restructuring 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. Concessions granted may include interest rate reductions, maturity extensions or in limited circumstances, principal may be forgiven.

The following tables presents additional information regarding troubled debt restructurings (whether accrual or nonaccrual in each year) that occurred during the period.

| | Year Ended December 31, 2018 | | Year Ended December 31, 2017 | | Year Ended December 31, 2016 | |
|---|---|---|---|---|---|---|
| | Pre-modification Outstanding Recorded Investment* | Post-modification Outstanding Recorded Investment* | Pre-modification Outstanding Recorded Investment* | Post-modification Outstanding Recorded Investment* | Pre-modification Outstanding Recorded Investment* | Post-modification Outstanding Recorded Investment* |
| Real estate mortgage | $ 7 | $ 7 | $ 441 | $ 441 | $ 130 | $ 130 |
| Total | $ 7 | $ 7 | $ 441 | $ 441 | $ 130 | $ 130 |

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

Subsequent to their restructuring, no troubled debt restructurings subsequently defaulted. There were no additional commitments to lend to borrowers whose loans have been modified in TDRs at December 31, 2018. There were $0.1 million commitments to lend to borrowers whose loans have been modified as TDRs at December 31, 2017 and December 31, 2016.

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 tables.

| | Loans Modified as TDRs | | | TDRs in Nonaccrual Status* | | |
|---|---|---|---|---|---|---|
| | December 31, 2018 | December 31, 2017 | December 31, 2016 | December 31, 2018 | December 31, 2017 | December 31, 2016 |
| Real estate mortgage | $ 638 | $ 678 | $ 13,240 | $ 79 | $ 97 | $ 13,240 |
| Production and intermediate term | 238 | 269 | 308 | 176 | 207 | 240 |
| Total | $ 876 | $ 947 | $ 13,548 | $ 255 | $ 304 | $ 13,480 |

* Represents the portion of loans modified as TDRs that are in nonaccrual status

## ALLOWANCE FOR CREDIT LOSSES

The following tables present the changes in the components of our allowance for credit losses and the details of the ending balances. The allowance for credit losses includes the allowance for loan losses and the reserve for unfunded commitments.

| December 31, 2018 | Real Estate Mortgage | Production and Intermediate | Agribusiness | Rural infrastructure | Rural Residential Real Estate | Other | Total |
|---|---|---|---|---|---|---|---|
| **Allowance for Loan Losses** | | | | | | | |
| Beginning balance | $ 23,735 | $ 30,345 | $ 19,575 | $ 1,530 | $ 409 | $ 157 | $ 75,751 |
| Charge-offs | (2,896) | (854) | (128) | - | (35) | - | (3,913) |
| Recoveries | 543 | 422 | 6 | - | - | - | 971 |
| Provision for loan losses | 1,881 | 2,052 | 1,411 | (87) | (255) | (2) | 5,000 |
| Transfers (to) from reserve for unfunded commitments | 226 | 252 | 24 | 26 | 32 | 1 | 561 |
| Ending balance | $ 23,489 | $ 32,217 | $ 20,888 | $ 1,469 | $ 151 | $ 156 | $ 78,370 |
| **Reserve for Unfunded Commitments** | | | | | | | |
| Beginning balance | $ 3,413 | $ 4,412 | $ 2,912 | $ 231 | $ 53 | $ 23 | $ 11,044 |
| Transfers (to) from allowance for loan losses | (226) | (252) | (24) | (26) | (32) | (1) | (561) |
| Ending balance | $ 3,187 | $ 4,160 | $ 2,888 | $ 205 | $ 21 | $ 22 | $ 10,483 |
| **Allowance for Credit Losses** | $ 26,676 | $ 36,377 | $ 23,776 | $ 1,674 | $ 172 | $ 178 | $ 88,853 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Allowance for Credit Losses** | | | | | | | |
| Ending balance, allowance for credit losses related to loans: | | | | | | | |
| Individually evaluated for impairment | $ 637 | $ 2,391 | $ 180 | $ - | $ - | $ - | $ 3,208 |
| Collectively evaluated for impairment | 26,039 | 33,986 | 23,596 | 1,674 | 172 | 178 | 85,645 |
| Total | $ 26,676 | $ 36,377 | $ 23,776 | $ 1,674 | $ 172 | $ 178 | $ 88,853 |
| **Loans** | | | | | | | |
| Ending balance for loans: | | | | | | | |
| Individually evaluated for impairment | $ 16,385 | $ 18,205 | $ 10,757 | $ - | $ 424 | $ - | $ 45,771 |
| Collectively evaluated for impairment | 3,173,576 | 2,514,913 | 1,046,265 | 105,330 | 55,666 | 22,832 | 6,918,582 |
| Total | $ 3,189,961 | $ 2,533,160 | $ 1,056,980 | $ 105,330 | $ 56,090 | $ 22,832 | $6,964,353 |

| December 31, 2017 | Real Estate Mortgage | Production and Intermediate | Agribusiness | Rural infrastructure | Rural Residential Real Estate | Other | Total |
|---|---|---|---|---|---|---|---|
| **Allowance for Loan Losses** | | | | | | | |
| Beginning balance | $ 32,719 | $ 22,639 | $ 19,321 | $ 2,642 | $ 262 | $ - | $ 77,583 |
| Charge-offs | (225) | (567) | (251) | - | - | - | (1,043) |
| Recoveries | 373 | 943 | 7 | - | - | - | 1,323 |
| Provision for loan losses | (9,450) | 9,126 | 1,165 | (1,195) | 174 | 180 | - |
| Transfers (to) from reserve for unfunded commitments | 318 | (1,796) | (667) | 83 | (27) | (23) | (2,112) |
| Ending balance | $ 23,735 | $ 30,345 | $ 19,575 | $ 1,530 | $ 409 | $ 157 | $ 75,751 |
| **Reserve for Unfunded Commitments** | | | | | | | |
| Beginning balance | $ 3,731 | $ 2,616 | $ 2,245 | $ 314 | $ 26 | $ - | $ 8,932 |
| Transfers (to) from allowance for loan losses | (318) | 1,796 | 667 | (83) | 27 | 23 | 2,112 |
| Ending balance | $ 3,413 | $ 4,412 | $ 2,912 | $ 231 | $ 53 | $ 23 | $ 11,044 |
| **Allowance for Credit Losses** | $ 27,148 | $ 34,757 | $ 22,487 | $ 1,761 | $ 462 | $ 180 | $ 86,795 |
| **Allowance for Credit Losses** | | | | | | | |
| Ending balance, allowance for credit losses related to loans: | | | | | | | |
| Individually evaluated for impairment | $ 1,095 | $ 1,080 | $ 257 | $ - | $ 58 | - | $ 2,490 |
| Collectively evaluated for impairment | 26,053 | 33,677 | 22,230 | 1,761 | 404 | 180 | 84,305 |
| Total | $ 27,148 | $ 34,757 | $ 22,487 | $ 1,761 | $ 462 | 180 | $ 86,795 |
| **Loans** | | | | | | | |
| Ending balance for loans: | | | | | | | |
| Individually evaluated for impairment | $ 19,231 | $ 14,534 | $ 1,248 | $ - | $ 587 | - | $ 35,600 |
| Collectively evaluated for impairment | 3,036,931 | 2,418,375 | 949,753 | 85,653 | 56,009 | 22,879 | 6,569,600 |
| Total | $ 3,056,162 | $ 2,432,909 | $ 951,001 | $ 85,653 | $ 56,596 | 22,879 | $6,605,200 |

| December 31, 2016 | Real Estate Mortgage | Production and Intermediate | Agribusiness | Rural infrastructure | Rural Residential Real Estate | Total |
|---|---|---|---|---|---|---|
| **Allowance for Loan Losses** | | | | | | |
| Beginning balance | $ 28,619 | $ 25,884 | $ 17,929 | $ 3,598 | $ 331 | $ 76,361 |
| Charge-offs | (518) | (553) | (78) | - | - | (1,149) |
| Recoveries | 268 | 163 | 13 | - | - | 444 |
| Provision for loan losses | 4,049 | (3,905) | 1,108 | (1,168) | (84) | - |
| Transfers (to) from reserve for unfunded commitments | 301 | 1,050 | 349 | 212 | 15 | 1,927 |
| Ending balance | $ 32,719 | $ 22,639 | $ 19,321 | $ 2,642 | $ 262 | $ 77,583 |
| **Reserve for Unfunded Commitments** | | | | | | |
| Beginning balance | $ 4,032 | $ 3,666 | $ 2,594 | $ 526 | $ 41 | $ 10,859 |
| Transfers (to) from allowance for loan losses | (301) | (1,050) | (349) | (212) | (15) | (1,927) |
| Ending balance | $ 3,731 | $ 2,616 | $ 2,245 | $ 314 | $ 26 | $ 8,932 |
| **Allowance for Credit Losses** | $ 36,450 | $ 25,255 | $ 21,566 | $ 2,956 | $ 288 | $ 86,515 |
| **Allowance for Credit Losses** | | | | | | |
| Ending balance, allowance for credit losses related to loans: | | | | | | |
| Individually evaluated for impairment | $ 1,352 | $ 648 | $ 444 | $ - | $ 44 | $ 2,488 |
| Collectively evaluated for impairment | 35,098 | 24,607 | 21,122 | 2,956 | 244 | 84,027 |
| Total | $ 36,450 | $ 25,255 | $ 21,566 | $ 2,956 | $ 288 | $ 86,515 |
| **Loans** | | | | | | |
| Ending balance for loans: | | | | | | |
| Individually evaluated for impairment | $ 39,693 | $ 9,804 | $ 3,325 | $ - | $ 350 | $ 53,172 |
| Collectively evaluated for impairment | 2,819,204 | 2,299,495 | 973,770 | 87,073 | 55,461 | 6,235,003 |
| Total | $ 2,858,897 | $ 2,309,299 | $ 977,095 | $ 87,073 | $ 55,811 | $6,288,175 |

## NOTE 4 – INVESTMENT IN COBANK, ACB

At December 31, 2018, the Associations' investment in CoBank is in the form of Class A stock with a par value of $100 per share. The Association is required to own stock in CoBank to capitalize its direct loan balance and participation loans sold to CoBank. The current requirement for capitalizing its direct loan from CoBank is 4.0 percent of the Associations' prior year average direct loan balance. The current requirement for capitalizing patronage-based participation loans sold to CoBank is 8.0 percent of the Association's prior ten-year average balance of such participations sold to CoBank. Under the current CoBank capital plan applicable to such participations sold, patronage from CoBank related to these participations sold is paid 75 percent cash and 25 percent Class A stock. The capital plan is evaluated annually by CoBank's board and management and is subject to change.

CoBank may require the holders of its equities to subscribe for such additional capital as may be needed to meet its capital requirements or its joint and several liability under the Act and regulations.

The Association owns 6.92 percent of the issued stock of the ACB as of December 31, 2018. As of that date, the ACB's assets totaled $139.02 billion and members' equity totaled $9.5 billion. The ACB earned net income of $1.2 billion during 2018.

## NOTE 5 – PREMISES AND EQUIPMENT

Premises and equipment consists of the following:

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Land | $ 1,569 | $ 1,212 | $ 1,212 |
| Buildings and improvements | 33,232 | 26,596 | 25,485 |
| Furniture and equipment | 7,525 | 6,948 | 6,370 |
| Autos | 4,990 | 5,202 | 4,867 |
| Construction in progress | 845 | 6,004 | 1,470 |
| Premises and equipment at cost | $ 48,161 | $ 45,962 | $ 39,404 |
| Less: accumulated depreciation | 20,916 | 20,483 | 19,341 |
| Total premises and equipment, net | $ 27,245 | $ 25,479 | $ 20,063 |

## NOTE 6 – NOTES PAYABLE TO COBANK, ACB

The Association's indebtedness to CoBank represents borrowings by the Association to fund its loan portfolio. This indebtedness is collateralized by a pledge of substantially all of the Association's assets and is governed by a General Financing Agreement (GFA). The GFA and promissory note are subject to periodic renewals in the normal course of business. The Association was in compliance with the terms and conditions of the GFA as of December 31, 2018. Substantially all borrower loans are match-funded with CoBank. Payments and disbursements are made on the note payable to CoBank on the same basis the Association collects payments from and disburses on borrower loans. The interest rate may periodically be adjusted by CoBank based on the terms and conditions of the borrowing. The weighted average interest rate was 2.40 percent for the year ended December 31, 2018. The weighted average interest rate was 1.76 percent for the year ended December 31, 2017 and 1.31 percent for the year ended December 31, 2016.

CoBank, 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 are within the specified limitations.

## NOTE 7 – MEMBERS' EQUITY

A description of the Association's capitalization requirements, protection mechanisms, regulatory capitalization requirements and restrictions, and equities are provided below. Members' equity is described and governed by the Association's capitalization policies. Farm Credit East's capitalization policies are specified in the Bylaws and in the Capitalization Plan approved by the Board of Directors. Copies of the Association's Bylaws and Capitalization Plan are available to members at any time.

### CAPITAL STOCK AND PARTICIPATION CERTIFICATES

In accordance with the Farm Credit Act, and the Association's capitalization Bylaws and Capitalization Plan, each Association borrower, as a condition of borrowing, is required at the time the loan is made, to invest in Class B Stock for agricultural loans or Class B Participation Certificates for country home and farm related business loans. Association Bylaws require that borrowers acquire capital stock or participation certificates, as a condition of borrowing, at least the lesser of $1,000 or 2 percent of the amount of the loan, and not more than 10 percent of the amount of the loan.

Pursuant to the Association Capitalization Plan, the Association Board has determined that Class B stock and Class B participation certificates shall be issued as follows:

For all loans (except where indicated below) Class B stock and Class B participation certificates shall be issued equal to one thousand dollars per customer as a condition of borrowing from this Association. For purposes of borrower stock, a customer is defined as the primary borrower on a loan. The intent of this policy is for each primary customer to have one thousand dollars of stock, regardless of the number of loans or balance on those loans to that customer. Stock shall be purchased at the beginning of a customer's relationship and will not be retired until all loans to that customer are paid in full and there are no funds available for advances.

Exceptions to this policy are:

- At the time of the Farm Credit East mergers (in 2010 and 2014), certain customers with less than one thousand dollars of stock were "grandfathered" at the stock level at conversion. Grandfathered customer stock will be frozen at converted levels until all loans are repaid, at which time the stock will be retired, or increased to one thousand dollars at the time of a future advance or credit action
- Certain small borrowers (customers with total commitment less than ten thousand dollars initially) will be issued at 10 percent of the initial commitment, consistent with By-Law limitations
- Certain interests in loans sold to other financial institutions
- Loans to be sold into the secondary market

The borrower acquires ownership of the capital stock or participation certificates at the time the loan is made, but usually does not make a cash investment. The aggregate par value is 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. All stock and participation certificates are retired at the discretion of the Association's Board of Directors after considering the capitalization plan as well as regulatory and other requirements.

**REGULATORY CAPITALIZATION REQUIREMENTS AND RESTRICTIONS**

The Farm Credit Administration sets minimum regulatory capital requirements for Banks and Associations. Effective January 1, 2017, new regulatory capital requirements for Banks and Associations were adopted. These new requirements replaced the core surplus and total surplus requirements with Common Equity Tier 1, Tier 1 Capital and Total Capital risk-based capital ratio requirements. The new requirements also replaced the existing net collateral ratio for System Banks with a Tier 1 Leverage ratio and an Unallocated Retained Earnings (URE) and URE Equivalents Leverage ratio that are applicable to both the Banks and Associations. The Permanent Capital Ratio continues to remain in effect; however, the risk-adjusted assets are calculated differently than in the past.

The following sets forth the regulatory capital ratio requirements and ratios at December 31, 2018:

| Ratio | Primary Components of Numerator | Denominator | Minimum Requirement | Minimum with Buffer* | Ratios as of December 31, 2018 |
|---|---|---|---|---|---|
| Common Equity Tier 1 (CET1) Capital | Unallocated retained earnings (URE), common cooperative equities (qualifying capital stock and allocated equity)[1] | Risk-adjusted assets | 4.5% | 7.0% | 17.72% |
| Tier 1 Capital | CET1 Capital, non-cumulative perpetual preferred stock | Risk-adjusted assets | 6.0% | 8.5% | 17.72% |
| Total Capital | Tier 1 Capital, allowance for loan losses[2], common cooperative equities[3], and term preferred stock and subordinated debt[4] | Risk-adjusted assets | 8.0% | 10.5% | 18.92% |
| Tier 1 Leverage** | Tier 1 Capital | Total assets | 4.0% | 5.0% | 18.53% |
| Unallocated Retained Earnings and URE Equivalents (UREE) Leverage | URE and URE Equivalents | Total assets | 1.5% | — | 20.31% |
| Permanent Capital | Retained earnings, common stock, non-cumulative perpetual preferred stock and subordinated debt, subject to certain limits | Risk-adjusted assets | 7.0% | — | 17.91% |

* The new capital requirements have a three-year phase-in of the capital conservation buffer applied to the risk-adjusted capital ratios. There is no phase-in of the leverage buffer. Amounts shown reflect the full capital conservation buffer.

** Must include the regulatory minimum requirement for the URE and UREE Leverage ratio.

1 Equities outstanding 7 or more years

2 Capped at 1.25% of risk-adjusted assets

3 Outstanding 5 or more years, but less than 7 years

4 Outstanding 5 or more years

If the capital ratios fall below the total 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.

An existing regulation empowers FCA 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.

## DESCRIPTION OF EQUITIES

Each owner or joint owners of Class B stock are entitled to a single vote, while Class B participation certificates provide no voting rights to their owners. Voting stock may not be transferred to another person unless such person is eligible to hold voting stock. At December 31, 2018, the Association had 2,757,515 shares of Class B stock outstanding at a par value of $5 per share, 257,695 shares of Class B participation certificates outstanding at a par value of $5 per share, and 688 shares of Class C stock outstanding at a par value of $5 per share.

Ownership of stock, participation certificates, or allocated surplus is sometimes subject to certain risks that could result in a partial or complete loss. These risks include excessive levels of loan losses experienced by the Association, losses resulting from contractual and statutory obligations, impairment of ACB stock owned by the Association, losses resulting from adverse judicial decisions or other losses that may arise in the course of business. In the event of such impairment, borrowers would remain liable for the full amount of their loans.

Any losses which result in impairment of capital stock and participation certificates would be allocated to such purchased capital on a pro rata basis impairing Class B stock and participation certificates. In the case of liquidation or dissolution of the Association, capital stock, participation certificates and allocated surplus would be utilized as necessary to satisfy any remaining obligations in excess of the amounts realized on the sale or liquidation of assets.

## PATRONAGE DISTRIBUTIONS

At the end of each year, the Association's Board of Directors evaluates whether to retain the Association's net income to strengthen its capital position or to distribute a portion of the net income to customers by declaring a qualified/cash patronage distribution. Patronage dividends are based on one year's operating results. The portion of patronage-sourced net income not distributed is also allocated to patrons in the form of nonqualified written notices of allocation. These nonqualified written notices of allocation are included in unallocated retained earnings. The Board of Directors considers these unallocated earnings to be permanently invested in the Association.

The table below summarizes the qualified/cash patronage distributions for the years ending December 31, 2018, 2017 and 2016. In August 2018 the Board of Directors approved a special cash dividend which was distributed in October 2018. The cash patronage dividends are distributed in February of the subsequent year.

| Earnings Year | Cash Distribution | Special Cash Distribution |
|---|---|---|
| 2018 | $65,000 | $15,000 |
| 2017 | $60,000 | - |
| 2016 | $56,000 | - |

## ACCUMULATED OTHER COMPREHENSIVE INCOME/LOSS

Farm Credit East, ACA reports accumulated other comprehensive income (loss) as a component of members' equity, which is reported net of taxes as follows:

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Unrealized losses on cash flow hedges | $ (6,306) | $ (7,933) | $ (3,765) |
| Pension and other benefit plans | (39,447) | (44,035) | (50,597) |
| Total | $ (45,753) | $ (51,968) | $ (54,362) |

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

| | Unrealized losses on cash flow hedges, net | Pension and other benefit plans |
|---|---|---|
| **Balance at December 31, 2017** | $ (7,933) | $ (44,035) |
| Net current period other comprehensive income | 1,627 | 4,588 |
| **Balance at December 31, 2018** | $ (6,306) | $ (39,447) |

| | Unrealized losses on cash flow hedges, net | Pension and other benefit plans |
|---|---|---|
| **Balance at December 31, 2016** | $ (3,765) | $ (50,597) |
| Net current period other comprehensive (loss) income | (4,168) | 6,562 |
| **Balance at December 31, 2017** | $ (7,933) | $ (44,035) |

| | Unrealized losses on cash flow hedges, net | Pension and other benefit plans |
|---|---|---|
| **Balance at December 31, 2015** | $ (401) | $ (45,005) |
| Net current period other comprehensive (loss) | (3,364) | (5,592) |
| **Balance at December 31, 2016** | $ (3,765) | $ (50,597) |

## NOTE 8 – PATRONAGE DISTRIBUTION FROM FARM CREDIT INSTITUTIONS

Patronage income recognized from Farm Credit Institutions to the Association is presented below:

| Year Ended December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| CoBank | $ 32,647 | $ 27,901 | $ 26,463 |
| Other | 2,576 | 1,701 | 1,553 |
| Total | $ 35,223 | $ 29,602 | $ 28,016 |

Patronage distributions from CoBank relating to the Association's average direct note borrowings are distributed in cash. For CoBank patronage relating to average participated loan volume, a portion is distributed in cash and the remainder in the form of stock. CoBank patronage earned in 2018 includes a $28.5 million accrual plus a $4.1 million special cash patronage distribution received in September 2018. The $28.5 million accrued will be paid by CoBank in March 2019. The amount declared in December 2017 and December 2016 were paid in March of the subsequent year.

## NOTE 9 – INCOME TAXES

The provision for income taxes consists of the following:

| Year Ended December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Current: | | | |
| Federal | $ 963 | $ 1,071 | $ 1,109 |
| State | 331 | 210 | 294 |
| Total current provision for income taxes | 1,294 | 1,281 | 1,403 |
| Deferred: | | | |
| Federal | (5,088) | 3,191 | (6) |
| State | (1,738) | (1,022) | (8) |
| Total deferred provision (benefit) from income taxes | (6,826) | 2,169 | (14) |
| (Decrease) increase in deferred tax asset valuation allowance | 6,826 | (2,169) | 14 |
| Provision for income taxes | $ 1,294 | $ 1,281 | $ 1,403 |

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

| Year Ended December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Federal tax at statutory rate | $ 37,635 | $ 56,472 | $ 53,466 |
| State tax, net | 261 | 137 | 191 |
| Effect of nontaxable activities | (26,555) | (42,272) | (34,110) |
| Patronage distribution | (15,506) | (18,388) | (18,184) |
| Change in Tax Rates | - | 8,195 | - |
| Change in valuation allowance | 6,826 | (2,169) | 14 |
| Other | (1,367) | (694) | 26 |
| Provision for income taxes | $ 1,294 | $ 1,281 | $ 1,403 |

The Tax Cuts and Jobs Act of 2017 (TCJA) was enacted in late 2017 which among other things lowered the federal corporate tax rate from 35 percent to 21 percent beginning in 2018. In accordance with GAAP, the change to the lower corporate tax rate led to a revaluation of our deferred tax liabilities and deferred tax assets in 2017, the period of enactment. Management's position is that none of the deferred tax benefits will be realized in future periods and accordingly a valuation allowance is provided against net deferred tax assets. Accordingly, no net tax benefit was recognized.

Deferred tax assets and liabilities are comprised of the following:

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Deferred income tax assets: | | | |
| Allowance for loan losses | $ 12,320 | $ 10,835 | $ 12,254 |
| Nonaccrual loan interest | 913 | 634 | 714 |
| Annual leave | 576 | 597 | 875 |
| Health reserve | 445 | 462 | 464 |
| Long term incentive | 746 | 691 | 976 |
| Deferred compensation | 1,226 | 1,168 | 1,585 |
| Retirement plans | 6,690 | 7,236 | 11,851 |
| Postretirement benefits other than pensions | 216 | 222 | 360 |
| Other | 217 | 227 | 261 |
| Gross deferred tax assets | 23,349 | 22,072 | 29,340 |
| Less: valuation allowance | (21,796) | (16,517) | (21,358) |
| Deferred tax assets, net | 1,553 | 5,555 | 7,982 |
| Deferred income tax liabilities: | | | |
| Bank patronage after December 31, 1992 | (418) | (447) | (671) |
| CoBank patronage | - | (3,951) | (5,553) |
| Depreciation | (764) | (862) | (1,402) |
| Deferred gain | (371) | (295) | (356) |
| Gross deferred tax liability | (1,553) | (5,555) | (7,982) |
| Net deferred tax asset | $ - | $ - | $ - |

The calculation of deferred tax assets and liabilities involves various management estimates and assumptions as to future taxable earnings, including the amount of non-patronage income and patronage income retained. Based on the Association's strategic financial plan, primarily expected future patronage programs and the tax benefits of the FLCA subsidiary, management believes that as of the end of 2018, none of the Association's net deferred tax assets will be realizable in future periods. Accordingly, a valuation allowance is provided against the net deferred tax assets since it has been determined that it is more likely than not (over 50 percent probability), based on management's estimate, that they will not be realized.

The Association has no unrecognized tax benefits for which liabilities have been established for the years ended December 31, 2018, 2017 and 2016. The Association recognizes interest and penalties related to unrecognized tax benefits as an adjustment to income tax expense. The amount of interest recognized was $0 and the amount of penalties recognized was $0 for 2018. The total amount of unrecognized tax benefits that, if recognized would affect the effective tax rate is $0. The Association did not have any positions for which it is reasonably possible that the total amounts of unrecognized tax benefits will significantly increase or decrease within the next 12 months. The tax years that remain open for federal and state income tax jurisdictions are 2015 and forward.

## NOTE 10 – EMPLOYEE BENEFIT PLANS

The Association has employer-funded, qualified defined benefit pension plans, which are noncontributory and cover employees hired prior to January 1, 2007 (except the former Maine employees who are participants in the noncontributory defined contribution plan). Depending on the date of hire, benefits are determined by a formula based on years of service and final average pay. Effective January 1, 2007, the Association closed the remaining qualified defined benefit pension plan to new participants.

The Association also has a noncontributory, unfunded nonqualified supplemental executive retirement plan (SERP) covering the CEO as of December 31, 2018. The Association holds assets in a trust fund related to the SERP; however, such funds remain Association assets and are not included as plan assets in the accompanying disclosures. The defined benefit pension plans and SERP are collectively referred to as Retirement Plans.

The Association has a 401(k) savings plan pursuant to which the Association matches 100 percent of employees' elective contributions up to a maximum employee contribution of 6 percent of compensation. In addition, under this plan, employees hired on or after January 1, 2007 receive additional non-elective employer defined contributions. The Association contributions to the 401(k) savings plan and the employer defined contribution plan, which are recorded as employee compensation expense, was $2.9 million, $2.8 million and $2.5 million at December 31, 2018, 2017 and 2016 respectively. For eligible senior managers, including senior officers, there also is a nonqualified deferred compensation plan, which includes benefits not provided under the employee savings plan due to certain Internal Revenue Code limitations.

Eligible retirees also have other postretirement benefits (OPEB), which primarily include access to health care benefits. Most participants pay the full premiums associated with these other postretirement health care benefits. Premiums are adjusted annually.

The following table provides a summary of the changes in the Retirement Plans' projected benefit obligations and fair values of assets over the three-year period ended December 31, 2018 as well as a statement of funded status as of December 31 of each year.

The projected benefit obligation and the accumulated benefit obligation for the Retirement Plans as of year-end are as follows:

| Year ended December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| **Change in projected benefit obligation:** | | | |
| Projected benefit obligation at beginning of year | $ 157,596 | $ 144,452 | $ 131,323 |
| Service cost | 3,341 | 3,391 | 3,396 |
| Interest cost | 5,756 | 6,066 | 5,842 |
| Plan amendments | - | - | 437 |
| Actuarial (gain) loss | (10,532) | 8,372 | 8,110 |
| Benefits paid | (7,031) | (4,685) | (4,656) |
| Projected benefit obligation at end of year | $ 149,130 | $ 157,596 | $ 144,452 |
| **Change in plan assets:** | | | |
| Fair value of plan assets at beginning of year | $ 130,251 | $ 114,646 | $ 110,579 |
| Actual return on plan assets | (1,742) | 17,990 | 6,491 |
| Employer Contributions | 2,358 | 2,300 | 2,232 |
| Benefits paid | (7,031) | (4,685) | (4,656) |
| Fair value of plan assets at end of year | $ 123,836 | $ 130,251 | $ 114,646 |
| **Funded status of the plan:** | | | |
| Net asset (liability) recognized in the balance sheet | $ (25,294) | $ (27,345) | $ (29,806) |
| **Amounts recognized in accumulated other comprehensive income:** | | | |
| Unrecognized prior service cost | $ 4,091 | $ 5,137 | $ 6,190 |
| Unrecognized net actuarial loss | 33,368 | 38,090 | 43,596 |
| Total Loss | $ 37,459 | $ 43,227 | $ 49,786 |

The projected benefit obligation and the accumulated benefit obligation for the Retirement Plans as of year-end are as follows:

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| **Projected Benefit Obligation:** | | | |
| Funded plans | $ 143,499 | $ 151,989 | $ 139,694 |
| Unfunded SERP | 5,631 | 5,607 | 4,758 |
| Total | $ 149,130 | $ 157,596 | $ 144,452 |
| **Accumulated Benefit Obligation:** | | | |
| Funded plans | $ 124,934 | $ 130,618 | $ 116,357 |
| Unfunded SERP | 4,833 | 4,695 | 3,794 |
| Total | $ 129,767 | $ 135,313 | $ 120,151 |

The $123.8 million in fair value of plan assets shown in a previous table relates only to the qualified retirement plans. As depicted in the preceding table, such plans had a projected benefit obligation and an accumulated benefit obligation of $143.5 million and $124.9 million, respectively, as of December 31, 2018.

The Association holds assets in trust accounts related to its SERP plan. Such assets had a fair value of $4.9 million as of December 31, 2018, which is included in "Other Assets" in the accompanying consolidated balance sheet. Unlike the assets related to the qualified plans, those funds remain Association assets and would be subject to general creditors in a bankruptcy or liquidation. Accordingly, they are not included as part of the assets shown in the previous table. As depicted in the preceding table, the SERP plan has a projected benefit obligation and an accumulated benefit obligation of $5.6 million and $4.8 million, respectively, as of December 31, 2018.

The following table represents the components of net periodic benefit cost and other amounts recognized in other comprehensive income as of December 31 as follows:

| Year Ended December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| **Net periodic benefit cost** | | | |
| Service cost | $ 3,341 | $ 3,391 | $ 3,396 |
| Interest cost | 5,755 | 6,066 | 5,842 |
| Expected return on plan assets | (7,337) | (6,962) | (7,359) |
| Amortization of unrecognized: | | | |
| Prior service cost | 1,047 | 1,052 | 1,006 |
| Actuarial loss | 3,270 | 2,851 | 2,313 |
| Net periodic benefit cost | $ 6,076 | $ 6,398 | $ 5,198 |
| **Other Changes in Plan Assets and Benefit Obligation Recognized in Other Comprehensive Income** | | | |
| Net actuarial (gain) loss | $ (1,451) | $ 8,978 | $ 4,248 |
| Prior service cost | - | 437 | 3,921 |
| Amortization of: | | | |
| Prior service credit | (1,047) | (1,006) | (410) |
| Net actuarial gain | (3,270) | (2,313) | (2,953) |
| Total recognized in other comprehensive income | $ (5,768) | $ 6,096 | $ 4,806 |

The Association anticipates that its total pension expense for all retirement plans will be approximately $5.0 million in 2019 compared to $6.1 million in 2018. The Association's estimated amortization to be included in accumulated other comprehensive income to be approximately $2.9 million in 2019 compared to $4.3 million in 2018.

## ASSUMPTIONS

The Association measures plan obligations and annual expense using assumptions designed to reflect future economic conditions. As the bulk of pension benefits will not be paid for many years, the computations of pension expenses and benefits are based on assumptions about discount rates, estimates of annual increases in compensation levels, and expected rates of return on plan assets.

The weighted-average rate assumptions used in the measurement of the Association's benefit obligations are as follows:

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Discount rate | 4.45% | 3.75% | 4.30% |
| Rate of compensation increase (qualified plans only) | 3.60% | 3.60% | 4.75% |

The weighted-average rate assumptions used in the measurement of our net periodic benefit cost are as follows:

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| Discount rate | 3.75% | 4.30% | 4.55% |
| Expected rate of return on plan assets (qualified plans only) | 6.00% | 6.00% | 6.63% |
| Rate of compensation increase (qualified plans only) | 3.60% | 4.75% | 4.75% |

The discount rates are calculated using a spot yield curve method developed by an independent actuary. The approach maps a high-quality bond yield curve to the duration of the plans' liabilities, thus approximating each cash flow of the liability stream to be discounted at an interest rate specifically applicable to its respective period in time.

The expected rate of return on plan assets is established based on current target asset allocations and the anticipated future returns on those asset classes. The expected rate of return on plan assets assumption is also consistent with the pension plans' long-term interest rate assumption used for funding purposes.

## PLAN ASSETS

The asset allocation target ranges for the qualified defined benefit pension plans follow the investment policy adopted by the retirement trust committee. This policy provides for a certain level of committee flexibility in selecting target allocation percentages. The actual asset allocations at December 31, 2018, 2017 and 2016 are shown in the following table, along with the adopted range for target allocation percentages by asset class. The actual allocation percentages reflect the market values at year-end and may vary during the course of the year. Plan assets are generally rebalanced to a level within the target range each year at the direction of the trustees.

| | | Percentage of Plan Assets at December 31, | | |
|---|---|---|---|---|
| | Target Allocation Range | 2018 | 2017 | 2016 |
| **Asset Category** | | | | |
| Domestic Equity | 32.5 – 42.5% | 38% | 41% | 45% |
| Domestic Fixed Income | 32.5 – 42.5 | 40 | 35 | 35 |
| International Equity | | | | |
| Emerging Markets Equity and Fixed Income | 10 – 30 | 17 | 19 | 15 |
| Hedge Funds | 10 – 30 | 5 | 5 | 5 |
| Total | 100% | 100% | 100% | 100% |

The assets of the qualified defined benefit pension plans consists primarily of investments in various domestic equity, international equity and bond funds. These funds do not contain any significant investments in a single entity, industry, country or commodity, thereby mitigating concentration risk.

The following table presents the major categories of plan assets that are measured at fair value at December 31, 2018 for each of the fair value hierarchy levels as defined in Note 2:

| December 31, 2018 | Level 1 | Level 2 | Level 3 | NAV(1) | Total |
|---|---|---|---|---|---|
| **Asset category** | | | | | |
| Cash | $ 278 | $ - | $ - | $ - | $ 278 |
| Domestic Equity: | | | | | |
| Large-cap growth funds[2] | 19,498 | - | - | 21,429 | 40,927 |
| Small-cap growth funds[2] | - | - | - | 6,783 | 6,783 |
| International Equity: | | | | | |
| International funds[3] | 10,543 | - | - | 2,494 | 13,037 |
| Domestic Fixed Income: | | | | | |
| Total return funds[4] | 29,519 | - | - | - | 29,519 |
| Bond funds[5] | - | 19,464 | - | - | 19,464 |
| Emerging Markets: | | | | | |
| Equity and fixed income funds[6] | 2,235 | - | - | 5,491 | 7,726 |
| Hedge Funds[7] | - | - | - | 6,102 | 6,102 |
| Total | $ 62,073 | $ 19,464 | $ - | $ 42,299 | $ 123,836 |

1 Certain investments that are measured at fair value using the net asset value (NAV) per share as a practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the net assets in the pension plans.
2 Funds invest primarily in diversified portfolios of common stocks of U.S. companies.
3 Funds invest primarily in a diversified portfolio of equities of non-U.S. companies.
4 Funds invest primarily in a diversified portfolio of investment grade debt securities and cash instruments.
5 Funds invest primarily in U.S. Treasury debt securities and corporate bonds of U.S. companies.
6 Funds invest in equities and corporate debt securities of companies located in emerging international markets.
7 Funds invest in diversified portfolios of stocks, bonds and various other financial instruments.

Level 1 plan assets are funds with quoted daily net asset values that are directly observable by market participants. The fair value of these funds is the net asset value at close of business on the reporting date. Level 2 plan assets are funds with quoted net asset values that are not directly observable by market participants. A significant portion of the underlying investments in these funds have individually observable market prices, which are utilized by the plan's trustee to determine a net asset value at close of business on the reporting date. Level 3 plan assets are funds with unobservable net asset values and supported by limited or no market activity. There were no purchases or sales of Level 3 plan assets in the current year. No transfers into or out of the three levels of assets occurred in the current year.

## EXPECTED CONTRIBUTIONS

In 2019 the Association expects to contribute $2.4 million to its defined benefit retirement plans and $0.1 million to its trust fund related to the SERP.

## ESTIMATED FUTURE BENEFIT PAYMENTS

The Association expects to make the following benefit payments for its retirement plans, which reflect expected future service, as appropriate.

| | Estimated Benefit Payouts |
|---|---|
| 2019 Payouts | $ 7,099 |
| 2020 Payouts | 10,617 |
| 2021 Payouts | 8,206 |
| 2022 Payouts | 8,047 |
| 2023 Payouts | 11,954 |
| 2024 Payouts to 2028 Payouts | 45,548 |

### OTHER POSTRETIREMENT BENEFITS

Postretirement benefits other than pensions (primarily health care benefits) are also provided to retirees of the Association. The following table sets forth the funding status and weighted average assumptions used to determine post-retirement health care benefit obligations.

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| (Accrued) Postretirement benefit cost | $ (100) | $ (34) | $ (98) |
| Accumulated postretirement benefit obligation | $ (820) | $ (842) | $ (910) |
| Accumulated other comprehensive loss | $ 721 | $ 808 | $ 811 |
| Net periodic expense | $ 115 | $ 124 | $ 194 |
| Discount rate | 4.45% | 3.75% | 4.30% |
| Ultimate healthcare trend rate | 4.50% | 4.50% | 4.50% |

Substantially all postretirement healthcare plans have no plan assets and are funded on a current basis by employer contributions and retiree premium payments.

The Association anticipates its postretirement benefits expense will be approximately $0.1 million in 2019 compared to $0.1 million in 2018.

## NOTE 11 – RELATED PARTY TRANSACTIONS

In the ordinary course of business, the Association enters into loan transactions with directors and senior officers 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 and collateral, as those prevailing at the time for comparable transactions with unrelated borrowers.

Loan information to related parties is shown below.

| December 31 | 2018 | 2017 | 2016 |
|---|---|---|---|
| New loans/advances | $ 73,063 | $ 90,948 | $ 125,839 |
| Repayments | 62,845 | 75,325 | 122,969 |
| Other | (27,139) | (106,457) | 139,609 |
| Ending balance | $ 79,830 | $ 96,751 | $ 187,585 |

Other changes to the related party loan balance represent changes in the composition of Association directors and/or senior officers during 2018. In the opinion of management, none of these loans outstanding at December 31, 2018 involved more than a normal risk of collectability and none of these loans are in nonaccrual status.

As of December 31, 2018, the Association's investment in Financial Partners, Inc. (FPI) was $3.7 million which is included in other assets. Accounting for this investment is on the equity method. FPI provides accounting, information technology, and other services to the Association on a fee basis. Fees paid to FPI for the years ended December 31, 2018, 2017 and 2016 were $9.8 million, $9.1 million and $7.4 million respectively.

As of December 31, 2018, the Association's investment in Rural Investments, LLC was $0.2 million which is included in other assets. Interest income recorded related to Rural Investments was $50 thousand for the year ended December 31, 2018, $0.2 million for the year ended December 31, 2017 and $0.1 million for the year ended December 31, 2016.

As of December 31, 2018, the Association's investment in FarmStart, LLP was $2.1 million which is included in other assets. Accounting for this investment is on the equity method. FarmStart losses of $29 thousand were recorded for December 31, 2018. Income recorded relating to FarmStart was $60 thousand for the year ended December 31, 2017. Losses were also recorded for the year ended December 31, 2016 of $28 thousand.

As of December 31, 2018, the Association's investment in AgDirect, LLP is $3.6 million which was included in other assets. Accounting for this investment is on a cost basis. Income recorded related to AgDirect, LLP for the year ended December 31, 2018 was $0.3 million and $0.1 million for the year ended December 31, 2017.

Farm Credit East is a majority owner in Crop Growers, LLP which provides multi-peril crop insurance as an agent. Net income recorded related to Crop Growers for the years ended December 31, 2018, 2017 and 2016 were $2.0 million, $1.7 million and $1.9 million respectively.

As of December 31, 2018, Farm Credit East had equity ownership interests in the following Unincorporated Business Entities (UBE) which were all formed for the purpose of acquiring and holding other property owned. During 2018, there was no activity in these UBE's.

| Name | Ownership % |
|---|---|
| RHBarnes RD, LLC | 100% |
| Farm Credit East Rochester/Plymouth REO, LLC | 100% |
| Eastern Greenhouses, LLC | 100% |

## NOTE 12 – REGULATORY ENFORCEMENT MATTERS

There are no regulatory enforcement actions in effect for the Association.

## NOTE 13 – COMMITMENTS AND CONTINGENCIES

The Association has various commitments outstanding and contingent liabilities. With regard to contingent liabilities, there are no actions pending against the Association in which claims for monetary damages are asserted.

The Association may participate in financial instruments with off-balance-sheet risk to satisfy the financing needs of its borrowers and to manage their exposure to interest-rate risk. These financial instruments include commitments to extend credit, commercial letters of credit and standby 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. Standby letters of credit are irrevocable agreements to guarantee payments of specified financial obligations. Commitments and letters of credit generally have fixed expiration dates or other termination clauses and may require payment of a fee. At December 31, 2018, $2.0 billion of commitments to extend credit, $38.0 million of commercial letters of credit and $23.2 million of standby letters of credit were outstanding.

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 Balance Sheet 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. Reserves related to unfunded commitments to extend credit are included in the calculation of the allowance for loan losses.

## NOTE 14 – FAIR VALUE MEASUREMENTS

Accounting 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. The fair value measurement is not an indication of liquidity. See Note 2 for a more complete description of the three input levels.

### SENSITIVITY TO CHANGES IN SIGNIFICANT UNOBSERVABLE INPUTS

Quoted market prices may not be available for the instruments presented below. Accordingly, fair values are based on internal models that consider 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 FAIR VALUE MEASUREMENTS

Assets and liabilities measured at fair value on a recurring basis at December 31 for each of the fair value hierarchy values are summarized below:

| | Fair Value Measurement Using | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total Fair Value |
| **Assets:** | | | | |
| **2018** | | | | |
| Derivative assets | $ - | $ 1,809 | $ - | $ 1,809 |
| Assets held in trust | $ 12,082 | $ - | $ - | $ 12,082 |
| **2017** | | | | |
| Assets held in trust | $ 11,294 | $ - | $ - | $ 11,294 |
| **2016** | | | | |
| Derivative assets | $ - | $ 243 | $ - | $ 243 |
| Assets held in trust | $ 8,766 | $ - | $ - | $ 8,766 |
| **Liabilities:** | | | | |
| **2018** | | | | |
| Derivative liabilities | $ - | $ 7,171 | $ - | $ 7,171 |
| **2017** | | | | |
| Derivative liabilities | $ - | $ 6,967 | $ - | $ 6,967 |
| **2016** | | | | |
| Derivative liabilities | $ - | $ 3,939 | $ - | $ 3,939 |

Assets measured at fair value on a non-recurring basis at December 31 for each of the fair value hierarchy values are summarized below:

| | Fair Value Measurement Using | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total Fair Value |
| **Assets:** | | | | |
| **2018** | | | | |
| Impaired loans | $ - | $ - | $ 43,936 | $ 43,936 |
| Other Property Owned | $ - | $ - | $ 2,844 | $ 2,844 |
| Rural Investments, LLC | $ - | $ - | $ 250 | $ 250 |
| **2017** | | | | |
| Impaired loans | $ - | $ - | $ 35,575 | $ 35,575 |
| Other Property Owned | $ - | $ - | $ 1,582 | $ 1,582 |
| Rural Investments, LLC | $ - | $ - | $ 465 | $ 465 |
| **2016** | | | | |
| Impaired loans | $ - | $ - | $ 53,383 | $ 53,383 |
| Other Property Owned | $ - | $ - | $ 833 | $ 833 |
| Rural Investments, LLC | $ - | $ - | $ 842 | $ 842 |

Financial assets and financial liabilities measured at carrying amounts and not measured at fair value on the Balance Sheet for each of the fair value hierarchy values are summarized below:

| December 31 | 2018 | | | 2017 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Carrying Amount | Fair Value | Fair Value Hierarchy | Carrying Amount | Fair Value | Fair Value Hierarchy | Carrying Amount | Fair Value | Fair Value Hierarchy |
| **Financial assets:** | | | | | | | | | |
| Loans, net | $6,885,983 | $6,917,614 | Level 3 | $6,529,449 | $6,544,083 | Level 3 | $6,210,592 | $6,209,866 | Level 3 |
| Cash | $ 23,395 | $ 23,395 | Level 1 | $ 48,736 | $ 48,736 | Level 1 | $ 22,581 | $ 22,581 | Level 1 |
| **Financial liabilities:** | | | | | | | | | |
| Notes payable to ACB | $5,657,199 | $ 5,589,455 | Level 3 | $5,414,435 | $ 5,405,361 | Level 3 | $5,161,666 | $ 5,155,582 | Level 3 |

## VALUATION TECHNIQUES

As more fully discussed in Note 2 – Summary of Significant Accounting Policies, accounting guidance establishes a fair value hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The following presents a brief summary of the valuation techniques used for the Association's assets and liabilities subject to fair value measurement.

## CASH

The carrying value of cash is a reasonable estimate of fair value.

## ASSETS HELD IN TRUST

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

## LOANS

Fair value is estimated by discounting the expected future cash flows using CoBank's and/or the Association's current interest rates at which similar loans would be made to borrowers with similar credit risk. The discount rates are based on the District's current loan origination rates as well as management estimates of credit risk. Management has no basis to determine whether the estimated fair values presented would be indicative of the assumptions and adjustments that a purchaser of the Association's loans would seek in an actual sale, which could be less.

## OTHER PROPERTY OWNED

Other property owned is generally classified as Level 3. The process for measuring the fair value of the other property owned involves the use of appraisals or other market-based information. Costs to sell represent transaction costs and are not included as a component of the asset's fair value. As a result, these fair value measurements fall within Level 3 of the hierarchy.

## IMPAIRED LOANS

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

## NOTES PAYABLE TO COBANK, ACB

The 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 note 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 plus accrued interest on the notes payable. This assumption implies that earnings on the Association's interest margin are used to fund operating expenses and capital expenditures.

## RURAL INVESTMENTS, LLC

For these investments, the fair value is based upon the underlying loans contained in the investment. The fair value measurement process uses independent appraisals and other market-based information, but in many cases it also requires significant input based on management's knowledge of and judgment about current market conditions, specific issues relating to the collateral and other matters. As a result, these fair value measurements fall within Level 3 of the hierarchy. When the value of the collateral is less than the principal balance of the investment a loss is realized.

### DERIVATIVES

Exchange-traded derivatives valued using quoted prices are classified within Level 1 of the valuation hierarchy. However, few classes of derivative contracts are listed on an exchange; thus, the Association's derivative positions are valued using internally developed models that use as their basis readily observable market parameters and are classified within Level 2 of the valuation hierarchy. Such derivatives include basic interest rate swaps. Derivatives that are valued based upon models with significant unobservable market parameters and that are normally traded less actively or have trade activity that is one way are classified within Level 3 of the valuation hierarchy. The Association does not have any derivatives classified within Level 3.

The models used to determine the fair value of derivative assets and liabilities use an income approach based on observable market inputs, primarily the LIBOR swap curve and volatility assumptions about future interest rate movements.

## NOTE 15 – DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

The Association maintains an overall interest rate risk management strategy that incorporates the use of derivative instruments to minimize significant unplanned fluctuations in earnings that are caused by interest rate volatility. The Association's goal is to manage interest rate sensitivity by modifying the repricing or maturity characteristics of certain balance sheet assets or liabilities so that the net interest margin is not adversely affected by movements in interest rates. As a result of interest rate fluctuations, the Association's interest income and interest expense of hedged variable-rate assets, will increase or decrease. The effect of this variability in earnings is expected to be substantially offset by the Association's gains and losses on the derivative instruments that are linked to these hedged assets. The Association considers its strategic use of derivatives to be a prudent method of managing interest rate sensitivity, as it prevents earnings from being exposed to undue risk posed by changes in interest rates.

The Association enters into interest rate swaps to stabilize net interest income on variable priced loan assets, to the extent they are funded with equity. Under interest rate swap a rrangements, the Association agrees with other parties (CoBank) to exchange, at specified intervals, payment streams calculated on a specified notional principal amount, with at least one stream based on a specified floating rate index.

The Association's interest-earning assets, to the degree they are funded with debt, are matched with similarly priced and termed liabilities. Volatility in net interest income, comes from equity funded, variable priced assets. To the degree that variable priced assets are funded with equity, interest rate swaps in which the Association pays the floating rate and receives the fixed rate (receive fixed swaps) are used to reduce the impact of market fluctuations on the Association's net interest income.

By using derivative instruments, the Association exposes itself to credit and market risk. If a counterparty fails to fulfill its performance obligations under a derivative contract, the Association's credit risk will equal the fair value gain in a derivative. Generally, when the fair value of a derivative contract is positive, this indicates that the counterparty owes the Association, thus creating a repayment risk for the Association. When the fair value of the derivative contract is negative, the Association owes the counterparty and, therefore, assumes no repayment risk. The Association minimizes the credit (or repayment) risk by entering into transactions only with CoBank, its funding bank and are collateralized through loan agreements. Notwithstanding collateral and netting provisions, our derivative assets and liabilities are not offset in the accompanying consolidated balance sheets. The Association's derivative activities are monitored by senior management and the Board of Directors.

### CASH FLOW HEDGES

The Association uses "receive fixed/pay variable" interest rate swaps to hedge the risk of overall changes in the cash flows of an asset. The asset is defined as a pool of long term variable rate loans equal to the notional amount of the swaps, and not exceeding the Association's equity position. These swaps, which qualify for hedge accounting, have up to a three-year term, with a pay rate indexed to three month LIBOR.

As of December 31, 2018, the Association has executed interest rate swap contracts with CoBank, ACB having a notional amount of $1.0 billion. The fair value of the swap contracts at December 31, 2018 is a net liability of ($5.4) million of which ($6.3) million is reflected in accumulated other comprehensive income due to the highly effective nature of the hedge transaction and $0.9 million of income is recorded in interest expense due to the ineffectiveness of the hedge transactions. The fair value of the hedged assets was $1.8 million and the fair value of the hedged liabilities was $7.2 million. The Association is exposed to credit loss in the event of nonperformance by other parties to the interest rate swap agreement; however, the Association does not anticipate nonperformance by CoBank, ACB.

## NOTE 16 – SUBSEQUENT EVENTS

The Association has evaluated subsequent events through March 11, 2019 which is the date the financial statements were issued or available to be issued. There have been no material subsequent events that would require recognition in our 2018 consolidated financial statements.

# BOARD OF DIRECTOR DISCLOSURES

## BOARD STRUCTURE

The Board consists of thirteen elected directors, one appointed customer director and two appointed outside directors. In the 2019 election cycle there are four open director seats to be elected for four year terms.

Farm Credit East has three Nominating Regions as shown on the map on the inside back cover of this Annual Report. Farm Credit East's bylaws specify four-year terms with a limit of four consecutive terms and that there will be one seat from each Region open for election each year. As part of the Merger with Maine, an additional director seat was added to the Eastern Region which will be up for election every four years. Association Bylaws also specify that director candidates be nominated by Region and be elected by the entire membership. The Board may appoint up to four directors, two of which must be outside directors, i.e. not having a borrowing relationship with Farm Credit East.

The Board is independent of management. The CEO reports to the Board and no management or employees may serve as directors within one year of employment. The Board generally has seven regularly scheduled meetings each year and has established a number of committees to provide concentrated focus and expertise in particular areas and to enhance the overall efficiency of scheduled Board meetings. Each committee created by the Board prepares a charter outlining the committee's purpose, its duties, responsibilities and authorities. All Committees report on their meetings at the regular meeting of the full Board. Minutes of each Committee meeting are documented and approved at the following meeting. The full text of each committee charter is available on our website under "Board Committees" at Farmcrediteast.com.

Association bylaws also established an Executive Committee. The Board has established the following standing committees: a Compensation Committee, Audit Committee, Governance Committee, and an AgInitiatives Committee. The primary responsibilities of each Board Committee are described as follows:

## EXECUTIVE COMMITTEE

The Executive Committee members consist of the board chair, vice chair and three other directors designated by the Board, each representing a nominating region other than those represented by the chair or vice chair. The committee is primarily responsible for providing input and direction to management on the development and implementation of the Association's strategic plan, policies and other significant matters requiring attention between board meetings. The committee also acts as the liaison with the Association's regulator, the FCA.

## COMPENSATION COMMITTEE

The Compensation Committee consists of the Executive Committee. The function of this committee is to review the Association's overall compensation and benefits packages, including the performance and compensation for the Chief Executive Officer, and the funding of these programs.

## AUDIT COMMITTEE

The Audit Committee members are appointed by the Board chair in consultation with the board officers. All members of the Audit Committee are independent of management of Farm Credit East and any other System entity. All committee members are expected to have practical knowledge of finance and accounting, be able to read and have a working understanding of financial statements, or develop that understanding within a reasonable period of time after being appointed to the Committee. Tim C. Chan was appointed to the Board of Directors in April 2015. His current term expires in 2023. The Board has determined that Mr. Chan has the qualifications and experience necessary to serve as the Audit Committee "financial expert," as defined by FCA regulations, and has been designated as such.

The Audit Committee has unrestricted access to representatives of the internal audit and risk management departments, financial management and our independent auditors. The primary purpose of the Audit Committee is to assist the Board in fulfilling its oversight responsibilities related to accounting policies, internal controls, financial reporting practices and regulatory requirements.

The Audit Committee pre-approves all audit and audit-related services and permitted nonaudit services (including the fees and terms thereof) to be performed for the Association by its independent auditors, as negotiated by management. Aggregate fees incurred by the Association for services rendered by its independent auditors, PricewaterhouseCoopers, LLP for the years ended December 31, 2018 and 2017 follow:

| For the year ended December 31 | 2018 | 2017 |
|---|---|---|
| Audit | $ 146,510 | $ 140,200 |
| Audit-related | 25,000 | - |
| Tax | 45,470 | 39,000 |
| Total | $ 216,980 | $ 179,200 |

## GOVERNANCE COMMITTEE

The Governance Committee members are appointed by the board chair in consultation with the board officers. The committee is primarily responsible for the training and education of Board members, the outside director election process, director compensation, ethics, and conflict of interest matters.

### AGINITIATIVES COMMITTEE

The AgInitiatives Committee members are appointed by the board chair in consultation with the board officers. The committee is primarily responsible for directing the Association's lending and financial services program for Young, Beginning, Small and Veteran farmers and ranchers to support the development of agriculture with financial incentives and educational opportunities; represent Farm Credit East on the governing council of FarmStart, LLP and oversee the Association's scholarship program.

## OTHER COMMITTEES

### NOMINATING COMMITTEE

The Nominating Committee is comprised of one member and an alternative member from each branch office, who are elected each year by the membership at the annual stockholder meeting. This committee, which consists of customers who are not seated on the Board of Directors, proactively identifies qualified candidates for Board membership and reviews director nominations, helping to ensure that the Association continues to attract a highly qualified and diverse Board. The Nominating Committee makes a best effort to recommend at least two candidates for each open Board position. Stockholders and interested candidates may gather signatures for petitions to run for the Board following the conclusion of the Nominating Committee's work.

**FARM CREDIT EAST DIRECTORS**
Information regarding directors who served as of December 31, 2018, including business experience in the last five years and any other business interest where a director serves on the board of directors or as a senior officer follows.

**MATTHEW W. BEATON**, Wareham, Mass., became ***Chair of the Farm Credit East Board*** in 2016 and has served as director since 2006, with his current term expiring in 2020. He is also chair of the Board's Executive Committee and a member of the Compensation Committee. Matt is president and owner of Sure-Cran Services, Inc., a custom management company managing more than 550 acres of cranberry bogs in southeastern Massachusetts. Matt is president and owner of Beaton's, Inc., which owns and manages 170 acres of cranberry bogs. Matt is on the Board of Directors of the CCCGA and serves as Vice Chairman. Also, Matt is currently serving his second term as a member of the CoBank Nominating Committee.

**LAURIE K. GRIFFEN**, Schuylerville, NY, has served as director since 2011, with her current term expiring in 2019. She currently serves as ***Vice Chair*** and is a member of the Executive Committee and chair of the Compensation Committee. She previously served as Governance Committee Chair. Laurie is co-owner/operator of Saratoga Sod Farm, Inc., a 600-acre turf grass farm in Stillwater, New York, with her husband Steve. In addition to producing and selling its high quality turf products, Saratoga Sod also provides installation services, sales of seed and fertilizer and the Big Yellow Bag garden soil product to assist its customers across the Northeast. Saratoga Sod also grows roughly 500 acres of soybeans and corn as part of the crop rotation. Laurie also serves on the Town of Saratoga Planning Board, Schuyler Park Committee (Co-chair) and the NY Farm Bureau Labor Committee.

**MICHAEL N. BROOKS**, Elmer, NJ, has served as director since 2014, with his current term expiring in 2022. He is chair of the AgInitiatives Committee and previously served on the Governance Committee. Mike owns Dusty Lane Farms, LLC, in partnership with his parents William and Diane Brooks. Dusty Lane Farms is a diverse 1,400-acre irrigated operation producing white potatoes, peppers, spinach, broccoli, sweet corn, corn and soybeans. The farm also includes 27,000 square feet of heated greenhouse space for vegetable transplants. Mike is a former member of the United States Potato Board. He also serves on the executive committee of the Salem County Board of Agriculture and is the president of the New Jersey White Potato Association. He is past chair of the Woodstown-Pilesgrove Agricultural Education Advisory Committee and is a life-long supporter of the FFA Organization.

**PETER R. CALL**, Batavia, NY, has served as director since 2015, and his current term expires in 2019. He is chair of the Board's Governance committee and member of the Executive and Compensation committees. Peter is President of My-T-Acres, Inc., an 8,500-acre vegetable and grain operation. More than 5,000 of those acres are dedicated to the production of snap beans, potatoes, red beets, carrots, peas, sweet corn, spinach and cabbage. My-T-Acres was named the New York State Agricultural Society's business of the year in 2012. Peter is in business with his brothers, Nate and Phil Call. Peter has an ownership interest in Call Farms, Inc.; My-T Lands, LLC; Call Lands Partnership; Batavia Farm Equipment, which is a center pivot irrigation dealership; and Bear Hammock, a Florida orange grove. Peter is on the Seneca Foods Board of Directors and the Farm Fresh First Board. He is a member of the Genesee Community College Board of Trustees and he serves on the United Memorial Medical Center Board and is a Cornell Council member.

**TIM C. CHAN**, Claremont, NH, has served as an outside director since 2015 and his term expires in 2023. He is a member of the Board's Audit Committee. Tim was the Senior Vice President and Chief Financial Officer of Ocean Spray Cranberries, Inc., North America's leading producer of canned and bottled juices and juice drinks. Prior to Ocean Spray, he served as Vice President of Finance for Campbell Soup Company and Vice President and Corporate Controller of The Pillsbury Company and Chief Financial Officer of ALPO Pet Foods. Tim started his career at Oscar Mayer Foods and General Foods.

**DANIEL J. COREY,** Monticello, Maine, has served as director since 1999, having served on the Farm Credit of Maine Board of Directors prior to its merger with Farm Credit East. His current term expires in 2019. He is a member of Farm Credit East's Executive, Compensation and AgInitiatives committees. Daniel is President/CEO of Daniel J. Corey Farms, Seed Pro Inc., Nu-Seed Corp., Florida Spuds, LLC, Corey Equipment Inc., Corey Timberlands Ltd. and newly, Frederick's Transport Inc., producing more than 1,100 acres of early generation seed potatoes, 1,400 acres of oats, 500 acres of wheat, 200 acres of fresh market potatoes, 200 acres of broccoli, 300 acres of hay and 75,000 Christmas trees. Seed Pro Inc. also operates an in-vitro lab facility and three greenhouses. Nu-Seed Corp. exports potatoes internationally, is a licensed potato brokerage and operates a 250,000bu grain elevator with rail access. Florida Spuds, LLC produces more than 200 acres of fresh market potatoes and over 200 acres of broccoli in Elkton, FL. Corey Equipment in Monticello, Maine, is a construction and wood processing company. Corey Timberlands Ltd. is a timberland holding company located in New Brunswick, Canada. His newest venture, Frederick's Transport Inc., is a new truck brokerage company that also owns and operates its own fleet.

**DAVID "SKIP" HARDIE**, Lansing, NY, has served as director since 2016 and his term expires in 2020. He serves on the Board's Governance Committee and previously served on the AgInitiatives Committee. Skip is partner of Walnut Ridge Dairy, LLC, along with Steve Palladino, John Fleming and Keith Chapin. The farm milks 1,600 cows and operates 2,000 acres. Skip serves on the American Dairy Association/ Dairy Council's executive committee and Board of Directors. He is also chair of the NYS Milk Promotion Advisory Board, secretary of Dairy Management, Inc., and director and nominating committee chair for the US Dairy Export Council.

**HENRY L. HUNTINGTON**, Loudon, NH, has served as director since 2011 with his current term expiring in 2019. He is a member of the Board's Audit Committee and served as its chair for four years. He previously served as vice chair of the Board. Henry is CEO of Pleasant View Gardens, Inc., a 14-acre wholesale greenhouse operation specializing in young plant propagation and finished annuals and perennials. The company was founded by parents Jonathan and Eleanor, and is currently owned by Henry and his brother Jeffrey. Henry recently founded and is CEO of lēf Farms, a 50,000 sq. ft. greenhouse to grow cut baby greens. Pleasant View Gardens is also partners in Proven Winners, LLC, a plant brand marketing company; Plant 21, LLC, a plant breeding company; and Ticoplant of Costa Rica, an offshore unrooted cutting production company. He is a director of Phoenix Mutual Insurance Company based in Concord, NH; co-chair of the New Hampshire Ornamental Horticulture Endowment; member of the Leadership Advisory Board for the Thompson School and on the Development Board for the College of Life Sciences and Agriculture, University of New Hampshire; past president of Bedding Plants International; and a 24-year member of the Planning Board for the Town of Loudon.

**PHILIP J. JONES**, Shelton, CT, "Jamie" was elected director in 2018 to a term expiring in 2022. He is a member of the Governance Committee. Jamie is owner and manager of Jones Family Farms Winery, LLC, which he founded in 2004. He is in business with his parents Terry and Jean Jones as well as his wife Christiana. Jamie oversees the agricultural production of berries, vegetables, pumpkins and Christmas trees of Jones Family Farms, LLC. He serves as a director of the Fairfield County Farm Bureau, the Connecticut Vineyard and Winery Association, and the Governors Council for Agricultural Development as well as on the Shelton Zoning Board of Appeals.

**LOUANNE F. KING**, of Madrid, NY, was elected to the board in 2017, with her current term expiring in 2021. She serves on the Board's Governance Committee. LouAnne is an owner of Mapleview Dairy LLC, along with her brother, David Fisher, John Kingston, and her two nephews, Jordan and Jacob Fisher. The family-owned 3,000 cow dairy has 2,800 replacement heifers and approximately 4,600 cropped acres. LouAnne serves as office manager and CFO, while providing human resource functions, management support and mentoring the next generation of managers. LouAnne is a member of the NYS Dairy Promotion Advisory Board; Pro-Dairy Advisory Board; the Northeast Agricultural Foundation Board; the St. Lawrence County Cornell Cooperative Extension Farm Profit Team; and is a member of the St. Lawrence Country Dairy Princess Committee.

**JOHN P. KNOPF**, Canandaigua, NY, has served as director since 2013 with his current term expiring in 2021. He is chair of the Board's Audit Committee and also serves on the Compensation and Executive committees. John is principal owner of Fa-Ba Farms, LLC, a dairy business consisting of 500 milking cows, 440 replacements and 850 acres of land devoted to forage production. He is a member of the Town of Canandaigua Board of Assessment Review and has prior service with the Soil and Water Conservation District Northern Watershed and Ontario County Farm Bureau.

**LISA P. SELLEW**, Lebanon, Conn., has served as director since 2013 with her current term expiring in 2021. She is member of the Board's Governance Committee and previously served as the AgInitiatives Committee Chair. The Sellew family owns Prides Corner Farms. Prides Corner is a wholesale nursery that grows more than 2,200 varieties of nursery stock, perennials, roses, trees, herbs and vegetables, and supplies plants to independent garden centers, landscapers and landscape distributors throughout the Northeast and Mid-Atlantic. In addition, Prides Corner also grows and supplies a prevegetated green roof system called LiveRoof®, which is designed to grow plants on rooftop environments. Lisa served on the Agriculture Policy Committee for Connecticut Governor Ned Lamont's transition team.

**DOUGLAS W. SHELMIDINE**, Adams, NY, has served as director since 2012 with his current term expiring in 2020. He is a member of the Board's Audit Committee and previously served as the AgInitiatives Committee Chair. Doug owns Sheland Farms, LLC, which is a multi-generational family farm business run in partnership with his brother Todd and sons Devon and Erik. The family farms 1,800 acres and milks 980 cows. Doug served five two-year terms on the USDA-NRCS Agricultural Air Quality Task Force, has been a member of Pro-Dairy/New York Farm Viability Dairy Advisory Committee, New York Farm Bureau Board of Directors and Jefferson County Farm Bureau President. Doug is the Town of Ellisburg Supervisor, serves on the New York Agriculture Commissioner's Dairy Marketing Advisory Committee, the Jefferson County Agricultural Council and also chairs the Jefferson County Agriculture and Farmland Protection Board.

**DIANE D. SOUZA**, Little Compton, RI, has served as an outside director since 2015 with her current term expiring in 2019. She is a member of the Board's AgInitiatives Committee. Diane has an extensive background in healthcare and finance having served as the CEO of UnitedHealthcare Specialty Benefits, as well as leading cross-segment activities spanning the UnitedHealthcare organization. Prior to UnitedHealthcare, she was CFO of Aetna's Guaranteed Products business, COO of OptumHealth Specialty Benefits and has held leadership positions at Deloitte and PricewaterhouseCoopers. She is also a certified public accountant and serves on the Board of Directors of Sanofi, a global pharmaceutical company headquartered in Paris.

**PETER H. TRIANDAFILLOU**, Old Town, Maine, was appointed to the Farm Credit East Board as its forestry expert in 2016 with his current term expiring in 2022. He currently serves on the Board's Audit Committee. Peter is vice president of woodlands for Huber Resources Corp., a timber management firm managing 680,000 acres in six states. Peter is also past president and current Board member of The Maine Forest Products Council, past chair and current member of the Society of American Foresters (Maine division), past president and current board member of the North Maine Woods Corporation and past chair of the Advisory Committee of the Cooperative Forestry Research Unit. In addition, he is also a member of the Empire State Forest Products Council.

**TERRY R. ZITTEL**, Eden, N.Y., was elected in 2018 to a term expiring in 2022. She serves on the Board's AgInitiatives Committee. Terry is corporate secretary and business manager of Amos Zittel & Sons, Inc., a wholesale vegetable, flower and retail market business growing 300 acres of fresh market vegetables, including sweet corn, peppers, lettuce, cabbage, broccoli, brussel sprouts and squash, and a certified organic crop of mini cukes and hot peppers. They also have three acres of greenhouse growing two million rooted liners and wholesale finished spring pots. Terry is on the Board of Directors of Eden Community Foundation and Harvest Malawi, an irrigation/education project in Africa.

## DIRECTOR COMPENSATION

For 2018, directors were compensated at a per diem rate of $800 for each day or any part thereof served, $800 for each day traveled before and after the meeting, $800 for board meeting preparation time, $800, approved in advance, for special assignments and a per diem rate of $800 for each day or any part thereof served on a Board committee not held in conjunction with a Board meeting. Directors also received an annual retainer of $13,500 ($20,250 and $15,525 respectively for Board Chair and Vice Chair) plus reimbursement of related travel expenses. Directors may elect to waive all or half of their per diem. In addition, Directors who are asked to serve on other boards are compensated for the difference in per diems. Directors may elect to defer payment of all or part of their director compensation through a nonqualified deferred compensation plan. Total compensation paid to the directors as a group during 2018 was $688,823. Additional information for each director who served during 2018 is provided below.

The following table presents the number of days served at Board meetings and other official Farm Credit East activities, and compensation paid to each director for the year ended December 31, 2018.

| | | Number of Days Served[1] | | | |
|---|---|---|---|---|---|
| Name of Director | 2018 Board Committee | Board Meetings | Other Official Duties | Committee Compensation[2] | Total Compensation |
| Matthew W. Beaton | Compensation, Executive | 13 | 30 | $ 800 | $ 57,450 |
| Peter J. Barton[4] | AgInitiatives | 3 | 2 | 0 | 5,200 |
| Michael N. Brooks | AgInitiatives | 13 | 14 | 0 | 40,300 |
| Peter R. Call | Compensation, Executive, Governance | 12 | 18 | 800 | 41,100 |
| Tim C. Chan | Audit | 13 | 18 | 400 | 43,100 |
| Daniel J. Corey | AgInitiatives, Compensation, Executive | 11 | 12 | 800 | 34,700 |
| Laurie K. Griffen | Compensation, Executive | 13 | 30 | 1,200 | 53,525 |
| David E. Hardie | Governance | 13 | 22 | 0 | 45,900 |
| Henry L. Huntington | Audit | 13 | 16 | 0 | 41,100 |
| Richard P. Janiga[4,5] | AgInitiatives, Compensation | 3 | 11 | 0 | 6,448 |
| Philip J. Jones[3] | Governance | 10 | 4 | 0 | 28,700 |
| LouAnne F. King | Governance | 13 | 22 | 0 | 46,300 |
| John P. Knopf | Audit, Compensation, Executive | 13 | 25 | 1,200 | 46,300 |
| James A. Robbins II[4] | Governance | 3 | 7 | 0 | 8,400 |
| Lisa P. Sellew | Governance | 13 | 16 | 0 | 40,300 |
| Douglas W. Shelmidine | Audit | 13 | 13 | 400 | 39,100 |
| Diane D. Souza | AgInitiatives | 13 | 14 | 0 | 38,300 |
| Peter H. Triandafillou[5] | Audit | 13 | 14 | 400 | 37,500 |
| Terry R. Zittel[3] | AgInitiatives | 10 | 12 | 0 | 35,100 |
| | | | | Total Compensation | $ 688,823 |

1 The number of days served and per diem totals include travel time to and from meetings
2 All directors serve on board committees. The committee compensation paid was for participation in meetings not held in conjunction with board meeting dates.
3 Term began during year
4 Term ended during year
5 This director represented Farm Credit East's interest by serving on boards of other organizations important to the Association. Days of service related to these activities and any compensation received from that organization (if any) are not included in this report.

Current Farm Credit East policy regarding reimbursements for travel, subsistence, and other related expenses provides for reimbursement of actual reasonable out of pocket expenses incurred while traveling on official Association business. Directors who use their own automobiles for Association business purposes will be reimbursed at a rate that has been established in accordance with IRS guidelines. The aggregate amount of reimbursement for travel, subsistence and other related expenses for all directors as a group was $260,539, $321,501 and $395,305 for 2018, 2017 and 2016, respectively. A copy of the Association travel policy is available to stockholders upon request.

## TRANSACTIONS WITH DIRECTORS

At December 31, 2018, the Association had loans outstanding with directors individually and to the business organizations of directors. All of the loans were in the ordinary course of business and remain on the same terms, including interest rates, amortization schedules, and collateral as those prevailing at the time for comparable transactions with other persons and did not involve more than the normal risk collectability. Information regarding related party transactions is incorporated herein by reference from Note 11 of the consolidated financial statements included in this annual report to stockholders.

# SENIOR OFFICER DISCLOSURES

Listed below are the CEO and senior officers of Farm Credit East, ACA. Information is provided on their experience, as well as on any business for which they serve on the board of directors or act as a senior officer and the primary business that the organization is engaged in.

**WILLIAM J. LIPINSKI** serves as Chief Executive Officer, a position held since Farm Credit East was formed on January 1, 2010. He was previously President and CEO of First Pioneer Farm Credit. He reports to and works closely with the Board of Directors. He sets strategic direction with the Board and directs human resources, credit and services delivery, finance and customer service. He is a graduate of Cornell University with a degree in agricultural economics. He began his Farm Credit career in 1979 and was promoted through a number of positions before becoming CEO. He is a current director and Chair of the Board of Farm Credit Financial Partners, a service company owned by Farm Credit East and other ACAs. He is a member of the Farm Credit System Presidents Planning Committee, a national leadership group. He was a former member of the Board of Directors of Pro-Fac Cooperative, Inc. and also served as director of the Farm Credit Leasing Corporation for a number of years.

**PAUL S. BAJGIER** serves as Senior Vice President and Treasurer. He is responsible for the Association's general ledger and loan accounting systems, operational procedures, tax filings and external reporting. He also works closely with the Board Audit Committee to manage Farm Credit East's relationship with PricewaterhouseCoopers, the Association's independent auditor. He is a CPA and worked for Price Waterhouse for five years before joining Farm Credit in 1992. He is a graduate of Western New England College with a degree in accounting and a member of the Farm Credit System Accounting Standards Work Group.

**WILLIAM S. BATHEL** serves as Executive Vice President and Chief Risk Officer responsible for measuring and monitoring risk in Farm Credit East's loan portfolio. He provides reports to the Board and management to help assure the ACA's financial and operational safety. He administers the ACA's internal review, audit and fraud programs, and oversees the business intelligence and legal teams. He leads the Association's internal technology operations and coordinates technology efforts with Financial Partners Inc. (FPI), sitting on its strategic investment committee. He coordinates matters with our federal examiner, the Farm Credit Administration. He joined the Farm Credit System in 1987 and advanced through several positions. He is a graduate of the University of Nebraska with a degree in accounting. He serves on the Farm Credit East Credit, Asset Liability and Human Resources committees and also works closely with the Board's Audit Committee.

**BRIANA S. BEEBE** serves as Senior Vice President and Human Resources Director. She leads all of Farm Credit East's human resource programs including benefits, recruiting, employee engagement, training, compensation and many other special projects. She joined Farm Credit in 2002 and served as loan officer in the Middleboro branch for seven years before transitioning to her current role in Human Resources. She is Chair of Farm Credit East's Human Resources Committee and serves on the CoBank Welfare Benefits Committee. She is a graduate of Cornell University with a degree in animal science/ag business. She is also a graduate of LEAD New York and Farm Credit's Leadership Development Program.

**GARY R. BRADLEY** serves as Executive Vice President and Regional Manager. He provides senior management oversight and coaching to the Burrville, Claverack, Cooperstown, Greenwich and Potsdam offices in credit, financial services, consulting and customer service. Gary joined Farm Credit in 1977 and progressed through several positions. He serves on the association Credit Committee. He also works closely with the Board's AgInitiatives Committee and is a member of the Farm Credit Fellows Committee at Cornell University. Gary holds a degree from Cornell University in business management and marketing.

**JOHN P. CALTABIANO** serves as Executive Vice President and Regional Manager. He provides senior management oversight and coaching for the Bridgeton, Flemington, Enfield, Middletown and Riverhead offices. In his position, he is responsible for loans and financial services to farmers, commercial fisherman, forest products producers, agribusinesses and rural home owners in Connecticut, Massachusetts, New Jersey and New York. He has the additional responsibility of leading FCE's innovation efforts. John joined Farm Credit in 1983 and progressed through a variety of positions, with Southern New England Farm Credit, the Farm Credit Banks in Springfield, MA and CoBank in Denver, Colorado. He is a member of Farm Credit East's Credit Committee, Technology Oversight Committee and Cyber Team. John is a graduate of LEAD New York, the Empire State Food and Agricultural Leadership Institute, having served as President of its Board. He served on the CoBank, ACB Retirement Trust Committee and is a past Director of the Northeast Agricultural Education Foundation. John holds a BS in Agricultural Economics and Plant Science from Cornell University and an MBA from the Fuqua School of Business at Duke University.

**THOMAS W. COSGROVE** serves as Senior Vice President of Knowledge Exchange, Public Relations, and Marketing. Prior to assuming his current position in 2018, he served as Senior Vice President for Public Affairs and Knowledge Exchange and previous to that role, he was a Vice President in Farm Credit East's Commercial Lending Unit. Prior to joining Farm Credit East, he served in a variety of roles for CoBank in its capital markets, communications and agribusiness divisions. He has also served as a staff member of the United States Senate Committee on Agriculture, Nutrition and Forestry. He is currently the Chair of the Empire State Council of Agricultural Organizations and serves on the board of the Northeast Agricultural Education Foundation. He is a graduate of LEAD New York and holds a BS in Communications from Cornell and an MBA from the University of North Carolina, Chapel Hill.

**ALENA C. GFELLER** serves as Executive Vice President, Corporate Secretary and General Counsel. She is responsible for Farm Credit East's legal department and serves as the Standards of Conduct officer. As head of the legal department, she is charged with providing support on complex and innovative loan issues, ensuring regulatory compliance, supervision of outside counsel, and assisting with all facets of the Association's legal and governance needs. She serves on the Farm Credit East Human Resources committee and works closely with the Board's Governance Committee. She joined Farm Credit East in September 2016, having previously been a partner and member of the Executive Committee at Murtha Cullina, LLP. She is a graduate of Arizona State University and received her law degree from Widener University School of Law.

**ANDREW N. GRANT** serves as Executive Vice President and Chief Financial Officer. He leads the financial, treasury, accounting and asset-liability management operations of the Association. Prior to assuming his current position, he was Chief Financial Officer of Farm Credit of Maine and has held several positions since joining Farm Credit in 1995. He serves on the CoBank, ACB Retirement Trust Committee which oversees the defined benefit and defined contribution retirement plans for the Association and several other Farm Credit employers. He also serves as Chair of Farm Credit East's Asset Liability Committee and is a member of the Association's Human Resources and Information Technology Oversight committees. He is a graduate of Husson University and holds both a BS in management accounting and a MS in business

**BRIAN K. MONCKTON** serves as Executive Vice President and Regional Manager. He provides senior management oversight and coaching to the Batavia, Cortland, Geneva, Hornell and Mayville offices in credit, financial services, consulting and customer service. He joined Farm Credit in 1981 and progressed through several positions with Farm Credit of Bridgeton, Farm Credit of Olean and Farm Credit of Western New York. He is a member of Farm Credit East's Credit Committee. He is a graduate of Cornell with a BS in agricultural economics and a graduate of LEAD New York and a former member of its Board.

**FREDERICK H. MORTON** serves as Executive Vice President and Regional Manager. He provides senior management oversight and coaching to the Dayville, Bedford, Middleboro, Auburn and Presque Isle offices in credit, financial services, consulting and customer service. He joined Farm Credit of Maine in 1979 and progressed through several positions with Farm Credit of Southern Maine and Farm Credit of Maine. He is a member of Farm Credit East's Credit and Risk committees. He is a graduate of the University of Maine with a BS in agricultural and resource economics. He serves on the Board of Agriculture at the University of Maine, and also actively participates in a number of industry organizations that support Maine's natural resource-based businesses.

**ROGER E. MURRAY** serves as Executive Vice President and provides senior management oversight and coaching to Commercial Lending, Country Living and Crop Growers, LLP business units. He has been part of the senior management team since 1995. He provides program leadership for our trade credit partnership with AgDirect, our leasing services through Farm Credit Leasing, and risk management services, including crop and credit life insurance. He serves on Farm Credit East's Credit, Asset Liability, Technology Oversight and Human Resources committees and works closely with the Board's Audit Committee on the allowance for credit loss reserves. As a member of the Farm Credit System Reputation Risk Workgroup and Credit Standards Workgroup Committees, he represents ACA interests on national credit risk issues. He holds a degree from Cornell University in agricultural economics and is a current member of the Cornell Agri-Business Advisory Council. He joined Farm Credit in 1981 and has held several positions with predecessor organizations as well as the Springfield Bank for Cooperatives and CoBank in Springfield, Mass.

**MICHAEL J. REYNOLDS** serves as Executive Vice President and Chief Business Officer where he provides executive leadership for all branch credit and financial services operations. He also serves as Chair of Credit Committee. Previously, he served as Executive Vice President and Regional Manager until his appointment as Chief Business Officer January 1, 2018. He is a Farm Credit veteran having joined in 1990 after graduating from Hartwick College with a Bachelors in Management and Marketing and has been promoted through a variety of positions. He is a member of Farm Credit East's Credit, Human Resources and Financial Services committees. He previously served on the Executive Committee of the NJ Agricultural Society and chaired the NJ Agricultural Leadership Development Program. He serves on the Board of the Farm Credit East Cares Fund.

# SENIOR OFFICERS COMPENSATION DISCUSSION AND ANALYSIS

## OVERVIEW

This section describes the compensation programs for Farm Credit East's Chief Executive Officer (CEO) and other senior officers, as defined by FCA regulations (collectively, senior officers), as well as those programs for any highly compensated employees as defined by FCA regulations. This section also presents the compensation earned by the CEO, as well as aggregate compensation earned by our other senior officers and any highly compensated employees, for the years ended December 31, 2018, 2017 and 2016.

The Board of Directors, through its Compensation Committee, has reviewed and discussed the Senior Officers Compensation Discussion and Analysis with management. Based on this review and discussion the Compensation Committee recommended that the Board of Directors include the Senior Officers Compensation Discussion and Analysis in the Annual Report for the year ended December 31, 2018.

## COMPENSATION PHILOSOPHY AND OBJECTIVES

Farm Credit East's (the Association) compensation strategy is to attract and retain highly talented employees to fulfill our mission as the premier credit and financial services provider in the Northeast. The compensation philosophy seeks to achieve the appropriate balance among market-based salaries, benefits and variable incentive compensation designed to incent and reward both the current and long term achievement of our business objectives and business financial plans. We believe this philosophy fosters a performance-oriented, results-based culture wherein compensation varies on the basis of results achieved.

## COMPONENTS OF COMPENSATION PROGRAM

Given the cooperative ownership structure of Farm Credit East, no equity or stock based plans are used to compensate any employee, including senior officers. Senior officers' compensation consists of four components – salary, short-term incentive plan, long-term incentive plan and retirement benefits – as described below. All employees participate in salary, the short term incentive plan and retirement benefits, while senior officers and specified other key employees are also eligible to participate in the long-term incentive plan. In addition the CEO is eligible for supplemental retirement benefits (SERP).

## SALARY

Salaries are market based, as determined in consultation with an independent executive compensation consultant. The determination of market salaries consists of a comparison of salary levels to positions of similar scope at select peer group financial institutions, coupled with an evaluation of individual performance, competencies and responsibilities. Salaries represent a foundational component of the Association's total compensation program as the amounts of other components of compensation are determined in relation to base salary.

## SHORT-TERM INCENTIVES

Short-term incentive payments are based on a combination of annual Association and individual performance. The plan focuses on achieving near-term, annual results. Under the terms of the plan, the key performance result areas are loan growth, financially related services income growth and operating efficiency/optimization. Substantially all employees in the Association are eligible to participate in this plan at various levels. Criteria used to determine amounts payable were established by the Board of Directors and include the achievement of certain Association financial targets and strategic business objectives. Payments are typically made in February following the end of the year to which the award is applicable.

## LONG-TERM INCENTIVES

The Association has a long-term incentive plan and long term retention plan that provides senior officers and other specified key employees the opportunity for financial rewards tied to Farm Credit East's sustained success. Eligibility for participation is limited to those individuals who clearly have the ability to drive the success of strategies critical to long term value creation for stockholders. The plan payouts are based on Association performance in the achievement of key financial metrics over a three-year performance period. Under the terms of the plan, the key financial metrics are return on assets, operating efficiency and focus on various human resource initiatives. The cash awards are to be paid subsequent to completion of the performance period cycle, subject to approval by the Board of Directors. Participants in the long-term incentive plan and long term retention plan can elect to defer plan payments if the election is made before the start of the year. Participants forfeit those amounts if they resign prior to being paid.

## RETIREMENT BENEFITS

The Association has employer-funded qualified defined benefit pension plans which are noncontributory and cover employees hired prior to January 1, 2007 (except the former Maine employees who all are participants in the noncontributory defined contribution plan). Benefits are determined by a formula based on years of service and eligible compensation. The Association also has a noncontributory, unfunded, nonqualified supplemental executive retirement plan (SERP) covering the CEO only. All employees are also eligible to participate in a 401(k) retirement savings plan, which includes a matching contribution by the Association. Employees hired on or after January 1, 2007 receive additional, non-elective employer contributions to the 401(k) retirement savings plan. All retirement-eligible employees hired before January 1, 2013, including senior officers, are also currently eligible for other postretirement benefits, which primarily include access to health care benefits. Substantially all participants pay the full premiums associated with these other health care benefits.

The Association also has a nonqualified deferred compensation plan that allows senior officers and other specified key employees to defer all or a portion of their long-term incentive compensation. In addition, certain senior officers are able to participate in a nonqualified supplemental savings plan enabling them to receive the full benefit, irrespective of IRS limitations, of the Association's noncontributory defined contribution plan. The compensation that is deferred is invested in any number of investment alternatives selected by the participants. These alternatives are either identical or substantially similar to those available to all participants in the Association's 401(k) plan. The participant is subject to all risks and returns of amounts invested. The election to defer is irrevocable and the deferred amounts cannot be paid except in accordance with specified elections as permitted by law. At that time, the participant will receive payment of the amounts credited to his or her account under the plan in a manner that has been specified by the participant. If a participant dies before the entire amount has been distributed, the undistributed portion will be paid to the participant's beneficiary.

## CEO COMPENSATION

The CEO's compensation is benchmarked to a select peer group of financial institutions. The Board hires an independent executive compensation consultant to help benchmark total compensation. This evaluation helps ensure that such compensation is competitive with positions of similar scope at similar financial institutions. The Board's Executive Compensation Committee reviews the performance of the CEO annually and reviews it with the Board. The Board of Directors annually approves the CEO compensation level.

In addition to the base salary, the CEO can earn both a short-term incentive and a long-term incentive each year based on pre-established performance goals. The short-term incentive potential for 2018 ranged from 0 percent to 65 percent of base salary. The 2018 long-term award was 50 percent of base salary. The short-term and long-term incentives shown in the Summary Compensation Table below reflect the amounts earned and paid during the year. The CEO's compensation in excess of the Internal Revenue Code is made up for via participation in a nonqualified deferred compensation plan. Contributions are made at the same percentages as available under the 401K plan. The nonqualified deferred compensation plan payment is shown in the Summary Compensation Table below.

As of December 31, 2018, the CEO is employed pursuant to an employment contract which runs through December 31, 2019. The employment agreement provides specified compensation and related benefits in the event employment is terminated, except for termination with cause. The significant provisions of the agreement are that the CEO would be entitled to severance benefits of two years base salary plus any incentives earned in the year of termination. The employment agreement may be extended by mutual agreement of the parties.

## SENIOR OFFICER COMPENSATION

The CEO is responsible for setting the compensation levels of the senior officers, who, in turn are responsible for the compensation of all other employees. Annually the Board's Executive Compensation Committee reviews senior officer compensation policies, plans and overall compensation programs.

The Association's short-term incentive compensation plan features annual payments based on calendar year performance periods. The annual short-term incentive targets are set for all employees at the beginning of the year. For the 2018 performance period, the short-term incentive plan levels for senior officers ranged from 10 percent to 30 percent of base salary. Individual performance is also considered in the determination of the amount payable. The short-term incentives shown in the Summary Compensation Table below are paid in February following the end of the year to which the award is applicable. In addition, certain senior officers were awarded bonuses totaling $41,000 in 2018. These additional payments were for performance related to special projects.

The Association's long-term retention plan provides senior officers and other specified key employees the opportunity for financial rewards tied to Farm Credit East's sustained success over a three-year performance period. The three-year performance metrics are established at the beginning of each three-year period by the Board of Directors in connection with the annual business and financial plan. For the 2018 plan performance period, the retention plan incentive reward was up to 24 percent of base salary. The retention incentives shown in the chart below are not funded nor held in trust but contractually obligates the Association to make future payments in specified amounts. The cash awards are to be paid subsequent to completion of the three-year performance period cycle. During 2018, the 2015 through 2017 performance period cash awards were paid to senior officers totaling $395,640. Participants in the long-term retention plan can elect to defer incentive plan payments if the election is made before the start of the plan year.

## SUMMARY COMPENSATION TABLE

Compensation earned by the CEO and aggregate compensation of the senior officers for the years ended December 31, 2018, 2017 and 2016, respectively is disclosed in the accompanying table. The senior officers and highly compensated employees included below are those officers defined by FCA regulations section 619.9310 and Section 620.6. Disclosure of the total compensation during the last fiscal year to any senior officer included in the aggregate is available to stockholders upon request in writing. Current Board policy regarding reimbursements for travel, subsistence, and other related expenses provides that all employees, including senior officers, shall be reimbursed for actual reasonable travel and related expenses incurred while traveling on official Association business. Employees who use their own automobiles for Association business purposes will be reimbursed at a rate that has been established in accordance with IRS guidelines. The Association provides automobiles to exempt employees with credit or Association-wide management responsibilities. Association employees are allowed to use assigned cars for personal use. All miles other than those driven for business purposes, as defined by the IRS, are considered personal miles and are accounted for as a taxable benefit to the employee. A copy of the Association travel policy is available to stockholders upon request.

| Summary Compensation Table | 2018 | 2017 | 2016 |
|---|---|---|---|
| William J. Lipinski, CEO | | | |
| Salary | $ 765,000 | $ 735,000 | $ 700,000 |
| Short-term Incentive | 434,000 | 434,000 | 364,500 |
| Long-term Incentive | 367,500 | 350,000 | 330,000 |
| Change in Pension Value[3] | 421,578 | 498,682 | 2,174,043 |
| Deferred/Perquisites[4] | 90,444 | 87,998 | 79,339 |
| Total | $ 2,078,522 | $ 2,105,680 | $ 3,647,882 |
| Senior Officers (excluding CEO)[1] | | | |
| Salary | $ 2,522,067 | $ 3,157,883 | $ 2,925,487 |
| Short-term Incentive | 474,500 | 400,850 | 350,319 |
| Retention Incentive[2] | 517,144 | 520,386 | 457,825 |
| Change in Pension Value[3] | 608,199 | 1,327,772 | 1,341,450 |
| Deferred/Perquisites[4] | 315,844 | 397,918 | 364,865 |
| Total | $ 4,437,754 | $ 5,804,809 | $ 5,439,946 |

[1] The number of senior officers in 2018 reflected in this chart was twelve; the number of senior officers in 2017 and 2016 reflected in this chart was fourteen.

[2] The retention incentive reflects the amount awarded to these senior officers. The amounts are held as a general obligation of the Association and are subject to forfeiture.

[3] Change in pension value represents the change in the vested portion of the present value of the accumulated benefit obligation from the prior fiscal year to the current fiscal year. The change in pension value is generally due to annual changes in compensation, years of service, age and actuarial assumptions such as the discount rate. In 2016 the CEO reached full retirement age with no reduction in pension benefits.

[4] Represents company contributions to a 401(k) retirement savings plan and nonqualified deferred compensation plan, as well as payment of relocation expenses and associated tax impact; the taxable benefit of a company automobile for personal use, as determined by IRS regulations, wellness benefits and company paid life insurance benefits.

## PENSION BENEFITS

The table below shows the present value of accumulated benefits payable as of December 31, 2018 to the CEO and aggregate for the senior officers by plan, including the number of years of credited service. The change in composition of the aggregate senior officers can have a significant impact on the calculation of the accumulated pension benefits.

| Pension Benefits Table - 2018 | Number of Years of Credited Service[2] | Present Value of Accumulated Benefits | Payments During Last Fiscal Year |
|---|---|---|---|
| **William J. Lipinski, CEO** | | | |
| CoBank, ACB Retirement Plan | 38.17 | $ 2,670,186 | $ 0 |
| Supplemental Executive Retirement Plan | 38.17 | 5,861,897 | 0 |
| Total | | $ 8,532,083 | $ 0 |
| **Senior Officers (excluding CEO)[1]** | | | |
| CoBank, ACB Retirement Plan | 31.29 | $ 9,746,296 | $ 0 |
| Total | | $ 9,746,296 | $ 0 |

[1] The number of senior officers at December 31, 2018 and reflected in this chart was eight

[2] Represents an average for the aggregate senior officer group reflected in this chart

The CEO and senior officers hired prior to January 1, 2007 participate in the CoBank, ACB Retirement Plans (except the former Maine employees who are participants in the noncontributory defined contribution plan only). One plan provides a monthly retirement benefit at Normal Retirement Age equal to 1.65 percent of the 4-year highest average pay multiplied by benefit service up to 35 years plus 1.00 percent of 4-year highest average pay multiplied by benefit service in excess of 35 years. Average annual pay includes pay that is subject to withholding of Federal taxes plus any amounts contributed under Section 401 (k). Another plan provides a monthly retirement at Normal Retirement Age equal to 1.5 percent of 60-month highest average pay, plus 0.25 percent of 60-month highest average pay in excess of Social Security Compensation multiplied by benefit service. Average annual pay includes base salary and non-deferred, short-term incentive annual bonus. The CEO also participates in the CoBank, ACB Farm Credit East Supplemental Executive Retirement Plan to provide benefits to a participant whose benefits in the Retirement Plan are subject to limitations under the Internal Revenue Code.

Each plan provides for early retirement as early as age 55 and 5 years of service but with reductions in the Normal Retirement Benefit. One plan reductions are equal to 3 percent per year between age 60 and the senior officer's Normal Retirement Age and 5 percent per year between age 55 and age 60. Another plan's reductions are equal to 3 percent per year between the age at retirement and the senior officer's Normal Retirement Age. Each plan pays benefits in the form of a 5-year certain and life annuity. Optional forms of annuity payment are available on an actuarially equivalent basis. The calculations assume that a lump sum is elected by each participant for each plan.

The present value of the accumulated benefits is based on assumptions and valuation dates that are the same as those used for the valuation of pension liabilities in the 2018 annual report. The present value of the accumulated benefits is calculated assuming retirement had occurred at the measurement date used for financial reporting purposes. The discount rate used is 4.45 percent as of December 31, 2018. The lump sum basis used for the valuation is 6.00 percent with the 2019 417(e) mortality table. The potential impact of 415 limits is reflected.

## TRANSACTIONS WITH SENIOR OFFICERS

At December 31, 2018, there were no loans outstanding to a senior officer and there were loans outstanding to an immediate family member of three senior officers. All of the loans approved were in the ordinary course of business and remain on the same terms, including interest rates, amortization schedules, and collateral as those prevailing at the time for comparable transactions with other persons and did not involve more than the normal risk of collectibility. Information regarding related party transactions is incorporated herein by reference from Note 11 of the consolidated financial statements included in this annual report to stockholders.

## CODE OF ETHICS

The Association sets high standards for honesty, ethics, integrity, impartiality and conduct. Each year, every employee certifies compliance with the Association's Employee Standard of Conduct Policy which establishes the ethical standards of the Association. Additionally, all employees certify compliance with the Code of Ethics. The Code of Ethics supplements the Employee Standard of Conduct Policy and establishes additional responsibilities related to the preparation and distribution of the Association's financial statements and related disclosures. For details about the Association's Code of Ethics, visit Farmcrediteast.com. A copy of the Association's Code of Ethics is available to stockholders upon request.

# DISCLOSURE INFORMATION REQUIRED BY REGULATIONS

In accordance with Farm Credit Administration regulations, Farm Credit East, ACA (the Association) has prepared this Annual Report to Stockholders for the year ended December 31, 2018 in accordance with all applicable statutory or regulatory requirements.

### DESCRIPTION OF BUSINESS

General information regarding the business is incorporated herein by reference to Note 1 of the financial statements included in this annual report to stockholders.

The description of significant developments, if any, required to be disclosed in this section is incorporated herein by reference to "Management's Discussion and Analysis of Financial Position and Results of Operations" included in this annual report to stockholders.

### DESCRIPTION OF PROPERTY

Farm Credit East, ACA is headquartered in Enfield, CT. A listing of Association offices are on the inside back cover of this annual report. All office locations listed are owned by Farm Credit East.

### LEGAL PROCEEDINGS AND ENFORCEMENT ACTIONS

Information regarding legal proceedings is incorporated herein by reference to Note 13 of the consolidated financial statements included in this annual report to stockholders. The Association was not subject to any enforcement actions at December 31, 2018.

### DESCRIPTION OF CAPITAL STRUCTURE

Information required to be disclosed in this section is incorporated herein by reference to Note 7 of the consolidated financial statements included in this annual report to stockholders.

### DESCRIPTION OF LIABILITIES

Information required to be disclosed in this section is incorporated herein by reference to Notes 6, 9, 10, 13, 14 and 15 of the consolidated financial statements included in this annual report to stockholders.

### SELECTED FINANCIAL DATA

"Five Year Summary of Selected Financial Data" included in this annual report to stockholders, is incorporated herein by reference.

### MANAGEMENT'S DISCUSSION AND ANALYSIS

"Management's Discussion and Analysis" included in this annual report to stockholders, is incorporated herein by reference.

### FINANCIAL STATEMENTS

The "Report of Management", "Report of Audit Committee", "Management's Report on Internal Control over Financial Reporting", "Report of Independent Auditors", "Consolidated Financial Statements", and "Notes to Consolidated Financial Statements" included in this annual report to stockholders, is incorporated herein by reference.

### DIRECTORS AND SENIOR OFFICERS

"Director Disclosures" and "Senior Officer Disclosures" included in this annual report to stockholders, is incorporated herein by reference.

### RELATIONSHIP WITH INDEPENDENT AUDITORS

There were no changes in independent auditors since the prior annual report to stock holders and there has been no material disagreement with our independent auditors on any matter of accounting principles or financial statement disclosure during this period.

### CREDIT AND SERVICES TO YOUNG, BEGINNING, SMALL AND VETERAN FARMERS AND RANCHERS

"Young, Beginning, Small and Veteran (YBSV) Farmers and Ranchers Program" included in this annual report to stockholders, is incorporated herein by reference.

### INVOLVEMENT IN CERTAIN LEGAL PROCEEDINGS

There were no matters that came to the attention of the Board of Directors or management regarding involvement of current directors or senior officers in specified legal proceedings that require to be disclosed.

### UNINCORPORATED BUSINESS ENTITIES

Information required to be disclosed in this section is incorporated herein by reference to Note 11 of the consolidated financial statements included in this annual report to stockholders.

### COBANK, ACB ANNUAL REPORT AND QUARTERLY REPORTS

As an Association Stockholder, your equity investment in the Association is materially affected by the financial condition and results of operations of the CoBank, ACB (CoBank).

Regulations require that CoBank's Annual and Quarterly Reports be made available to you upon request at no charge. Accordingly, you may pick-up a copy of CoBank's Annual and Quarterly Reports at one of our offices, or you may call the office to have a copy sent to you. A listing of the Association offices and telephone numbers are listed on the inside back cover of this annual report.

**CUSTOMER PRIVACY**

Customer financial privacy and the security of your other non-public information are important to us. Farm Credit East holds your financial and other non-public information in strictest confidence. Federal regulations allow disclosure of such information by us only in certain situations. Examples of these situations include law enforcement or legal proceedings or when such information is requested by a Farm Credit System institution with which you do business. In addition, as required by Federal laws targeting terrorism funding and money laundering activities, we collect information and take actions necessary to verify your identity.

# YOUNG, BEGINNING, SMALL AND VETERAN (YBSV) FARMERS AND RANCHERS PROGRAM

## OVERVIEW

Farm Credit East, ACA (the Association) takes great pride that its founding Board of Directors (Board) made young, beginning and small farmers a special focus since its founding in 1994. The Board maintains a standing committee of directors to oversee young, beginning, small, and Gulf War-era II veteran farmer programs and initiatives, as well as to plan further to serve these groups.

## MISSION

The Association's Board recognizes that the long range strength and soundness of the future of Farm Credit East and of the agricultural community in the area it serves depends on the individuals entering the industry. It further recognizes that demands for capital and farm and financial management skills make it exceedingly difficult to become established in the business. Therefore, we believe that it is in the Association's best interest to assist young, beginning, small and veteran farmers by providing loans and credit related services, and help to provide and encourage their participation in activities that improve farm and financial management skills.

## PROGRAM DEFINITIONS

The definitions of young, beginning, small and veteran farmers and ranchers is as follow:

- Young - A farmer, rancher, producer or harvester of aquatic products who is 35 years or younger as of the loan transaction date.
- Beginning - A farmer, rancher, producer or harvester of aquatic products who has 10 years or less farming experience as of the loan transaction date.
- Small Farmer - A farmer, rancher, producer or harvester of aquatic products who normally generates less than $250,000 in annual gross sales of agricultural or aquatic products.
- Veteran - Gulf War-era II veterans having served in US Forces anywhere in the world at any time since September 2001.

## OBJECTIVES

Young, beginning, small and veteran farmers are a vital part of agriculture and Farm Credit East is proud to provide innovative products and services that contribute to their success. In 1995, the Board created a committee to develop and then oversee a program to assist young, beginning and small farmers, regarding this as one of the core values of the Farm Credit East association. The Board was proud to expand their outreach to Gulf War-era II veterans in 2013 and FFA in 2015.

## SERVICES PROVIDED

There are several credit and other related services offered through the Board approved YBSV Program that allows Farm Credit East to effectively serve the needs within the young, beginning, small and veteran customer segments:

- Special incentives that may be offered at a discount for a period of up to five years include:
  - o Farm accounting and management software fees
  - o Tax preparation fees
  - o Consulting fees
  - o Appraisal fees
  - o FSA guaranteed loan fees
  - o Interest rate assistance

Farm Credit East's special incentives were $381,919, $491,119, and $474,643 for the years ended December 31, 2018, 2017, and 2016 respectively.

- Since 2006, incentives are offered to organizations, schools, and universities for special training and educational programs utilizing the Farm Credit East developed Harvesting a Profit guide.
- Farm Credit East provides support, funding, and staff involvement in Dairy Fellows, Farm Credit Fellows, Ag Ambassadors, North East Dairy Challenge, and other programs at educational institutions.
- Representation by YBS farmers on Farm Credit East's Customer Service Councils. These councils provide customer feedback and function as a liaison to association management.
- A portion of the young, beginning and small loan portfolio is supported by government guarantees, including guarantees by the Farm Services Agency (FSA) and USDA's Business and Industry guaranteed loan program. Provided below are statistics related to government guarantees usage among the YBS portfolio.

| | Government Guaranteed Young, Beginning and Small Farmer Loans | | New Government Guaranteed YBS Loans (Originated in 2018) | |
|---|---|---|---|---|
| | Number | Volume * | Number | Volume * |
| Young | 295 | $ 58,717 | 52 | $ 15,043 |
| Beginning | 309 | $ 61,752 | 47 | $ 12,772 |
| Small | 360 | $ 40,838 | 45 | $ 5,482 |

** in thousands*

- Farm Credit East works closely with the New York State Link Deposit Program which reduces the effective interest rate paid on loans for qualifying projects.
- Farm Credit East's Scholarship program awards scholarships to 32 students with an emphasis towards those students with "ag" backgrounds and pursuing interests related to agriculture.
- The Association works with the Northeast Cooperative Council (NECC) to develop and host young cooperators programs along with sponsoring attendance by customers.
- Farm Credit East provides a series of annual seminars that focus on developing skill sets of YBS farmers.
- Receiving regulatory authority in late 2005, Farm Credit East secured a partner (CoBank, ACB) and chartered FarmStart, LLP (FarmStart). At December 31, 2018, Farm Credit East has an equity investment in FarmStart of $2.1 million. FarmStart assists beginning farmers and new cooperatives by providing investments in working capital of up to $75,000. At December 31, 2018, FarmStart has 281 investments with an outstanding balance of $3.9 million.

## DEMOGRAPHICS

The local service area of Farm Credit East, ACA includes the states of New Jersey, Rhode Island, Connecticut, Maine, Massachusetts, and parts of the states of New York and New Hampshire. Demographic data for Young, Beginning, and Small farmers was taken from the USDA's 2012 Census of Agriculture. The census is conducted every five years. It showed the following:

**Percentage Levels in Farm Credit East Lending Territory Expressed as a % of Total Farms**

| Young | Beginning | Small |
|---|---|---|
| 11.8% | 28.6% | 90.1% |

Farm Credit East has annually undertaken a study of the young, beginning, small farmer segment. This study makes a determination of Association penetration of young, beginning and small farmers utilizing information reported in the 2012 Census of Agriculture to better ascertain Farm Credit East's penetration of these farmer segments. The following table shows Farm Credit East's penetration in each market segment:

**Penetration Levels in Farm Credit East Lending Territory December 31, 2018**

| Young | Beginning | Small |
|---|---|---|
| 21% | 29% | 41% |

Farm Credit East penetration is determined based on the number of loans to a specified group as a percentage of total loans.

## YOUNG, BEGINNING AND SMALL FARMER VOLUME IN FARM CREDIT EAST'S LOAN PORTFOLIO

The following table outlines the percentage of young and beginning farmer and rancher loans in the loan portfolio (by number and volume) as of December 31, 2018 compared to total number of loans in the portfolio:

| Category | Number of Loans | % of Total Loans | Volume Outstanding * | % of Total Volume |
|---|---|---|---|---|
| Total Loans and Commitments | 19,333 | 100% | $ 8,599,205 | 100% |
| Young Farmers and Ranchers | 4,250 | 22% | $ 1,190,072 | 14% |
| Beginning Farmers and Ranchers | 5,975 | 31% | $ 1,506,628 | 18% |

** in thousands*

The following table provides a breakdown of small farmer and rancher loans by size as of year-end 2018:

| Number / Volume Outstanding | $0 - $50,000 | $50,000 - $100,000 | $100,000 - $250,000 | >$250,000 |
|---|---|---|---|---|
| Total # of Loans and Commitments | 4,771 | 3,854 | 5,155 | 5,553 |
| Total # of Loans to Small Farmers / Ranchers | 2,645 | 2,154 | 2,424 | 1,203 |
| # of Small Loans as a % of Total # of Loans | 55% | 56% | 47% | 22% |
| Total Loans and Commitments Outstanding* | $ 129,448 | $ 299,541 | $ 856,549 | $ 7,313,667 |
| Total Volume and Commitments to Small Farmers / Ranchers * | $ 75,056 | $ 165,041 | $ 389,393 | $ 580,017 |
| Loan Volume to Small Farmers / Ranchers as a % of Total Loan Volume | 58% | 55% | 45% | 8% |

** in thousands*

## GOALS AND RESULTS

As part of Farm Credit East's planning process, annual quantitative and qualitative goals are established.

The table below outlines the Association quantifiable goals under YBS loan commitments for 2018 and compares actual results to those goals:

| | Young | Beginning | Small |
|---|---|---|---|
| **12/31/2018 GOAL** | **3,950** | **5,450** | **8,000** |
| 12/31/2018 ACTUAL | 4,053 | 5,652 | 8,072 |
| 2018 as a % of GOAL | 103% | 104% | 101% |

The numbers listed above do not include any investments made under FarmStart, LLP.

Farm Credit East has established the following quantifiable and quantitative goals under YBS loan commitments for 2019 and forward:

| | Young | Beginning | Small |
|---|---|---|---|
| 12/31/2019 | 4,100 | 5,750 | 8,200 |
| 12/31/2020 | 4,200 | 5,850 | 8,350 |
| 12/31/2021 | 4,300 | 5,950 | 8,400 |
| 12/31/2022 | 4,400 | 6,050 | 8,550 |
| 12/31/2023 | 4,500 | 6,200 | 8,700 |

Farm Credit East YBSV 2019 qualitative goals address credit, collaboration, financial services and educational assistance, to include:

- Continue incentive programs including interest rate reductions, payment of FSA guarantee fees and fee reductions on financial services in order to facilitate the entry of new farmers while deepening their financial management skills and to make Farm Credit their service provider of choice.
- Provide scholarships for students pursuing a career in agriculture and FFA SAE projects and continuing the *Farm Credit East Agricultural Leadership and Excellence Program* supporting agricultural leadership and excellence.
- Provide scholarships and program support for STEM program instructors in schools within the LSA and also partner with CASE on curriculum development.
- Support funding, staff involvement and direct training resources for university programs and organizations.
- Allow for “licensing arrangements” with organizations such as Cornell’s Small Farmer Program and also its Beginning Farmer Program for use of Farm Credit East’s *Harvesting a Profit* program focused on developing beginning farmers’ skills.
- Actively support federal and state programs and related efforts when their objectives and execution are aligned with the Farm Credit mission. Several programs subsidize interest costs to YBSV borrowers or offer grant funding.
- Local grass roots involvement by branch staff in organizations such as FFA, 4-H, Young Farmers Associations, New York Agri-women, etc. Seek additional representation by YBSV farmers on Association Customer Service Councils.
- Work closely with veterans groups within the LSA and sponsor activities such as the NYS Veterans in Agriculture Conference.
- Advertisements geared to YBSV farmers and participating in publications such as: *Small Farm Quarterly, Dairy Business East, County Folks*, etc.
- Farm Credit East will continue to actively participate in the Farm Credit Northeast AgEnhancement Program, whose purpose is to accept and approve, as appropriate, applications for funding for projects that educate both agricultural groups and the non-agricultural public on Northeast agriculture. Funding is also targeted at young, beginning and small farm interests such as regional conferences and new technologies that may enhance the viability of Northeast agriculture or provide new opportunities for start-up agricultural businesses.

# CUSTOMER SERVICE COUNCIL MEMBERS

The Farm Credit East Board of Directors has established a system of Customer Service Councils (CSC) for each of the 20 branch offices. These are composed of a cross section of stockholders and other members of the agricultural community who meet three times annually with their local Branch Office Manager to provide feedback and input on a variety of topics. This is in keeping with Farm Credit East's strategic vision of retaining a strong grass roots network and having strong, highly empowered branch offices.

The track record of the CSCs has been very positive as Farm Credit East Branch Office Managers have received invaluable feedback on a wide variety of topics. The Board and Management sincerely appreciate the contribution of the CSC members listed below and look forward to building on this Farm Credit East tradition in 2019.

**AUBURN, ME**
Arthur W. Batson III, John Lucas Tree Expert Co., Portland, ME
Libby P. Bleakney, Highland Farms, Inc., Cornish, ME
Benjamin D. Carlisle, Prentiss & Carlisle Company, Inc., Bangor, ME
Peter Carrier, Carrier Chipping, Inc., Skowhegan, ME
James V. Crane, Crane Bros. Inc., Exeter, ME
Travis Fogler, Stonyvale Farms, Exeter, ME
Robert E. Linkletter, Linkletter & Sons, Inc., Athens, ME
Jacob E. Pierson, Pierson Nurseries, Inc., Biddeford, ME
Todd R. Sawyer, TRS Timber Maintenance, Inc., Waterford, ME
Kimberly M. Wright, Misty Meadows Far, LLC, Clinton, ME

**BATAVIA, NY**
James Anderson, Anderson Farm, Avon, NY
Robert R. Brown III, Orchard Dale Fruit Company LLC, Waterport, NY
Tom Jeffres, R.L. Jeffres & Sons, Inc., Wyoming, NY
Brett D. Kreher, Kreher's Poultry Farms, P/S, Clarence, NY
Matthew Lamb, Lamb Farms, Inc., Oakfield, NY
Bradley A. Macauley, Merrimac Farms, Inc., Geneseo, NY
Andrew Milleville, AM Farms LLC, Lockport, NY
Jody Neal, Orleans Poverty Hill Farm, LLC, Albion, NY
Jeffrey Barry Oakes, Lynoaken Fruit Farm Inc., Lyndonville, NY
Jason E. Schwab, Schwab Dairy Farm, Delevan, NY
Jason E. Swede, Swede Farms, LLC, Piffard, NY
Douglas Walker, Walker Farms, Wayland, NY
Sue Weber, Mike Weber's Greenhouses, Inc., West Seneca, NY
Jason Woodworth, Lamont Fruit Farms, Medina, NY

**BEDFORD, NH**
Nick Brunet, Green Crow Corporation, Auburn, NH
Kathleen Donald, Stout Oak Farm, Brentwood, NH
Steven A. Gaklis, Nursery Direct, Boston, MA
Joseph E. Golter, Golter Lobster Fisheries, LLC, Greenland, NH
Robert A. Johnson, II, Johnson Bros. Farm, Pittsfield, NH
Jamie Robertson, Bohanan Farm, Contoocook, NH
H. Michael Smolak, Smolak Farms, LLC, North Andover, MA
Stewart R. Yeaton, Yeaton Dairy Farm, LLC, Epsom, NH

**BRIDGETON, NJ**
James Brown, New Moon Nursery, LLC, Bridgeton, NJ
John Coombs, Jr., Coombs Sod Farm, LLC, Elmer, NJ
Byron Dubois, Spring Brook Farms, LLC, Pittsgrove, NJ
Ed Overdevest, Overdevest Nurseries, Inc., Bridgeton, NJ
Tom Sheppard, Sheppard Farms, Inc., Cedarville, NJ
Donald C. Strang, Farm-Rite, Inc., Elmer, NJ
Frank Tedesco, Safeway Freezer Storage Company, LLC, Vineland, NJ

**BURRVILLE, NY**
Eric B. Behling, Behling Orchards, LLC, Mexico, NY
Jonathan Beller, Beller Farms, LLC, Carthage, NY
Kristina Burger, Deer Run Dairy, Adams, NY
David Fralick, The Cape Winery, Cape Vincent, NY
Lynn Murray, Murcrest Farms, LLC, Copenhagen, NY
Ronald Robbins, Robbins Family Grain Co., LLC & North Harbor Dairy, LLC, Sackets Harbor, NY
David Rudd, Heritage Hill Farm, Lacona, NY

**CLAVERACK, NY**
Peter Barton, Barton Entertainment, Poughquag, NY
David W. Becker, Becker's Farm, Rensselaer, NY
Ulderic Boisvert, H.U.R.B. Landscaping, Inc., Albany, NY
Ben Freund, Freund's Farm, Inc., East Canaan, CT
Robert C. Graves, Faddegon's Nursery, Inc., Schenectady, NY
Christine Jones, APEX Farms, Catskill, NY
Michael Lischin, Dutchess View Farm, Pine Plains, NY
Jacob Samascott, Samascott Orchards, Kinderhook, NY
Eric Sheffer, Sheffer's Grassland Dairy, LLC, Hoosick Falls, NY
Philip J. Trowbridge, Trowbridge Farms, Ghent, NY
Lloyd Vaill, Jr., Lo-Nan Farm, LLC, Pine Plains, NY
Dale-Illa Riggs, The Berry Patch, Stephentown, NY

**COOPERSTOWN, NY**
John Balbian, Harmony Farm NY, LLC, Amsterdam, NY
Johannes Barendse, River Road Farm & Greenhouses, LLC, Marcy, NY
David Curtin, Curtin Dairy, LP, Cassville, NY
James Frazee, Cazenovia Equipment Company, Inc., Cazenovia, NY
Christopher Fredericks, Insight Dairy, Little Falls, NY
Lukas George, George's Farm Products, Inc., Clinton, NY
Ryan Kelly, Glenvue Farms, LLC, Fultonville, NY
Jenny Mills, Monanfran Farms, Inc., Canastota, NY
Corey Mosher, Mosher Farms LLC, Bouckville, NY
David W. Rivkowich, Veit Farms, LLC, Fort Plain, NY
Charles N. Tommell, Jr., CN Tommell Cattle Company, LLC, Berne, NY

**CORTLAND, NY**
Dennis Birdsall, Homer, NY
Paul Fouts, Fouts Farm, Cortland, NY
John Gates, Seneca Valley Dairy, Burdett, NY
Lee Hudson, Hudson Egg Farms, Camillus, NY
Edie McMahon, McMahon's EZ Acres, Homer, NY
Joel Riehlman, Venture Farms, Tully, NY
George Schaefer, Schaefer's Gardens, Chenago Forks, NY
Judi Whittaker, Whittaker Farms, Whitney Point, NY

**DAYVILLE, CT**
John Bennett, John Bennett Stables, Putnam, CT
Allyn Brown, III, Maple Lane Farms, LLC, Preston, CT
Robin Chesmer, Graywall Farms, Lebanon, CT
Douglas B. Cook, Cook Forest Products, Upton, MA
Jan Eckhart, Sweet Berry Farm, Middletown, RI
John Eidson, Sodco, Inc, Wakefield, RI
Samuel Hull, N.E. Timberland Investments, Union, CT
James Koebke, Walnut Lane Farm, Dudley, MA
Anthony R. Moschini, Royal Crest Farm, Spencer, MA
John Nunes, Jr., Newport Vineyards, Middletown, RI
Ellen Puccetti, Wright's Dairy Farm, North Smithfield, RI
Linda Rich, We-Li-Kit Farm, Abington, CT
Clark Woodmansee, Woodmansee Farm, Preston, CT

**ENFIELD, CT**
Steve Basile, Basile's Clear Brook Farm, Incorporated, Granby, CT
John Casertano, N. Casertano Greenhouses and Farms, Inc., Cheshire, CT
Edward Kasheta, Kasheta Farms, South Windsor, CT
Roland "Skip" LeClerc, LeClerc & Sons Logging, Belchertown, MA
Kurt Lindeland, Connecticut Mulch Distributors, Inc., West Suffield, CT
Charles Newman, Planters' Choice Nursery LLC, Newtown, CT
Don Patterson, Patterson Farms, Sunderland, MA
Karen Randall, Randall's Farm, Inc., Ludlow, MA
Bill Van Wilgen, Van Wilgen's Garden Center, North Branford, CT

**FLEMINGTON, NJ**
Kurt Alstede, Alstede Farms LLC, Chester, NJ
Lisa Applegate, Battleview Orchards, Freehold, NJ
Stephen Barlow III, Barlow Flower Farm, Sea Girt, NJ
Scott Daum, Four Seasons Nursery and Landscape Co., LLC, Englishtown, NJ
Steve Gambino, Villa Milagro Vineyards, Phillipsburg, NJ
Pete Hionis, Hionis Greenhouses, Inc., Green Brook, NJ
Steve Jany, Rustin Farms, West Windsor, NJ
Rick Klevze, Growmark, Ringoes, NJ
Michael Puglisi, Puglisi Egg Farms, Howell, NJ
Stanley Skeba, Skeba Farms, Inc., Monroe, NJ

**GENEVA, NY**
Barb Bauman, Webster, NY
Alison DeMarree, DeMarree Fruit Farms, LLC, Williamson, NY
Matthew Doyle, Doyle Vineyard Management, LLC, Hammondsport, NY
Todd DuMond, DuMond Ag, Auburn, NY
John Mueller, Willow Bend Farms, LLC, Clifton Springs, NY
Bob Norris, Tree Crisp Orchards, LLC, Savannah, NY
Erica Paolicelli, Three Brothers Winery, Geneva, NY
Steven Patt, VisionQuest Dairy, LLC, Lansing, NY
Adam Peters, Peters LakeAire Orchards, LLC, Williamson, NY
Matthew Young, Will-O-Crest, Clifton Springs, NY

**GREENWICH, NY**
Amy Walker Bailey, Walker Farms, LLC, Fort Ann, NY
Nathan Darrow, Saratoga Apple, Inc., Schuylerville, NY
Charlie Hanehan, Hanehan Family Dairy, LLC, Saratoga Springs, NY
David Horn, DMV, Greenwich, NY
Ian C. Murray, Brookside Farms, Inc., Ballston Spa, NY
Shane Nolan, Kenyon Hill Farm, Cambridge, NY
Willard (Bill) Peck, Welcome Stock Farm, Bacon Hill, NY
Sean P. Quinn, Kernel Acres Sunset View Farm, LLC, Easton, NY

**HORNELL, NY**
Jonathan Burns, Burns Family Farm, LLC, Hornell, NY
Clinton M. Crooker, Crooker Crest Dairy, Addison, NY
Frederick R. Frank, Konstantin D. Frank & SonsVinifera Wine Cellars, Inc., Hammondsport, NY
Darlene Krisher-Meehan, Country Crossroads Feed and Seed, Andover, NY
Andrew W. Merry, Lismore Dairy, LLC, Arkport, NY
Daniel Schumacher, Schum-Acres & Associates, Inc., Naples, NY
David Votypka, Votypka Farms/Springwater Ag Products, Wayland, NY
John R. Wallace, Avoca, NY

**MAYVILLE, NY**
Donald "Ed" Barger, Jr., Westfield, NY
Nathan Blesy, Blesy Farms, LLC, Springville, NY
Tara Cotter, Oak View Dairy, LLC, Jamestown, NY
Stephen J. Falcone, Falcone Farms, Inc., Silver Creek, NY
Kevin T. Powell, Powell Vineyards, LLC, Portland, NY
Martin Rosiek, Farmthisway, Brant, NY
Samuel Sheehy, Winery of Ellicottville, North Collins, NY
Jody Waterman, Kevin and Jody Waterman, Forestville, NY

**MIDDLEBORO, MA**
Dawn M. Allen, Freetown Farm, LLC, Freetown, MA
John Bartlett, Bartlett's Ocean View Farm, Inc., Nantucket, MA
Marjorie Beaton-Kane, Bayside Agricultural, Inc., Wareham, MA
John Hornstra, Hornstra Farm Dairy, Inc., Norwell, MA
Fred Jenkins, J. A. Jenkins & Son Cranberry, LLC, Marstons Mills, MA
Kevin McLaughlin, Fairhaven Shipyard Companies, Inc., Fairhaven, MA

Matthew Piscitelli, Olson Greenhouses, Inc., Raynham, MA
John F. Risso, Valinor Farm, LLC, Plymouth, MA
William B. Stearns IV, Plymouth, MA

**MIDDLETOWN, NY**
Wisner Buckbee, Jr., Wisner Farms, Inc., Warwick, NY
Richard H. Byma, By-Acre Holsteins, LLC, Sussex, NJ
Steven Clarke, Sunshine Orchards, Milton, NY
Harley Davis, Kerhonkson, NY
J. Gregory DeBuck, DeBuck Sod Farm of New York, Westtown, NY
Roderick O. Dressel, Dressel Farms, New Paltz, NY
Jason A. Grizzanti, Warwick Valley Wine, Co., Inc., Warwick, NY
Charles Lain, Jr., Pine Island Turf Nursery, Inc., Pine Island, NY
John J. Lupinski, Goshen, NY

**POTSDAM, NY**
Mark Akins, Five Mile Farms, Lisbon, NY
Dan Chambers, Chambers Farms, LLC, Heuvelton, NY
Blake Gendebien, Twin Mill Farms, LLC, Ogdensburg, NY
Andrew Gilbert, Potsdam, NY
Allen Kelly, Kelly Farms, Rensselaer Falls, NY
Jeff Liberty, Tri-Town Packing Corporation, Winthrop, NY
Keith Pierce, Royal J Acres, LLC, Ogdensburg, NY
Patrick Smith, LT Smith and Sons, Canton, NY

**PRESQUE ISLE, ME**
Bryan Bell, Bell Brothers,. Inc., Mars Hill, ME
Barry Buck, Buck Farms, Mapleton, ME
Jake Dyer, Benedicta Grain, Monticello, ME
Andrea Gregg, Maple Meadow Farms, Mapleton, ME
Matt Griffeth, Griffeth Farms, Limestone, ME
Beth Guimond, J.G. Logging, Inc., Fort Kent, ME
Nick McCrum, County Farms, LLC, Mars Hill, ME
Andy McGlinn, Triple Crown Farms, Inc., Presque Isle, ME
Steve Ouellette, Frank Martin Sons, Inc., Fort Kent Mills, ME
Greg Schools, Littleton, ME
Emily Smith, Smith’s Farm, Inc., Presque Isle, ME
Brian Souers, Treeline, Inc., Lincoln, ME

**RIVERHEAD, NY**
Karl Auwaerter, Bayport Flower Houses, Inc., Bayport, NY
Lou Caracciolo, Jr., Shade Trees Nursery, Inc., Jamesport, NY
Eddy Creces, Koppert Cress USA, LLC, Cutchogue, NY
Carl Gabrielsen, Gabrielsen Farms, LLC, Jamesport, NY
Adam Halsey, Halsey Farm, Water Mill, NY
Edward Harbes IV, Harbes Family of Farms, LLC, Mattituck, NY
Eve Kaplan-Walbrecht, Garden of Eve, Riverhead, NY
Norman Keil, N & O Horticultural Products, Inc., St. James, NY
Bob Nolan, Deer Run Farm, Patchogue, NY

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## SENIOR OFFICERS

| | |
|---|---|
| William J. Lipinski | Chief Executive Officer |
| Paul S. Bajgier | Senior Vice President and Treasurer |
| William S. Bathel | Executive Vice President and Chief Risk Officer |
| Briana S. Beebe | Senior Vice President and Human Resources Director |
| Gary R. Bradley | Executive Vice President and Regional Manager |
| John P. Caltabiano | Executive Vice President and Regional Manager |
| Thomas W. Cosgrove | Senior Vice President of Knowledge Exchange, Public Relations and Marketing |
| Alena C. Gfeller | Executive Vice President, Corporate Secretary and General Counsel |
| Andrew N. Grant | Executive Vice President and Chief Financial Officer |
| Brian K. Monckton | Executive Vice President and Regional Manager |
| Frederick H. Morton | Executive Vice President and Regional Manager |
| Roger E. Murray | Executive Vice President and Business Unit Manager |
| Michael J. Reynolds | Executive Vice President and Chief Business Officer |

## BOARD OF DIRECTORS

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| Matthew W. Beaton | Chair |
| Laurie K. Griffen | Vice Chair |
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| Peter R. Call | Director |
| Tim C. Chan | Outside Director |
| Daniel J. Corey | Director |
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| Lisa P. Sellew | Director |
| Douglas W. Shelmidine | Director |
| Diane D. Souza | Outside Director |
| Peter H. Triandafillou | Appointed Director |
| Terry R. Zittel | Director |