



10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act. Large accelerated filer    Accelerated filer    Non-accelerated filer    Smaller reporting company    Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).    Yes    No

The Registrant does not issue capital stock because it is a tax-exempt cooperative.

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## FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains certain statements that are considered “forward-looking statements” within the Securities Act of 1933, as amended, and the Exchange Act of 1934, as amended. Forward-looking statements, which are based on certain assumptions and describe our future plans, strategies and expectations, are generally identified by our use of words such as “intend,” “plan,” “may,” “should,” “will,” “project,” “estimate,” “anticipate,” “believe,” “continue,” “potential,” “opportunity” and similar expressions, whether in the negative or affirmative. All statements about future expectations or projections, including statements about loan volume, the appropriateness of the allowance for loan losses, operating income and expenses, leverage and debt-to-equity ratios, borrower financial performance, impaired loans, and sources and uses of liquidity, are forward-looking statements. Although we believe that the expectations reflected in our forward-looking statements are based on reasonable assumptions, actual results and performance may differ materially from our forward-looking statements due to several factors. Factors that could cause future results to vary from our forward-looking statements include, but are not limited to, general economic conditions, legislative changes including those that could affect our tax status, governmental monetary and fiscal policies, demand for our loan products, lending competition, changes in the quality or composition of our loan portfolio, changes in our ability to access external financing, changes in the credit ratings on our debt, valuation of collateral supporting impaired loans, charges associated with our operation or disposition of foreclosed assets, regulatory and economic conditions in the rural electric industry, nonperformance of counterparties to our derivative agreements, the costs and effects of legal or governmental proceedings involving us or our members and the factors listed and described under “Item 1A. Risk Factors” of this Report. Except as required by law, we undertake no obligation to update or publicly release any revisions to forward-looking statements to reflect events, circumstances or changes in expectations after the date on which the statement is made.

## PART I

### Item 1. Business OVERVIEW

National Rural Utilities Cooperative Finance Corporation (“CFC”) is a member-owned cooperative association incorporated under the laws of the District of Columbia in April 1969. CFC’s principal purpose is to provide its members with financing to supplement the loan programs of the Rural Utilities Service (“RUS”) of the United States Department of Agriculture (“USDA”). CFC makes loans to its rural electric members so they can acquire, construct and operate electric distribution, generation, transmission and related facilities. CFC also provides its members with credit enhancements in the form of letters of credit and guarantees of debt obligations. As a cooperative, CFC is owned by and exclusively serves its membership, which consists of not-for-profit entities or subsidiaries or affiliates of not-for-profit entities. CFC is exempt from federal income taxes under Section 501(c)(4) of the Internal Revenue Code. As a member-owned cooperative, CFC’s objective is not to maximize profit, but rather to offer members cost-based financial products and services. As described below under “Allocation and Retirement of Patronage Capital,” CFC annually allocates its net earnings, which consist of net income excluding the effect of certain noncash accounting entries, to (i) a cooperative educational fund; (ii) a general reserve, if necessary; (iii) members based on each member’s patronage of CFC’s loan programs during the year; and (iv) a members’ capital reserve. CFC funds its activities primarily through a combination of public and private issuances of debt securities, member investments and retained equity. As a Section 501(c)(4) tax-exempt, member-owned cooperative, we cannot issue equity securities.

Our financial statements include the consolidated accounts of CFC, National Cooperative Services Corporation (“NCSC”), Rural Telephone Finance Cooperative (“RTFC”) and subsidiaries created and controlled by CFC to hold foreclosed assets resulting from defaulted loans or bankruptcy. Unless stated otherwise, references to “we,” “our” or “us” relate to CFC and its consolidated entities. All references to members within this document include members, associates and affiliates of CFC and its consolidated entities.



NCSC is a taxable cooperative incorporated in 1981 in the District of Columbia as a member-owned cooperative association. The principal purpose of NCSC is to provide financing to its members, entities eligible to be members of CFC and the for-profit and nonprofit entities that are owned, operated or controlled by, or provide significant benefit to Class A, B and C members of CFC. See “Members” below for a description of our member classes. NCSC’s membership consists of distribution systems, power supply systems and statewide and regional associations that were members of CFC as of

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May 31, 2017. CFC, which is the primary source of funding for NCSC, manages NCSC's business operations under a management agreement that is automatically renewable on an annual basis unless terminated by either party. NCSC pays CFC a fee and, in exchange, CFC reimburses NCSC for loan losses under a guarantee agreement. As a taxable cooperative, NCSC pays income tax based on its reported taxable income and deductions. NCSC is headquartered with CFC in Dulles, Virginia.

RTFC is a taxable Subchapter T cooperative association originally incorporated in South Dakota in 1987 and reincorporated as a member-owned cooperative association in the District of Columbia in 2005. RTFC's principal purpose is to provide financing for its rural telecommunications members and their affiliates. RTFC's membership consists of a combination of not-for-profit and for-profit entities. CFC is the sole lender to and manages the business operations of RTFC through a management agreement that is automatically renewable on an annual basis unless terminated by either party. Under a guarantee agreement, RTFC pays CFC a fee and, in exchange, CFC reimburses RTFC for loan losses. As permitted under Subchapter T of the Internal Revenue Code, RTFC pays income tax based on its taxable income, excluding patronage-sourced earnings allocated to its patrons. RTFC is headquartered with CFC in Dulles, Virginia.

Our principal operations are currently organized for management reporting purposes into three business segments: CFC, NCSC and RTFC. We provide information on the financial performance of our business segments in "Note 15—Business Segments."

#### OUR BUSINESS

Our business strategy and policies are set by our board of directors and may be amended or revised from time to time by the board of directors. We are a non-profit tax-exempt cooperative finance organization, whose primary focus is to provide our members with the credit products they need to fund their operations. As such, our business focuses on lending to electric systems and securing access to capital through diverse funding sources at rates that allow us to offer competitively priced credit products to our members.

#### Focus on Electric Lending

CFC focuses on lending to electric utility cooperatives. Most of our electric cooperative borrowers continue to demonstrate stable operating performance and strong financial ratios. Our electric cooperative members experience limited competition as they generally operate in exclusive territories and the majority are not rate regulated. Loans to electric utility organizations represented approximately 99% of total loans outstanding as of both May 31, 2017 and 2016. Over the last five years, total loans outstanding to electric utility organizations have increased by approximately 31%.

#### Maintain Diversified Funding Sources

We strive to maintain diversified funding sources beyond capital market offerings of debt securities. We offer various short- and long-term unsecured debt securities to our members and affiliates, including commercial paper, select notes, daily liquidity fund notes, medium-term notes and subordinated certificates. While we continue to issue debt securities, such as secured collateral trust bonds and unsecured medium-term notes, in the capital markets and offer investments in commercial paper to non-members, we also have access to funds through bank revolving line of credit arrangements, government-guaranteed funding programs such as the Guaranteed Underwriter Program (the "Guaranteed Underwriter Program") of RUS, an agency of the USDA, as well as private placement note purchase agreements with the Federal Agricultural Mortgage Corporation ("Farmer Mac"). We provide additional information on our funding sources in "Item 7. MD&A—Consolidated Balance Sheet Analysis," "Item 7. MD&A—Liquidity Risk," "Note 6—Short-Term Borrowings," "Note 7—Long-Term Debt," "Note 8—Subordinated Deferrable Debt" and "Note 9—Members' Subordinated Certificates."



## LOAN PROGRAMS

CFC and NCSC lend to their members and associates. RTFC lends to its members, organizations affiliated with its members and associates. See “Item 1. Business—Members” for additional information on the entities that comprise our membership. Loans to NCSC associates may require a guarantee of repayment to NCSC from the CFC member cooperative with which it is affiliated. CFC, NCSC and RTFC loans generally contain provisions that restrict further borrower advances or trigger an event of default if there is any material adverse change in the business or condition, financial or otherwise, of the borrower.

### CFC Loan Programs

#### Long-Term Loans

CFC’s long-term loans generally have the following characteristics:

- terms of up to 35 years on a senior secured basis;
- amortizing or bullet maturity loans with serial payment structures;
- the property, plant and equipment financed by and securing the long-term loan has a useful life equal to or in excess of the loan maturity;
- flexibility for the borrower to select a fixed interest rate for periods of one to 35 years or a variable interest rate; and
- the ability for the borrower to select various tranches with either a fixed or variable interest rate for each tranche.

Borrowers typically have the option of selecting a fixed or variable interest rate at the time of each advance on long-term loan facilities. When selecting a fixed rate, the borrower has the option to choose a fixed rate for a term of one year through the final maturity of the loan. When the selected fixed interest rate term expires, the borrower may select another fixed rate for a term of one year through the loan maturity or the current variable rate. Long-term fixed rates are set daily for new loan advances and loans that reprice. The fixed rate on each loan is generally determined on the day the loan is advanced or repriced based on the term selected. The variable rate is set on the first day of each month.

To be in compliance with the covenants in the loan agreement and eligible for loan advances, distribution systems generally must maintain an average modified debt service coverage ratio, as defined in the loan agreement, of 1.35 or greater. CFC may make long-term loans to distribution systems, on a case-by-case basis, that do not meet these general criteria. Power supply systems generally are required either (i) to maintain an average modified debt service coverage ratio, as defined in the loan agreement, of 1.00 or greater or (ii) to establish and collect rates and other revenue in an amount to yield margins for interest, as defined in an indenture, in each fiscal year sufficient to equal at least 1.00 or (iii) both. CFC may make long-term loans to power supply systems, on a case-by-case basis, that may include other requirements, such as maintenance of a minimum equity level.

#### Line of Credit Loans

Line of credit loans are designed primarily to assist borrowers with liquidity and cash management and are generally advanced at variable interest rates. Line of credit loans are typically revolving facilities. Certain line of credit loans require the borrower to pay off the principal balance for at least five consecutive business days at least once during each 12-month period. Line of credit loans are generally unsecured and may be conditional or unconditional facilities.

Line of credit loans also are made available as interim financing when a member either receives RUS approval to obtain a loan and is awaiting its initial advance of funds or submits a loan application that is pending approval from RUS (sometimes referred to as “bridge loans”). In these cases, when the borrower receives the RUS loan advance, the

funds must be used to repay the bridge facilities.

#### Syndicated Line of Credit Loans

A syndicated line of credit loan is typically a large financing offered by a group of lenders that work together to provide funds for a single borrower. Syndicated loans are generally unsecured, floating-rate loans that can be provided on a revolving or term basis for tenors that range from several months to five years. Syndicated financings are arranged for borrowers on a case-by-case basis. CFC may act as lead lender, arranger and/or administrative agent for the syndicated

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facilities. CFC uses its best efforts to syndicate the loan requirements of certain borrowers. The success of such efforts depends on the financial position and credit quality of the borrower as well as market conditions.

#### NCSC Loan Programs

##### Long-Term Loans

NCSC's long-term loans generally have the following characteristics:

- terms of up to 35 years on a senior secured or unsecured basis;
- amortizing or bullet maturity loans with serial payment structures;
- the property, plant and equipment financed by and securing the long-term loan has a useful life equal to or in excess of the loan maturity;
- flexibility for the borrower to select a fixed interest rate for periods of one to 35 years or a variable interest rate; and
- the ability for the borrower to select various tranches with either a fixed or variable interest rate for each tranche.

NCSC allows borrowers to select a fixed interest rate or a variable interest rate at the time of each advance on long-term loan facilities. When selecting a fixed rate, the borrower has the option to choose a fixed rate for a term of one year through the final maturity of the loan. When the selected fixed interest rate term expires, the borrower may select another fixed rate for a term of one year through the loan maturity or the current variable rate. The fixed rate on a loan generally is determined on the day the loan is advanced or repriced based on the term selected. The variable rate is set on the first day of each month.

##### Line of Credit Loans

NCSC also provides revolving line of credit loans, which are generally unsecured, to assist borrowers with liquidity and cash management on terms similar to those provided by CFC and RTFC as described herein.

#### RTFC Loan Programs

Loans to rural local exchange carriers or holding companies of rural local exchange carriers represented 97% of RTFC's total outstanding loans as of both May 31, 2017 and 2016. Most of these rural telecommunications companies have diversified their operations and also provide broadband services.

##### Long-Term Loans

RTFC makes long-term loans to rural telecommunications systems for debt refinancing, construction or upgrades of infrastructure, acquisitions and other corporate purposes.

RTFC's long-term loans generally have the following characteristics:

- terms not exceeding 10 years on a senior secured basis;
- the property, plant and equipment financed by and securing the long-term loan has a useful life equal to or in excess of the loan maturity;
- flexibility for the borrower to select a fixed interest rate for periods from one year to the final loan maturity or a variable interest rate; and
- the ability for the borrower to select various tranches with either a fixed or variable interest rate for each tranche.

When a selected fixed interest rate term expires, generally the borrower may select another fixed-rate term or the current variable rate. The fixed rate on a loan is generally determined on the day the loan is advanced or converted to a fixed rate based on the term selected. The variable rate is set on the first day of each month.

To borrow from RTFC, a rural telecommunication system generally must be able to demonstrate the ability to achieve and maintain an annual debt service coverage ratio of 1.25. RTFC may make long-term loans to rural telecommunication systems, on a case-by-case basis, that do not meet this general criterion.

## Line of Credit Loans

Line of credit loans are generally unsecured. Line of credit loans are designed primarily to assist borrowers with liquidity and cash management and generally are advanced at variable interest rates. Line of credit loans are typically revolving facilities and generally require the borrower to pay off the principal balance for at least five consecutive business days at least once during each 12-month period. Line of credit loans also are made available as interim financing, or bridge loans, when a borrower either receives RUS approval to obtain a loan and is awaiting its initial advance of funds or submits a loan application that is pending approval from RUS. RUS loan advances, when received, must be used to repay these bridge facilities.

## Loan Features and Options

### Interest Rates

As a member-owned cooperative finance organization, we are a cost-based lender. As such, our interest rates are set based on a yield that we believe will generate a reasonable level of earnings to cover our cost of funding, general and administrative expenses and loan loss provision. Various standardized discounts may reduce the stated interest rates for Class A and Class B borrowers meeting certain criteria related to performance, volume, collateral and equity requirements.

### Conversion Option

Generally, a borrower may convert a long-term loan from a variable interest rate to a fixed interest rate at any time without a fee and convert a long-term loan from a fixed rate to another fixed rate or to a variable rate at any time upon payment of a conversion fee, if applicable, based on current loan policies.

### Prepayment Option

Generally, borrowers may prepay long-term fixed-rate loans at any time, subject to payment of an administrative fee and a make-whole premium, and prepay long-term variable-rate loans at any time, subject to payment of an administrative fee. Line of credit loans may be prepaid at any time without a fee, unless the interest rate on the loan is fixed or based on a London Interbank Offered Rate (“LIBOR”) index.

## Loan Security

Long-term loans typically are senior secured on parity with other secured lenders (primarily RUS), if any, by all assets and revenue of the borrower, subject to standard liens typical in utility mortgages such as those related to taxes, worker’s compensation awards, mechanics’ and similar liens, rights-of-way and governmental rights. We are able to obtain liens on parity with liens for the benefit of RUS because RUS’ form of mortgage expressly provides for other lenders such as CFC to have a parity lien position if the borrower satisfies certain conditions or obtains a written lien accommodation from RUS. When we make loans to borrowers that have existing loans from RUS, we generally require those borrowers to either obtain such a lien accommodation or satisfy the conditions necessary for our loan to be secured on parity under the mortgage with the loan from RUS. As noted above, our line of credit loans generally are unsecured.

We provide additional information on our loan programs in “Item 7. MD&A—Consolidated Balance Sheet Analysis,” “MD&A—Off-Balance Sheet Arrangements” and “MD&A—Credit Risk.”





## GUARANTEE PROGRAMS

When we guarantee our members' debt obligations, we use the same credit policies and monitoring procedures for guarantees as for loans. If a member system defaults in its obligation to pay debt service, then we are obligated to pay any required amounts under our guarantees. Meeting our guarantee obligations satisfies the underlying obligation of our member systems and prevents the exercise of remedies by the guarantee beneficiary based upon a payment default by a member system. The member system is required to repay any amount advanced by us with interest pursuant to the documents evidencing the member system's reimbursement obligation. We were not required to perform pursuant to any of our guarantee obligations during the year ended May 31, 2017.

### Guarantees of Long-Term Tax-Exempt Bonds

We guarantee debt issued for our members' construction or acquisition of pollution control, solid waste disposal, industrial development and electric distribution facilities. Governmental authorities issue such debt on a non-recourse basis and the interest thereon is exempt from federal taxation. The proceeds of the offering are made available to the member system, which in turn is obligated to pay the governmental authority amounts sufficient to service the debt.

If a system defaults for failure to make the debt payments, we are obligated to pay, after available debt service reserve funds have been exhausted, scheduled debt service under our guarantee. Such payment will prevent the occurrence of an event of payment default that would otherwise permit acceleration of the bond issue. The system is required to repay any amount that we advance pursuant to our guarantee plus interest on that advance. This repayment obligation, together with the interest thereon, is typically senior secured on parity with other lenders (including, in most cases, RUS), by a lien on substantially all of the system's assets. If the security instrument is a common mortgage with RUS, then in general, we may not exercise remedies for up to two years following default. However, if the debt is accelerated under the common mortgage because of a determination that the related interest is not tax-exempt, the system's obligation to reimburse us for any guarantee payments will be treated as a long-term loan. The system is required to pay us initial and/or ongoing guarantee fees in connection with these transactions.

Certain guaranteed long-term debt bears interest at variable rates that are adjusted at intervals of one to 270 days including weekly, every five weeks or semi-annually to a level favorable to their resale or auction at par. If funding sources are available, the member that issued the debt may choose a fixed interest rate on the debt. When the variable rate is reset, holders of variable-rate debt have the right to tender the debt for purchase at par. In some transactions, we have committed to purchase this debt as liquidity provider if it cannot otherwise be re-marketed. If we hold the securities, the cooperative pays us the interest earned on the bonds or interest calculated based on our short-term variable interest rate, whichever is greater. The system is required to pay us stand-by liquidity fees in connection with these transactions.

### Letters of Credit

In exchange for a fee, we issue irrevocable letters of credit to support members' obligations to energy marketers, other third parties and to the USDA Rural Business and Cooperative Development Service. Each letter of credit is supported by a reimbursement agreement with the member on whose behalf the letter of credit was issued. In the event a beneficiary draws on a letter of credit, the agreement generally requires the member to reimburse us within one year from the date of the draw, with interest accruing from that date at our line of credit variable interest rate.

The Federal Communications Commission ("FCC") issued an order in May 2016 that designated CFC as an acceptable source for letters of credit in support of FCC programs that encourage deployment of high-speed broadband throughout rural America. The designation allows CFC to provide credit support for rural electric and telecommunication cooperatives that participate in programs designed to increase deployment of broadband services

to underserved rural areas.

#### Other Guarantees

We may provide other guarantees as requested by our members. Other guarantees are generally unsecured with guarantee fees payable to us.

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We provide additional information on our guarantee programs and outstanding guarantee amounts as of May 31, 2017 and 2016 in “Item 7. MD&A—Off-Balance Sheet Arrangements,” “Item 7. MD&A—Credit Risk—Loan and Guarantee Portfolio Credit Risk” and “Note 13—Guarantees.”

#### INVESTMENT POLICY

We invest funds in accordance with policies adopted by our board of directors. Pursuant to our current investment policy, an Investment Management Committee was established to oversee and administer our investments with the objective of seeking returns consistent with the preservation of principal and maintenance of adequate liquidity. The Investment Management Committee may direct funds to be invested in: direct obligations of, or guaranteed by, the United States or agencies thereof and investments in government-sponsored enterprises, certain financial institutions in the form of overnight investment products and Eurodollar deposits, bankers’ acceptances, certificates of deposit, working capital acceptances or other deposits. Other permitted investments include highly rated obligations, such as commercial paper, certain obligations of foreign governments, municipal securities, asset backed securities, mortgage-backed securities and certain corporate bonds. In addition, we may invest in overnight or term repurchase agreements. All of these investments are subject to certain limitations set forth in our investment policy.

#### INDUSTRY

##### Overview

Since the enactment of the Rural Electrification Act in 1936, RUS has financed the construction of electric generating plants, transmission facilities and distribution systems to provide electricity to rural areas. Principally through the creation of local electric cooperatives originally financed under the Rural Electrification Act loan program in 47 states and three U.S. territories, the percentage of farms and residences in rural areas of the United States receiving central station electric service increased from 11% in 1934 to almost 100% currently.

RUS makes loan guarantees and provides other forms of financial assistance to rural electric system borrowers. Under the Rural Electrification Act, RUS is authorized to make direct loans to systems that qualify for the hardship program (5% interest rate), the municipal rate program (based on a municipal government obligation index) and a Treasury rate program (at Treasury plus 0.125%). RUS also is authorized to guarantee loans that bear interest at a rate agreed upon by the borrower and the lender (which generally has been the Federal Financing Bank). RUS exercises oversight over borrowers’ operations. Its loans and guarantees are secured by a mortgage or indenture on substantially all of the system’s assets and revenue.

Leading up to CFC’s formation in 1969, there was a growing need for capital for electric cooperatives to build new electric facilities due to growth in rural America. The electric cooperatives formed CFC so a source of financing would be available to them to supplement the RUS loan programs and to mitigate uncertainty related to government funding.

CFC aggregates the combined strength of its rural electric member cooperatives to access the public capital markets. CFC works cooperatively with RUS; however, CFC is not a federal agency or a government-sponsored enterprise. Our members are not required to have outstanding loans from RUS as a condition of borrowing from CFC. CFC meets the financial needs of its rural members by:

- providing bridge loans required by borrowers in anticipation of receiving RUS funding;
- providing financial products not otherwise available from RUS including lines of credit, letters of credit, guarantees on tax-exempt financing, weather-related disaster recovery lines of credit, unsecured loans and investment products such as commercial paper, member capital securities, select notes and medium-term notes;
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meeting the financing needs of those rural electric systems that repay or prepay their RUS loans and replace the government loans with private capital; and  
providing financing to RUS-eligible rural electric systems for facilities that are not eligible for financing from RUS.

## Electric Member Competition

In general, electric cooperatives have not been significantly impacted by the effects of retail deregulation. As of May 31, 2017, there were 14 states that had adopted retail deregulation, which allows consumers to choose their supplier of electricity. Depending on the state, the choice can range from being limited to commercial and industrial consumers to “retail choice” for all consumers, including residential consumers. In most states, the cooperatives have been exempted from or have been allowed to opt out of the regulations allowing for competition. In states offering retail competition, it is important to note that while consumers may be able to choose their energy supplier, the electric utility still receives compensation for the necessary service of delivering electricity to consumers through its utility transmission and distribution plant.

The electric industry is facing a potential decrease to electricity demand due to technology advances that increase energy efficiency of all appliances and devices used in the home and in businesses as well as from distributed generation in the form of roof top solar and home generators (“behind the meter generation”). The electric cooperatives are facing the same issues, but in general to a lesser extent than investor-owned power systems. The electric cooperatives have options available to mitigate the impact of such issues, such as rate structures to ensure that costs are appropriately recovered for grid and other necessary ancillary services. To date, we have not seen negative impacts in the electric cooperative financial results due to behind the meter generation.

## Regulatory Oversight

There are 11 states in which some or all electric cooperatives are subject to state regulatory oversight of their rates and tariffs (terms and conditions) by state utility commissions. Those states are Arizona, Arkansas, Hawaii, Kentucky, Louisiana, Maine, Maryland, New Mexico, Vermont, Virginia and West Virginia.

Regulatory jurisdiction by state commissions generally includes rate and tariff regulation, the issuance of securities, and the enforcement of service territory as provided for by state law.

Parts II and III of the Federal Power Act (“FPA”) provide the Federal Energy Regulatory Commission (“FERC”) with regulatory authority over three aspects of electric power:

- the transmission of electric energy in interstate commerce;
- the sale of electric energy at wholesale in interstate commerce; and
- the approval and enforcement of reliability standards affecting all users, owners and operators of the bulk power system.

The FERC also regulates the issuance of securities by public utilities under the FPA provided the state commission does not.

Our distribution and power supply members are subject to regulation by various federal, regional, state and local authorities with respect to the environmental effects of their operations. At the federal level, the U.S. Environmental Protection Agency (“EPA”) from time-to-time proposes rulemakings that could force the electric utility industry to incur capital costs to comply with potential new regulations and possibly retire coal-fired generating capacity. Since there are only 11 states in which some or all electric cooperatives are subject to state regulatory oversight of their rates and tariffs, in most cases any associated costs of compliance can be passed on to cooperative consumers without additional regulatory approval. One EPA rulemaking is the Clean Power Plan (“CPP”). Falling under Section 111(d) of the federal Clean Air Act, the CPP is designed to cut carbon emissions (from 2005 levels) from existing fossil fuel fired power plants by 32% by 2030. The CPP is presently under legal review by United States Court of Appeals for the District of Columbia Circuit and the United States Supreme Court has stayed the rule pending disposition of this appeal. Most

recently, the Trump Administration has taken steps to review the CPP, beginning with an Executive Order directing the EPA to suspend, revise or rescind the regulation. In a future regulatory action, the EPA is expected to determine whether to work to replace the CPP with a more narrowly-focused rule or simply withdraw the CPP outright.

## LENDING COMPETITION

RUS is the largest lender to electric cooperatives. RUS provides long-term secured loans. CFC provides financial products and services, primarily in the form of long-term and short-term loans, to its electric cooperative members to supplement RUS financing, to provide loans to members that have elected not to borrow from RUS, and to bridge long-term financing provided by RUS.

CFC's primary competitor is CoBank, ACB, a federally chartered instrumentality of the United States that is a member of the Farm Credit System. CFC also competes with banks, other financial institutions and the capital markets to provide loans and other financial products to our members. As a result, we are competing with the customer service, pricing and funding options our members are able to obtain from these sources. We attempt to minimize the effect of competition by offering a variety of loan options and value-added services and by leveraging the working relationships developed with the majority of our members over the past 48 years. Further, on an annual basis, we allocate substantially all net earnings to members (i) in the form of patronage capital, which reduces our members' effective cost of borrowing and (ii) through the members' capital reserve. The value-added services that we provide include, but are not limited to, benchmarking tools, financial models, and various conferences, meetings and training workshops.

In order to meet other financing needs of our members, we offer options that include credit support in the form of letters of credit and guarantees, loan syndications and loan participations. Our credit products are tailored to meet the specific needs of each cooperative, and we often offer specific transaction structures that our competitors do not provide. CFC also offers certain risk mitigation products and interest rate discounts on secured, long-term loans for its members that meet certain criteria, including performance, volume, collateral and equity requirements.

CFC has established certain funds to benefit its members. Since 1981, CFC has set aside a portion of its annual net earnings in a cooperative educational fund to promote awareness and appreciation of the cooperative principles. As directed by the CFC Board of Directors, a portion of the contributions to the fund are distributed through the electric cooperative statewide associations. Since 1986, CFC has supported its members' efforts to protect their service territories from erosion or takeover by other utilities through assistance from the Cooperative System Integrity Fund, which is funded through voluntary contributions from members. Amounts from the Integrity Fund are distributed to applicants who establish that (i) all or a significant portion of their consumers, services or facilities face a hostile threat of acquisition or annexation by a competing entity; (ii) they face a significant threat in their ability to continue to provide non-electric energy services to customers; or (iii) they are facing regulatory, judicial or legislative challenges that threaten their existence under the cooperative business model.

Our rural electric borrowers are mostly private companies; thus, the overall size of the rural electric lending market cannot be determined from public information. We estimate the size of the overall rural electric lending market from the annual financial and statistical reports filed with us by our members using calendar year data; however, there are certain limitations with regard to these estimates, including the following:

- while the underlying data included in the financial and statistical reports may be audited, the preparation of the financial and statistical reports is not audited;
- in some cases, not all members provide the annual financial and statistical reports on a timely basis to be included in summarized results; and
- the financial and statistical reports do not include comprehensive data on indebtedness by lenders other than RUS.

According to financial data provided to us by our 807 reporting distribution systems and 58 reporting power supply systems as of December 31, 2016, and our 806 reporting electric cooperative distribution systems and 56 reporting power supply systems as of December 31, 2015, long-term debt outstanding to CFC, RUS and other lenders in the



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electric cooperative industry by those entities was as follows as of December 31, 2016 and 2015:

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(Dollars in thousands)	December 31, 2016		2015	
	Debt Outstanding	% of Total	Debt Outstanding	% of Total
Total long-term debt reported by members: <sup>(1)</sup>				
Distribution	\$47,362,415		\$45,899,178	
Power supply	47,853,905		46,535,775	
Less: Long-term debt funded by RUS	(39,273,545 )		(39,008,305 )	
Members' non-RUS long-term debt	\$55,942,775		\$53,426,648	

## Funding source of member's long-term debt:

Long-term debt funded by CFC	\$22,083,606	39 %	\$20,976,301	39 %
Long-term debt funded by other lenders	33,859,169	61	32,450,347	61
Members' non-RUS long-term debt	\$55,942,775	100 %	\$53,426,648	100 %

<sup>(1)</sup> Reported amounts are based on member-provided information, which may not have been subject to audit by an independent accounting firm. The long-term debt amount reported by members as of December 31, 2015 has been revised for comparability purposes to include financial information received from two large power supply members subsequent to the filing of our prior year annual report on Form 10-K. The outstanding long-term debt for these members is included in the amounts reported as of December 31, 2016.

Members' long-term debt funded by CFC, by type, as of December 31, 2016 and 2015 is summarized further below.

(Dollars in thousands)	December 31, 2016		2015	
	Debt Outstanding	% of Total	Debt Outstanding	% of Total
Distribution	\$17,825,633	81 %	\$16,812,293	80 %
Power supply	4,257,973	19	4,164,008	20
Long-term debt funded by CFC	\$22,083,606	100 %	\$20,976,301	100 %

We are not able to specifically identify the amount of debt our members have outstanding to CoBank, ACB, from either the annual financial and statistical reports our members file with us or from CoBank, ACB's public disclosure, but we believe that CoBank, ACB, is the lender other than CFC and RUS with significant long-term debt outstanding to the rural electric cooperatives.

## REGULATION

## General

CFC, NCSC and RTFC are not subject to direct federal regulatory oversight or supervision with regard to lending. CFC, NCSC and RTFC are subject to state and local jurisdiction commercial lending and tax laws that pertain to business conducted in each state, including but not limited to lending laws, usury laws and laws governing mortgages. These state and local laws regulate the manner in which we make loans and conduct other types of transactions. The statutes, regulations, and policies to which the companies are subject may change at any time. In addition, the interpretation and application by regulators of the laws and regulations to which the Company is subject may change from time to time. Certain of our contractual arrangements, such as those pertaining to funding obtained through the Guaranteed Underwriter Program, provide for the Federal Financial Bank and RUS to periodically review and assess CFC's compliance with program terms and conditions.

## Derivatives Regulation

As an end user of derivative financial instruments, CFC is subject to regulations that apply to derivatives generally.  
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Dodd-Frank Act (“DFA”), enacted July 2010, resulted in, among other things, comprehensive regulation of the over-the-counter (“OTC”) derivatives market. The DFA provides for an extensive framework for the regulation of OTC derivatives, including mandatory clearing, exchange trading and transaction reporting of certain OTC derivatives. In August 2013, the U.S. Commodities Futures Trading Commission (“CFTC”) issued a final rule “Clearing Exemption for Certain Swaps Entered into by Cooperatives,” which created an exemption from mandatory clearing for cooperatives. In April 2016, the CFTC issued a final rule “Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants,” which includes an exemption from margin requirements for uncleared swaps for cooperatives that are financial end users. CFC is an exempt cooperative end user of derivative financial instruments and does not participate in the derivatives markets for speculative, trading or investing purposes and does not make a market in derivatives. CFC engages in over-the-counter derivative transactions to hedge the interest rate risks associated with lending to its cooperative members.

## MEMBERS

Our consolidated membership, after taking into consideration entities that are members of both CFC and NCSC and eliminating memberships between CFC, NCSC and RTFC, totaled 1,461 members and 219 associates as of May 31, 2017.

## CFC

CFC’s bylaws provide that cooperative or nonprofit corporations, public corporations, utility districts and other public bodies that received or are eligible to receive a loan or commitment for a loan from RUS or any successor agency (as well as subsidiaries, federations or statewide and regional associations that are wholly owned or controlled by such entities) are eligible for membership. One of the criteria for eligibility for RUS financing is a “rural area” test. CFC relies on the definition of “rural” as specified in the Rural Electrification Act, as amended. “Rural” is defined in the Rural Electrification Act as any area other than a city, town or unincorporated area that has a population of less than 20,000, or any area within the service area of a borrower who, at the date of enactment of the Food, Conservation and Energy Act of 2008, had an outstanding RUS electric loan. The definition of “rural” under the act permits an area to be defined as “rural” regardless of the development of such area subsequent to the approval of the outstanding loan. Thus, those entities that received or qualify for financing from RUS are eligible to apply for membership, upon approval of membership by the CFC Board of Directors, and subsequently borrow from CFC regardless of whether there is an outstanding loan with RUS. There are no requirements to maintain membership, although the board has the authority to suspend a member under certain circumstances. CFC has not suspended a member to date.

CFC has the following types of members, all of which are not-for-profit entities or subsidiaries or affiliates of not-for-profit entities.

### Class A – Distribution Systems

Cooperative or nonprofit corporations, public corporations, utility districts and other public bodies, which received or are eligible to receive a loan or commitment for a loan from RUS or any successor agency, and that are engaged or planning to engage in furnishing utility services to their members and patrons for their use as ultimate consumers. The majority of our distribution system members are consumer-owned electric cooperatives.

Distribution systems are utilities engaged in retail sales of electricity to residential and commercial consumers in their defined service areas. Such sales are generally on an exclusive basis using the distribution system’s infrastructure, including substations, wires and related support systems. Distribution systems vary in size from small systems that serve a few thousand customers to large systems that serve more than 200,000 customers. Thus, the amount of loan funding required by different distribution systems varies significantly. Distribution systems may serve customers in more than one state.

Most distribution systems have all-requirements power purchase contracts with their power supply systems, which are owned and controlled by the member distribution systems. Wholesale power for resale also comes from other sources, including power supply contracts with government agencies, investor-owned utilities and other entities, and, in some cases, the distribution systems own generating facilities.

### Class B – Power Supply Systems

Cooperative or nonprofit corporations that are federations of Class A members or of other Class B members, or both, or that are owned and controlled by Class A members or by other Class B members, or both, and that are engaged or planning to engage in furnishing utility services primarily to Class A members or other Class B members. Our power supply system members are member-owned electric cooperatives.

The power supply systems vary in size from one with thousands of megawatts of power generation capacity to systems that have no generating capacity, which generally operate transmission lines to supply certain distribution systems or manage power supply purchase arrangements for the benefit of their distribution system members. Thus, the amount of loan funding required by different power supply systems varies significantly. Power supply members may serve distribution systems located in more than one state.

The wholesale power supply contracts with their distribution system members permit the power supply system, subject to regulatory approval in certain instances, to establish rates to produce revenue sufficient to cover debt service, to meet the cost of operation and maintenance of all generation, transmission and related facilities and to pay the cost of any power and energy purchased for resale.

### Class C – Statewide and Regional Associations

Statewide and regional associations that are wholly owned or controlled by Class A members or Class B members, or both, or that are wholly owned subsidiaries of a CFC member, and that do not furnish utility services but supply other forms of service to their members. Such statewide organizations provide training and legislative, regulatory, media and related services. Certain states have an organization that represents and serves the distribution systems and power supply systems located in the state.

### Class D – National Associations of Cooperatives

National associations of cooperatives that are Class A, Class B and Class C members, provided said national associations have, at the time of admission to membership in CFC, members domiciled in at least 80% of the states in the United States. National Rural Electric Cooperative Association (“NRECA”) is our sole Class D member. NRECA provides training, sponsors regional and national meetings, and provides legislative, regulatory, media and related services for nearly all rural electric cooperatives.

CFC Class A, B, C and D members are eligible to vote on matters put to a vote of the membership. Associates are not eligible to vote on matters put to a vote of the membership.

CFC’s membership as of May 31, 2017 consisted of:

- 839 Class A distribution systems;
- 70 Class B power supply systems;
- 64 Class C statewide and regional associations, including NCSC; and
- 1 Class D national association of cooperatives.

In addition, CFC has associates that are nonprofit groups or entities organized on a cooperative basis that are owned, controlled or operated by Class A, B, C or D members and are engaged in or plan to engage in furnishing non-electric services primarily for the benefit of the ultimate consumers of CFC members. CFC had 48 associates, including RTFC, as of May 31, 2017.

NCSC

Membership in NCSC includes organizations that are Class A, B or C members of CFC, or eligible for such membership and are approved for membership by the NCSC Board of Directors.

NCSC's membership consisted of 426 distribution systems, 2 power supply systems and 3 statewide associations as of May 31, 2017. All of NCSC's members also were CFC members. CFC, however, is not a member of NCSC. In addition to members, NCSC had 167 associates as of May 31, 2017. NCSC's associates may include members of CFC, entities eligible

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to be members of CFC and for-profit and not-for-profit entities that are owned, controlled or operated by or provide significant benefit to Class A, B and C members of CFC.

#### RTFC

Membership in RTFC is limited to cooperative corporations, private corporations, public corporations, nonprofit corporations, utility districts and other public bodies that are approved by the RTFC Board of Directors and are actively borrowing or are eligible to borrow from RUS's traditional infrastructure loan program. These companies must be engaged directly or indirectly in furnishing telephone services as the licensed incumbent carrier. Holding companies, subsidiaries and other organizations that are owned, controlled or operated by members are referred to as affiliates, and are eligible to borrow from RTFC. Associates are organizations that provide non-telecommunications services to rural telecommunications companies that are approved by the RTFC Board of Directors. Neither affiliates nor associates are eligible to vote at meetings of the members.

RTFC's membership consisted of 488 members as of May 31, 2017. RTFC also had 5 associates as of May 31, 2017. CFC is not a member of RTFC.

The business affairs of CFC, NCSC and RTFC are governed by separate boards of directors for each entity. We provide additional information on CFC's corporate governance in "Item 10. Directors, Executive Officers and Corporate Governance."

#### TAX STATUS

In 1969, CFC obtained a ruling from the Internal Revenue Service recognizing CFC's exemption from the payment of federal income taxes as an organization described under Section 501(c)(4) of the Internal Revenue Code.

In order for CFC to maintain its exemption under Section 501(c)(4) of the Internal Revenue Code, CFC must be "not organized for profit" and must be "operated exclusively for the promotion of social welfare" within the meaning of that section of the tax code. The Internal Revenue Service determined that CFC is an organization that is "operated exclusively for the promotion of social welfare" because the ultimate beneficiaries of its lending activities, like those of the RUS loan program, are the consumers of electricity produced by rural electric systems, the communities served by these systems and the nation as a whole.

As an organization described under Section 501(c)(4) of the Internal Revenue Code, no part of CFC's net earnings can inure to the benefit of any private shareholder or individual. This requirement is referred to as the private inurement prohibition and was added to Section 501(c)(4) of the Internal Revenue Code in 1996. A legislative exception allows organizations like CFC to continue to make allocations of net earnings to members in accordance with its cooperative status.

CFC believes its operations have not changed materially from those described to the Internal Revenue Service in its exemption filing. CFC reviews the impact on operations of any new activity or potential change in product offerings or business in general to determine whether such change in activity or operations would be inconsistent with its status as an organization described under Section 501(c)(4).

NCSC is a taxable cooperative that pays income tax based on its taxable income and deductions.

RTFC is a taxable cooperative under Subchapter T of the Internal Revenue Code and is not subject to income taxes on income from patronage sources that is allocated to its borrowers, as long as the allocation is properly noticed and at least 20% of the amount allocated is retired in cash prior to filing the applicable tax return. RTFC pays income tax based on its taxable income and deductions, excluding amounts allocated to its borrowers.





## ALLOCATION AND RETIREMENT OF PATRONAGE CAPITAL

District of Columbia cooperative law requires cooperatives to allocate net earnings to patrons, to a general reserve in an amount sufficient to maintain a balance of at least 50% of paid-up capital, and to a cooperative educational fund, as well as permits additional allocations to board-approved reserves. District of Columbia cooperative law also requires that a cooperative's net earnings be allocated to all patrons in proportion to their individual patronage and each patron's allocation be distributed to the patron unless the patron agrees that the cooperative may retain its share as additional capital.

### CFC

Annually, the CFC Board of Directors allocates its net earnings to its patrons in the form of patronage capital, to a cooperative educational fund, to a general reserve, if necessary, and to other board-approved reserves. Net earnings are calculated by adjusting net income to exclude the noncash effects of the accounting for derivative financial instruments. Patronage capital is not allocated to members if CFC has an adjusted net loss. Net losses, if any, do not affect amounts previously allocated as patronage capital or to the reserves. Net earnings are first applied against prior-period losses, if any, before an allocation of patronage capital is made. CFC has never experienced an adjusted net loss.

An allocation to the general reserve is made, if necessary, to maintain the balance of the general reserve at 50% of the membership fees collected. CFC's bylaws require the allocation to the cooperative educational fund to be at least 0.25% of its net earnings. Funds from the cooperative educational fund are disbursed annually to statewide cooperative organizations to fund the teaching of cooperative principles and for other cooperative education programs.

Currently, CFC has one additional board-approved reserve, the members' capital reserve. The CFC Board of Directors determines the amount of net earnings that is allocated to the members' capital reserve, if any. The members' capital reserve represents net earnings that CFC holds to increase equity retention. The net earnings held in the members' capital reserve have not been specifically allocated to members, but may be allocated to individual members in the future as patronage capital if authorized by the CFC Board of Directors.

All remaining net earnings are allocated to CFC's members in the form of patronage capital. The amount of net earnings allocated to each member is based on the member's patronage of CFC's lending programs during the year. No interest is earned by members on allocated patronage capital. There is no effect on CFC's total equity as a result of allocating net earnings to members in the form of patronage capital or to board-approved reserves. The CFC Board of Directors has voted annually to retire a portion of the patronage capital allocation. Upon retirement, patronage capital is paid out in cash to the members to which it was allocated. CFC's total equity is reduced by the amount of patronage capital retired to its members and by amounts disbursed from board-approved reserves.

Pursuant to CFC's bylaws, the CFC Board of Directors determines the method, basis, priority and order of retirement of amounts allocated. The current policy of the CFC Board of Directors is to retire 50% of the prior fiscal year's allocated net earnings following the end of each fiscal year and to hold the remaining 50% for 25 years to fund operations. The amount and timing of future retirements remains subject to annual approval by the CFC Board of Directors, and may be affected by CFC's financial condition and other factors. The CFC Board of Directors has the authority to change the current practice for allocating and retiring net earnings at any time, subject to applicable cooperative law.

### NCSC

In accordance with District of Columbia cooperative law and its bylaws and board policies, NCSC allocates its net earnings to a cooperative educational fund, to a general reserve, if necessary, and to other board-approved reserves. Net earnings are calculated by adjusting net income to exclude the noncash effects of the accounting for derivative financial instruments. Net losses, if any, do not affect amounts previously allocated to the reserves.

Pursuant to NCSC's bylaws, the NCSC Board of Directors shall determine the method, basis, priority and order of amounts allocated. An allocation to the general reserve is made, if necessary, to maintain the balance of the general reserve at 50% of the membership fees collected. There is no effect on NCSC's total equity due to the allocation of net earnings to board-approved reserves. NCSC's bylaws require the allocation to the cooperative educational fund to be at least 0.25% of its net

earnings. Funds from the cooperative educational fund are disbursed annually to fund the teaching of cooperative principles and for other cooperative education programs.

## RTFC

In accordance with District of Columbia cooperative law and its bylaws and board policies, RTFC allocates its net earnings to its patrons, a cooperative educational fund and a general reserve, if necessary. Net losses are not allocated to members and do not affect amounts previously allocated as patronage capital or to the reserves. Current period earnings are first applied against any prior year losses before allocating patronage capital.

Pursuant to RTFC's bylaws, the RTFC Board of Directors shall determine the method, basis, priority and order of retirement of amounts allocated. RTFC's bylaws require that it allocate at least 1% of net earnings to a cooperative educational fund. Funds from the cooperative educational fund are disbursed annually to fund the teaching of cooperative principles and for other cooperative education programs. An allocation to the general reserve is made, if necessary, to maintain the balance of the general reserve at 50% of the membership fees collected. The remainder is allocated to borrowers in proportion to their patronage. RTFC provides notice to its members of the amount allocated and retires 20% of the allocation for that year in cash prior to the filing of the applicable tax return. Any additional amounts are retired as determined by the RTFC Board of Directors with due regard for RTFC's financial condition. There is no effect on RTFC's total equity due to the allocation of net earnings to members or board-approved reserves. The retirement of amounts previously allocated to members or amounts disbursed from board-approved reserves reduces RTFC's total equity.

## EMPLOYEES

We had 248 employees as of May 31, 2017. We believe that our relations with our employees are good.

## AVAILABLE INFORMATION

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to these reports, are available for free at [www.nrucfc.coop](http://www.nrucfc.coop) as soon as reasonably practicable after they are electronically filed with or furnished to the U.S. Securities and Exchange Commission ("SEC"). These reports also are available for free on the SEC's website at [www.sec.gov](http://www.sec.gov). Information posted on our website is not incorporated by reference into this Form 10-K.

## Item 1A. Risk Factors

Our financial condition, results of operations and liquidity are subject to various risks and uncertainties inherent in our business. If any of the events or circumstances described in the following risks actually occur, our business, liquidity, financial condition or results of operations could be adversely affected. The risks described below are the risks we consider to be material to our business. Other risks and uncertainties, including those not currently known to us, could also negatively impact our business, results of operations and financial condition. You should consider the following risks together with all of the other information in this Annual Report on Form 10-K.

## RISK FACTORS

If we are unable to access the capital markets or other external sources for funding, our liquidity may be negatively affected and we may not have sufficient funds to meet all of our obligations as they become due.

We depend on access to the capital markets and other sources of financing, such as our bank revolving credit agreements, investments from our members, private debt issuances through Farmer Mac and funding from the Federal Financing Bank guaranteed by RUS through the Guaranteed Underwriter Program, to fund new loan advances and refinance our long- and short-term debt and, if necessary, to fulfill our obligations under our guarantee and repurchase agreements. Market disruptions, downgrades to our long-term and/or short-term debt ratings, adverse changes in our

business or performance, downturns in the electric industry and other events over which we have no control may deny or limit our access to the capital markets and/or subject us to higher costs for such funding. Our access to other sources of funding also could be limited by the same factors, by adverse changes in the business or performance of our members, by the banks committed to

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our revolving credit agreements or Farmer Mac, or by changes in federal law or the Guaranteed Underwriter Program. Our funding needs are determined primarily by scheduled short- and long-term debt maturities and the amount of our loan advances to our borrowers relative to the scheduled payment amortization of loans previously made by us. If we are unable to timely issue debt into the capital markets or obtain funding from other sources, we may not have the funds to meet all of our obligations as they become due.

A reduction in the credit ratings for our debt could adversely affect our liquidity and/or cost of debt. Our credit ratings are important to our liquidity. We currently contract with three nationally recognized statistical rating organizations to receive ratings for our secured and unsecured debt and our commercial paper. In order to access the commercial paper markets at current levels, we believe that we need to maintain our current ratings for commercial paper of P1 from Moody's Investors Service ("Moody's"), A-1 from S&P Global Inc. ("S&P") and F-1 from Fitch Ratings Inc. ("Fitch"). Changes in rating agencies' rating methodology, actions by governmental entities or others, additional losses from impaired loans and other factors could adversely affect the credit ratings on our debt. A reduction in our credit ratings could adversely affect our liquidity and competitive position, increase our borrowing costs or limit our access to the capital markets and the sources of financing available to us. A significant increase in our cost of borrowings and interest expense could cause us to sustain losses or impair our liquidity by requiring us to seek other sources of financing, which may be difficult to obtain.

Our ability to maintain compliance with the covenants related to our revolving credit agreements, collateral trust bond and medium-term note indentures and debt agreements could affect our ability to retire patronage capital, result in the acceleration of the repayment of certain debt obligations, adversely impact our credit ratings by the rating agencies and hinder our ability to obtain financing.

We must maintain compliance with all covenants and conditions related to our revolving credit agreements and debt indentures. We are required to maintain a minimum adjusted times interest earned ratio ("adjusted TIER") for the six most recent fiscal quarters of 1.025 and an adjusted leverage ratio of no more than 10-to-1. In addition, we must maintain loans pledged as collateral for various debt issuances at or below 150% of the related secured debt outstanding as a condition to borrowing under our revolving credit agreements. If we were unable to borrow under the revolving credit agreements, our short-term debt ratings would likely decline, and our ability to issue commercial paper could become significantly impaired. Our revolving credit agreements also require that we earn a minimum annual adjusted TIER of 1.05 in order to retire patronage capital to members. See "MD&A—Non-GAAP Financial Measures" for additional information on our adjusted measures and a reconciliation to the most comparable GAAP measures.

Pursuant to our collateral trust bond indentures, we are required to maintain eligible pledged collateral at least equal to 100% of the principal amount of the bonds issued under the indenture. Pursuant to one of our collateral trust bond indentures and our medium-term note indenture, we are required to limit senior indebtedness to 20 times the sum of our members' equity, subordinated deferrable debt and members' subordinated certificates. If we were in default under our collateral trust bond or medium-term note indentures, the existing holders of these securities have the right to accelerate the repayment of the full amount of the outstanding debt principal of the security before the stated maturity of such debt. That acceleration of debt repayments poses a significant liquidity risk, as we might not have enough cash or committed credit available to repay the debt. In addition, if we are not in compliance with the collateral trust bond and medium-term note covenants, we would be unable to issue new debt securities under such indentures. If we were unable to issue new collateral trust bonds and medium-term notes, our ability to fund new loan advances and refinance maturing debt would be impaired.

We are required to pledge eligible distribution system or power supply system loans as collateral equal to at least 100% of the outstanding balance of debt issued under a revolving note purchase agreement with Farmer Mac. We also are required to pledge distribution or power supply loans as collateral equal to at least 100% of the outstanding balance of debt under the Guaranteed Underwriter Program. Collateral coverage less than 100% for either of these

debt programs constitutes an event of default, which if not cured within 30 days, could result in creditors accelerating the repayment of the outstanding debt principal before the stated maturity. An acceleration of the repayment of debt could pose a liquidity risk if we had insufficient cash or committed credit available to repay the debt. In addition, we would be unable to issue new debt securities under the applicable debt agreement, which could impair our ability to fund new loan advances and refinance maturing debt.

Changes in the level and direction of interest rates could adversely affect our financial results.

Our earnings are largely dependent on net interest income. Our interest rate risk exposure is primarily related to the funding of a fixed-rate loan portfolio. We have a matched funding objective that is intended to manage the funding of asset and liability repricing terms within a range of total assets based on the current environment and extended outlook for interest rates. We maintain a limited unmatched position, or interest rate gap, on our fixed-rate assets within a targeted range of adjusted total assets to provide us with funding flexibility.

Our primary strategies for managing interest rate risk include the use of derivatives and limiting the amount of fixed-rate assets that can be funded by variable-rate debt to a specified percentage of total assets based on market conditions. We face the risk that changes in interest rates could reduce our net interest income and our earnings, especially if actual conditions turn out to be materially different than those we assumed. Fluctuations in interest rates, including changes in the relationship between short-term rates and long-term rates may affect the pricing of loans to borrowers and our cost of funds, which could adversely affect the difference between the interest that we earn on assets and the interest we pay on liabilities used to fund our assets. Such changes may also affect our ability to hedge various forms of market and interest rate risk and may decrease the effectiveness of those hedges in helping to manage such risks, which could cause our interest rate gap to exceed our targeted range and have an adverse impact on our net interest income, earnings and cash flows. See “Item 7. MD&A—Market Risk” for additional information.

We are subject to credit risk that a borrower or other counterparty may not be able to meet its contractual obligations in accordance with agree-upon terms, which could result in significantly higher, unexpected losses.

Our loan portfolio, which represents the largest component of assets on our balance sheet, accounts for the substantial majority of exposure to credit risk. We had total loans outstanding of \$24,356 million as of May 31, 2017. We reserve for credit losses in our loan portfolio by establishing an allowance through a provision charge to earnings. The amount of the allowance for loan losses, which was \$37 million as of May 31, 2017, is based on our assessment of credit losses inherent in our loan portfolio as of each balance sheet date, taking into consideration management's continuing evaluation of credit risk related to industry concentrations; economic conditions; specific credit risks; loan loss experience; current loan portfolio quality; present economic, political and regulatory conditions; and unidentified losses and risks inherent in the current loan portfolio. We consider the process for determining the amount of the allowance as one of our critical accounting policies because it involves significant judgments and assumptions about highly complex and inherently uncertain matters, and the use of reasonably different estimates and assumptions could have a material impact on our results of operations or financial condition. Changes in economic conditions affecting borrowers, new information regarding existing loans, identification of additional problem loans and other factors, both within and outside of our control, may require an increase in the allowance for loan losses. In addition, if actual losses incurred exceed current estimates of probable losses included in the allowance for loan losses, we will need to record additional provision charges to earnings to increase the allowance for loan losses, which may have a material adverse effect on our financial results.

Our concentration of loans to borrowers within the rural electric industry could impair our revenue if that industry experiences economic difficulties.

Approximately 99% of our total outstanding loan exposure as of May 31, 2017 was to rural electric cooperatives. Factors that have a negative impact on our member rural electric cooperatives' financial results could also impair their ability to make payments on our loans. If our members' financial results materially deteriorate, we could be required to increase our allowance for loan losses through provisions for loan loss on our income statement that would reduce reported net income.

We may obtain entities or other assets through foreclosure, which would subject us to the same performance and financial risks as any other owner or operator of similar businesses or assets.

As a financial institution, from time to time we may obtain entities and assets of borrowers in default through foreclosure proceedings. If we become the owner and operator of entities or assets obtained through foreclosure, we



are subject to the same performance and financial risks as any other owner or operator of similar assets or entities. In particular, the value of the foreclosed assets or entities may deteriorate and have a negative impact on our results of operations. We assess foreclosed assets, if any, for impairment periodically as required under generally accepted accounting principles in the United States (“GAAP”). Impairment charges, if required, represent a reduction to earnings in the period of the charge. There may be substantial judgment used in the determination of whether such assets are impaired and in the calculation of the amount of the impairment. In addition, when foreclosed assets are sold to a third party, the sale price we receive may be

below the amount previously recorded in our financial statements, which will result in a loss being recorded in the period of the sale.

The nonperformance of our derivative counterparties could impair our financial results.

We use interest rate swaps to manage our interest rate risk. There is a risk that the counterparties to these agreements will not perform as agreed, which could adversely affect our results of operations. The nonperformance of a counterparty on an agreement would result in the derivative no longer being an effective risk management tool, which could negatively affect our overall interest rate risk position. In addition, if a counterparty fails to perform on our derivative obligation, we could incur a financial loss to replace the derivative with another counterparty and/or a loss through the failure of the counterparty to pay us amounts owed. We were in a net payable position, after taking into consideration master netting agreements, for all of our interest rate swaps as of May 31, 2017.

A decline in our credit rating could trigger payments under our derivative agreements, which could impair our financial results.

We have certain interest rate swaps that contain credit risk-related contingent features referred to as rating triggers. Under certain rating triggers, if the credit rating for either counterparty falls to the level specified in the agreement, the other counterparty may, but is not obligated to, terminate the agreement. If either counterparty terminates the agreement, a net payment may be due from one counterparty to the other based on the fair value, excluding credit risk, of the underlying derivative instrument. These rating triggers are based on our senior unsecured credit ratings by Moody's and S&P. Based on our interest rate swap agreements subject to rating triggers, if all agreements for which we owe amounts were terminated as of May 31, 2017 and our senior unsecured ratings fell to or below Baa1 by Moody's or to or below BBB+ by S&P, we would have been required to make a payment of up to \$246 million as of that date. In calculating the required payments, we only considered agreements that, when netted for each counterparty pursuant to a master netting agreement, would require a payment upon termination. In the event that we are required to make a payment as a result of a rating trigger, it could have a material adverse impact on our financial results.

Advances in technology may change the way electricity is generated and transmitted, which could adversely affect the business operations of our members, increase our credit risk exposure and negatively impact our financial results. Advances in technology could reduce demand for generation, transmission and distribution services. The development of alternative technologies that produce electricity, including solar cells, wind power and microturbines, has expanded and could ultimately provide affordable alternative sources of electricity and permit end users to adopt distributed generation systems that would allow them to generate electricity for their own use. As these and other technologies, including energy conservation measures, are created, developed and improved, the quantity and frequency of electricity usage by rural customers could decline. Advances in technology and conservation that cause our electric system members' power supply, transmission and/or distribution facilities to become obsolete prior to the maturity of loans secured by these assets could have an adverse impact on the ability of our members to repay such loans, which could result in an increase in nonperforming or restructured loans. These conditions could increase our credit risk exposure and negatively impact our financial results.

Breaches of our information technology systems may damage relationships with our members or subject us to reputational, financial, legal or operational consequences.

Cyber-related attacks pose a risk to the security of our members' strategic business information and the confidentiality and integrity of our data. Security breaches may occur through the actions of third parties, employee error, malfeasance, technology failures or other irregularities. Any such breach or unauthorized access could result in a loss of this information, a delay or inability to provide service of affected products, damage to our reputation, including a loss of confidence in the security of our products and services, and significant legal and financial exposure. Because the techniques used to obtain unauthorized access, disable or degrade service or sabotage systems change frequently, we may be unable to anticipate these techniques or implement adequate preventative measures. While CFC maintains insurance coverage that, subject to policy terms and conditions, covers certain aspects of cyber risks, such insurance

coverage may be insufficient to cover all losses. Data security and privacy continue to receive heightened legislative and regulatory focus in the United States. Many states have enacted legislation requiring notification to those affected by a security breach. Our failure to comply with these laws and regulations could result in fines, sanction and litigation. Additionally, new regulation in the areas of data security and privacy may increase our costs and our members' costs.

Loss of our tax-exempt status could adversely affect our earnings.

CFC has been recognized by the Internal Revenue Service as an organization for which income is exempt from federal taxation under Section 501(c)(4) of the Internal Revenue Code (other than any net income from an unrelated trade or business). In order to maintain CFC's tax-exempt status, it must continue to operate exclusively for the promotion of social welfare by operating on a cooperative basis for the benefit of its members by providing them cost-based financial products and services consistent with sound financial management, and no part of CFC's net earnings may inure to the benefit of any private shareholder or individual other than the allocation or return of net earnings or capital to its members in accordance with CFC's bylaws and incorporating statute in effect in 1996.

If CFC were to lose its status as a 501(c)(4) organization, it would become a taxable cooperative and would be required to pay income tax based on its taxable income. If this event occurred, we would evaluate all options available to modify CFC's structure and/or operations to minimize any potential tax liability.

As a tax-exempt cooperative and nonbank financial institution, our lending activities are not subject to the regulations and oversight of U.S. financial regulators such as the Federal Reserve, the Federal Deposit Insurance Corporation or the Office of Comptroller of Currency. Because we are not under the purview of such regulation, we could engage in activities that could expose us to greater credit, market and liquidity risk, reduce our safety and soundness and adversely affect our financial results.

Financial institutions subject to regulations, oversight and monitoring by U.S. financial regulators are required to maintain specified levels of capital and may be restricted from engaging in certain lending-related and other activities that could adversely affect the safety and soundness of the financial institution or are considered conflicts of interest.

As a tax-exempt, nonbank financial institution, we are not subject to the same oversight and supervision. There is no federal financial regulator that monitors compliance with our risk policies and practices or that identifies and addresses potential deficiencies that could adversely affect our financial results. Without regulatory oversight and monitoring, there is a greater potential for us to engage in activities that could pose a risk to our safety and soundness relative to regulated financial institutions.

Competition from other lenders could adversely impact our financial results.

We compete with other lenders for the portion of the rural utility loan demand for which RUS will not lend and for loans to members that have elected not to borrow from RUS. The primary competition for the non-RUS loan volume is from CoBank, ACB, a federally chartered instrumentality of the United States that is a member of the Farm Credit System. As a government-sponsored enterprise, CoBank, ACB has the benefit of an implied government guarantee with respect to its funding. Competition may limit our ability to raise rates to adequately cover increases in costs, which could have an adverse impact on our results of operations, and increasing interest rates to cover costs could cause a reduction in new lending business.

Our elected directors also serve as officers or directors of certain of our individual member cooperatives, which may result in a potential conflict of interest with respect to loans, guarantees and extensions of credit that we may make to or on behalf of such member cooperatives.

In accordance with our charter documents and the purpose for which we were formed, we lend only to our members and associates. CFC's directors are elected or appointed from our membership, with 10 director positions filled by directors of members, 10 director positions filled by general managers or chief executive officers of members, two positions appointed by NRECA and one at-large position that must, among other things, be a director, financial officer, general manager or chief executive of one of our members. CFC currently has loans outstanding to members that are affiliated with CFC directors and may periodically extend new loans to such members. The relationship of CFC's directors to our members may give rise to conflicts of interests from time to time. See "Item 13. Certain Relationships and Related Transactions, and Director Independence—Review and Approval of Transactions with Related Persons" for a description of our policies with regard to approval of loans to members affiliated with CFC directors.

Item 1B. Unresolved Staff Comments

None.

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Item 2. Properties

CFC owns approximately 141,000 square feet of office, meeting and storage space that serves as its headquarters in Loudoun County, Virginia.

Item 3. Legal Proceedings

From time to time, CFC is subject to certain legal proceedings and claims in the ordinary course of business, including litigation with borrowers related to enforcement or collection actions. Management presently believes that the ultimate outcome of these proceedings, individually and in the aggregate, will not materially harm our financial position, liquidity, or results of operations. CFC establishes reserves for specific legal matters when it determines that the likelihood of an unfavorable outcome is probable and the loss is reasonably estimable. Accordingly, no reserve has been recorded with respect to any legal proceedings at this time.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Not applicable.

## Item 6. Selected Financial Data

The following table provides a summary of consolidated selected financial data and performance metrics for the five-year period ended May 31, 2017. In addition to financial measures determined in accordance with generally accepted accounting principles in the United States (“GAAP”), management also evaluates performance based on certain non-GAAP measures and metrics, which we refer to as “adjusted” measures. Certain financial covenant provisions in our credit agreements are also based on non-GAAP financial measures. Our key non-GAAP financial measures include adjusted net income, adjusted net interest income, adjusted net interest yield, adjusted times interest earned ratio (“adjusted TIER”) and adjusted debt-to-equity ratio. The adjusted leverage ratio is a non-GAAP measure included as a covenant in our committed bank revolving line of credit agreements. The most comparable GAAP measures are net income, net interest income, net interest yield, TIER, debt-to-equity ratio and leverage ratio, respectively. The primary adjustments we make to calculate these non-GAAP measures consist of (i) adjusting interest expense and net interest income to include the impact of net periodic derivative cash settlements; (ii) adjusting net income, senior debt and total equity to exclude the non-cash impact of the accounting for derivative financial instruments; (iii) adjusting senior debt to exclude the amount that funds CFC member loans guaranteed by RUS, subordinated deferrable debt and members’ subordinated certificates; and (iv) adjusting total equity to include subordinated deferrable debt and members’ subordinated certificates. We believe our non-GAAP adjusted measures, which are not a substitute for GAAP and may not be consistent with similarly titled non-GAAP measures used by other companies, provide meaningful information and are useful to investors because management evaluates performance based on these metrics, and the financial covenants in our committed bank revolving line of credit agreements and debt indentures are based on adjusted TIER and adjusted leverage ratios. See “Non-GAAP Financial Measures” for a detailed reconciliation of these adjusted measures to the most comparable GAAP measures.

## Five-Year Summary of Selected Financial Data

(Dollars in thousands)	Year Ended May 31,					Increase/(Decrease)	
	2017	2016	2015	2014	2013	2017 vs. 2016	2016 vs. 2015
<b>Statement of operations</b>							
Interest income	\$1,036,634	\$1,012,636	\$952,976	\$957,540	\$955,753	2%	6%
Interest expense	(741,738 )	(681,850 )	(635,684 )	(654,655 )	(692,025 )	9	7
Net interest income	294,896	330,786	317,292	302,885	263,728	(11)	4
Fee and other income	19,713	21,785	36,783	17,762	38,181	(10)	(41)
Total net revenue	314,609	352,571	354,075	320,647	301,909	(11)	0
Benefit (provision) for loan losses	(5,978 )	646	21,954	(3,498 )	70,091	**	(97)
Derivative gains (losses) <sup>(1)</sup>	94,903	(309,841 )	(196,999 )	(34,421 )	84,843	**	57
Results of operations of foreclosed assets	(1,749 )	(6,899 )	(120,148 )	(13,494 )	(897 )	(75)	(94)
Operating expenses <sup>(2)</sup>	(86,226 )	(86,343 )	(76,530 )	(72,566 )	(84,182 )	0	13
Other non-interest expense	(1,756 )	(1,593 )	(870 )	(1,738 )	(10,928 )	10	83
Income (loss) before income taxes	313,803	(51,459 )	(18,518 )	194,930	360,836	**	178
Income tax expense	(1,704 )	(57 )	(409 )	(2,004 )	(2,749 )	2,889	(86)
Net income (loss)	\$312,099	\$(51,516 )	\$(18,927 )	\$192,926	\$358,087	**	172
<b>Adjusted operational financial measures</b>							
Adjusted interest expense <sup>(3)</sup>	\$(826,216 )	\$(770,608 )	\$(718,590 )	\$(728,617 )	\$(748,486 )	7%	7%
Adjusted net interest income <sup>(3)</sup>	210,418	242,028	234,386	228,923	207,267	(13)	3

Adjusted net income <sup>(3)</sup>	132,718	169,567	95,166	153,385	216,783	(22)	78
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(Dollars in thousands)	May 31,					Increase/(Decrease)	
	2017	2016	2015	2014	2013	2017 vs. 2016	2016 vs. 2015
<b>Balance sheet</b>							
Cash, investments and time deposits	\$485,169	\$632,480	\$818,308	\$943,892	\$908,694	(23)%	(23)%
Loans to members <sup>(4)</sup>	24,367,044	23,162,696	21,469,017	20,476,642	20,305,874	5	8
Allowance for loan losses	(37,376 )	(33,258 )	(33,690 )	(56,429 )	(54,325 )	12	(1)
Loans to members, net	24,329,668	23,129,438	21,435,327	20,420,213	20,251,549	5	8
Total assets	25,205,692	24,270,200	22,846,059	22,190,685	22,032,702	4	6
Short-term borrowings	3,342,900	2,938,848	3,127,754	4,099,331	4,557,434	14	(6)
Long-term debt	17,955,594	17,473,603	16,244,794	14,475,635	13,787,254	3	8
Subordinated deferrable debt	742,274	742,212	395,699	395,627	395,729	0	88
Members' subordinated certificates	1,419,025	1,443,810	1,505,420	1,612,191	1,765,776	(2)	(4)
Total debt outstanding	23,459,793	22,598,473	21,273,667	20,582,784	20,506,193	4	6
Total liabilities	24,106,887	23,452,822	21,934,273	21,220,311	21,221,441	3	7
Total equity	1,098,805	817,378	911,786	970,374	811,261	34	(10)
Guarantees <sup>(5)</sup>	889,617	909,208	986,500	1,064,822	1,112,771	(2)	(8)
<b>Selected ratios<sup>(6)</sup></b>							
Fixed-charge coverage ratio/TIER <sup>(7)</sup>	1.42	0.92	0.97	1.29	1.52	50 bps	(5) bps
Adjusted TIER <sup>(3)</sup>	1.16	1.22	1.13	1.21	1.29	(6)	9
Net interest yield <sup>(8)</sup>	1.20	1.43	1.47	1.42	1.31	(23)	(4)
Adjusted net interest yield <sup>(9)</sup>	0.86	1.05	1.08	1.07	1.03	(19)	(3)
Net charge-off (recovery) rate <sup>(10)</sup>	0.01	0.00	0.00	0.01	0.10	1	0
Allowance coverage ratio <sup>(11)</sup>	0.15	0.14	0.16	0.28	0.27	1	(2)
Leverage ratio <sup>(12)</sup>	22.75	29.81	25.14	22.97	27.53	(706)	467
Adjusted leverage ratio <sup>(3)</sup>	6.19	6.08	6.58	6.24	6.11	11	(50)
Debt-to-equity ratio <sup>(13)</sup>	21.94	28.69	24.06	21.87	26.16	(675)	463
Adjusted debt-to-equity ratio <sup>(3)</sup>	5.95	5.82	6.26	5.90	5.76	13	(44)

\*\*Change is not meaningful.

<sup>(1)</sup>Consists of derivative cash settlements and derivative forward value gains (losses). Derivative cash settlement amounts represent net periodic contractual interest accruals related to derivatives not designated for hedge accounting. Derivative forward value gains (losses) represent changes in fair value during the period, excluding net periodic contractual interest accruals, related to derivatives not designated for hedge accounting and expense amounts reclassified into income related to the cumulative transition loss recorded in accumulated other comprehensive income as of June 1, 2001, as a result of the adoption of the derivative accounting guidance that required derivatives to be reported at fair value on the balance sheet.

<sup>(2)</sup>Consists of the salaries and employee benefits and the other general and administrative expenses components of non-interest expense, each of which are presented separately on our consolidated statements of operations.

<sup>(3)</sup>See "Non-GAAP Financial Measures" for details on the calculation of these non-GAAP adjusted measures and the reconciliation to the most comparable GAAP measures.

<sup>(4)</sup>Consists of the outstanding principal balance of member loans plus unamortized deferred loan origination costs, which totaled \$11 million as of May 31, 2017, and \$10 million as of May 31, 2016, 2015, 2014, and 2013.

<sup>(5)</sup>Reflects the total amount of member obligations for which CFC has guaranteed payment to a third party as of the end of each period. This amount represents our maximum exposure to loss, which significantly exceeds the guarantee

liability recorded on our consolidated balance sheets as the guarantee liability is determined based on anticipated losses. See “Note 13—Guarantees” for additional information.

(6) Selected metrics and ratios represent percentage amounts.

(7) Calculated based on net income (loss) plus interest expense for the period divided by interest expense for the period. The fixed-charge coverage ratios and TIER were the same during each period presented because we did not have any capitalized interest during these periods.

(8) Calculated based on net interest income for the period divided by average interest-earning assets for the period.

(9) Calculated based on adjusted net interest income for the period divided by average interest-earning assets for the period.

(10) Calculated based on net charge-offs (recoveries) for the period divided by average total outstanding loans for the period.

(11) Calculated based on the allowance for loan losses at period end divided by total outstanding loans at period end.

(12) Calculated based on total liabilities and guarantees at period end divided by total equity at period end.

(13) Calculated based on total liabilities at period end divided by total equity at period end.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A")

INTRODUCTION

Our financial statements include the consolidated accounts of National Rural Utilities Cooperative Finance Corporation ("CFC"), National Cooperative Services Corporation ("NCSC") and Rural Telephone Finance Cooperative ("RTFC"), and subsidiaries created and controlled by CFC to hold foreclosed assets. See "Item 1. Business—Overview" for information on the business activities of each of these entities. Unless stated otherwise, references to "we," "our" or "us" relate to CFC and its consolidated entities. All references to members within this document include members, associates and affiliates of CFC and its consolidated entities.

Management monitors a variety of key indicators to evaluate our business performance. In addition to financial measures determined in accordance with GAAP, management also evaluates performance based on certain non-GAAP measures, which we refer to as "adjusted" measures. We identify our non-GAAP adjusted measures in "Item 6. Selected Financial Data," and provide a reconciliation to the most comparable GAAP measures below under "Non-GAAP Financial Measures."

The following MD&A is intended to provide the reader with an understanding of our results of operations, financial condition and liquidity by discussing the drivers of changes from period to period and the key measures used by management to evaluate performance, such as net interest income, net interest yield, loan growth, debt-to-equity ratio and credit quality metrics. MD&A is provided as a supplement to, and should be read in conjunction with, our audited consolidated financial statements and related notes in this Annual Report on Form 10-K for the fiscal year ended May 31, 2017 ("2017 Form 10-K") and the information contained elsewhere in this Report, including the risk factors discussed under "Part I—Item 1A. Risk Factors."

EXECUTIVE SUMMARY

Our primary objective as a member-owned cooperative lender is to provide cost-based financial products to our rural electric members while maintaining a sound financial position required for investment-grade credit ratings on our debt instruments. Our objective is not to maximize net income; therefore, the rates we charge our member-borrowers reflect our adjusted interest expense plus a spread to cover our operating expenses, a provision for loan losses and earnings sufficient to achieve interest coverage to meet our financial objectives. Our goal is to earn an annual minimum adjusted TIER of 1.10 and to maintain an adjusted debt-to-equity ratio at approximately or below 6.00-to-1.

We are subject to period-to-period volatility in our reported GAAP results due to changes in market conditions and differences in the way our financial assets and liabilities are accounted for under GAAP. Our financial assets and liabilities expose us to interest-rate risk. We use derivatives, primarily interest rate swaps, as part of our strategy in managing this risk. Our derivatives are intended to economically hedge and manage the interest-rate sensitivity mismatch between our financial assets and liabilities. We are required under GAAP to carry derivatives at fair value on our consolidated balance sheet; however, the financial assets and liabilities for which we use derivatives to economically hedge are carried at amortized cost. Changes in interest rates and spreads result in periodic fluctuations in the fair value of our derivatives, which may cause volatility in our earnings because we do not apply hedge accounting. As a result, the mark-to-market changes in our derivatives are recorded in earnings. Based on the composition of our derivatives, we generally record derivative losses in earnings when interest rates decline and derivative gains when interest rates rise. This earnings volatility generally is not indicative of the underlying economics of our business, as the derivative forward fair value gains or losses recorded each period may or may not be realized over time, depending on the terms of our derivative instruments and future changes in market conditions that impact actual derivative cash settlement amounts. As such, management uses our adjusted non-GAAP results, which include realized net periodic derivative settlements but exclude the impact of unrealized derivative forward fair

value gains and losses, to evaluate our operating performance. Because derivative forward fair value gains and losses do not impact our cash flows, liquidity or ability to service our debt costs, our financial debt covenants are also based on our non-GAAP adjusted results.

## Financial Performance

### Reported Results

We reported net income of \$312 million and a TIER of 1.42 for fiscal year ended May 31, 2017 (“fiscal year 2017”), compared with a net loss of \$52 million and a TIER of 0.92 for fiscal year 2016, and a net loss of \$19 million and a TIER of 0.97 for fiscal year 2015. Our debt-to-equity ratio decreased to 21.94 as of May 31, 2017, from 28.69 as of May 31, 2016, largely attributable to an increase in equity resulting from our reported net income of \$312 million for fiscal year 2017, which was partially offset by patronage capital retirements totaling \$43 million.

The variance of \$364 million between our reported net income of \$312 million in fiscal year 2017 and the net loss of \$52 million reported for the prior year was primarily driven by mark-to-market changes in the fair value of our derivatives. We recognized derivative gains of \$95 million in fiscal year 2017, largely due to an overall increase in interest rates during the year. In contrast, we recognized derivative losses of \$310 million in the prior fiscal year attributable to a decline in longer-term interest rates and flattening of the swap yield curve. The favorable impact of the shift of \$405 million to derivative gains in fiscal year 2017 from derivative losses in the prior fiscal year was partially offset by a reduction in net interest income of \$36 million, resulting from a decrease in the net interest yield of 23 basis points to 1.20%, which was partially offset by an increase in average interest-earning assets of \$1,439 million, or 6%.

The increase of \$33 million in our reported net loss of \$52 million in fiscal year 2016 from the net loss of \$19 million in fiscal year 2015 was driven by the significant increase in derivative losses of \$113 million, attributable to the flattening of the swap yield curve, coupled with a reduction of \$21 million in the benefit recorded for loan losses, a decrease in fee and other income of \$15 million and an increase in operating expenses of \$10 million, which together more than offset the favorable impact of the absence of an impairment charge related to Caribbean Asset Holdings, LLC (“CAH”) of \$111 million recorded in fiscal year 2015 and an increase in net interest income of \$13 million.

### Adjusted Non-GAAP Results

Our adjusted net income totaled \$133 million and our adjusted TIER was 1.16 for fiscal year 2017, compared with adjusted net income of \$170 million and adjusted TIER of 1.22 for fiscal year 2016, and adjusted net income of \$95 million and adjusted TIER of 1.13 for fiscal year 2015. Our adjusted debt-to-equity ratio increased to 5.95 as of May 31, 2017, from 5.82 as of May 31, 2016, largely due to an increase in debt outstanding to fund asset growth.

The decrease in adjusted net income of \$37 million in fiscal year 2017 from the prior fiscal year was primarily driven by a decrease in adjusted net interest income of \$32 million, resulting from a reduction in the adjusted interest yield of 19 basis points to 0.86%, which was partially offset by the increase in average interest-earning assets of 6% noted above.

The increase in adjusted net income of \$74 million in fiscal year 2016 from the prior fiscal year was driven by the absence of the CAH impairment charge of \$111 million recorded in fiscal year 2015 and an increase in adjusted net interest income of \$8 million, resulting from the growth in average interest-earning assets of \$1,501 million or 7%. The favorable impact of these items was partially offset by a reduction in the benefit recorded for loan losses, a decrease in fee and other income and higher operating expenses.

### Lending Activity

Total loans outstanding was \$24,356 million as of May 31, 2017, an increase of \$1,204 million, or 5%, from May 31, 2016. The increase was primarily due to an increase in CFC distribution and power supply loans of \$1,151 million and \$104 million, respectively, which was largely attributable to member advances for capital investments and members

refinancing with us loans made by other lenders. This increase was partially offset by a decrease in NCSC loans of \$67 million.

CFC had long-term fixed-rate loans totaling \$987 million that were scheduled to reprice during fiscal year 2017. Of this total, \$824 million repriced to a new long-term fixed rate; \$138 million repriced to a long-term variable rate; \$1 million repriced to a new rate offered as part of our loan sales program; and \$24 million was repaid in full.

## Financing Activity

Our outstanding debt volume generally increases and decreases in response to member loan demand. As outstanding loan balances increased during fiscal year 2017, our debt volume also increased. Total debt outstanding was \$23,460 million as of May 31, 2017, an increase of \$861 million, or 4%, from May 31, 2016. The increase was primarily attributable to a net increase in commercial paper outstanding of \$420 million, a net increase in collateral trust bonds of \$381 million, a net increase in notes payable under the note purchase agreements with the Federal Agricultural Mortgage Corporation (“Farmer Mac”) of \$210 million and a net increase in notes payable to the Federal Financing Bank under the Guaranteed Underwriter Program of the USDA (“Guaranteed Underwriter Program”) of \$208 million. These increases were partially offset by a net decrease in medium-term notes of \$325 million.

During fiscal year 2017, we issued \$1,250 million aggregate principal amount of collateral trust bonds, \$650 million aggregate principal amount of dealer medium-term notes and received advances of \$600 million under the Guaranteed Underwriter Program and the revolving note purchase agreements with Farmer Mac.

On December 1, 2016, we closed on a \$375 million committed loan facility (“Series L”) from the Federal Financing Bank guaranteed by RUS pursuant to the Guaranteed Underwriter Program. Under the Series L facility, we are able to borrow any time before October 15, 2019, with each advance subject to quarterly amortization and a final maturity no longer than 20 years from the advance date. As a result of this new commitment, the total for committed facilities under the Guaranteed Underwriter Program increased to \$5,798 million, with up to \$725 million available under these facilities as of May 31, 2017.

We provide additional information on our financing activities below under “Consolidated Balance Sheet Analysis—Debt” and “Liquidity Risk.”

## Sale of CAH

On July 1, 2016, the sale of CAH to ATN VI Holdings, LLC (“Buyer”) was completed. As a result, we no longer carry any foreclosed assets on our consolidated balance sheet. Our net proceeds at closing totaled \$109 million, which represents the purchase price of \$144 million less agreed-upon purchase price adjustments as of the closing date. In connection with the sale, RTFC provided a loan in the amount of \$60 million to Buyer to finance a portion of the transaction. ATN International, Inc., the parent corporation of Buyer, has provided a guarantee on an unsecured basis of Buyer’s obligations to RTFC pursuant to the financing. CFC remains subject to potential indemnification claims, as specified in the Purchase Agreement. Upon closing, \$16 million of the sale proceeds was deposited into escrow to fund potential indemnification claims for a period of 15 months following the closing. Based on indemnification claims to date, we currently expect the return of substantially all of the \$16 million held in escrow.

The net proceeds at closing were subject to post-closing adjustments. We recorded charges related to CAH of \$2 million in fiscal year 2017. This amount includes the combined impact of adjustments recorded at the closing date of the sale of CAH, post-closing purchase price adjustments and certain legal costs incurred pertaining to CAH. See “Consolidated Results of Operations—Non-Interest Income—Results of Operations of Foreclosed Assets” below in this Report and “Note 5—Foreclosed Assets” for additional information on the sale of CAH.

## Outlook for the Next 12 Months

We currently expect the amount of long-term loan advances to exceed anticipated loan repayments over the next 12 months. We expect relatively flat net interest income and adjusted net interest income over the next 12 months, reflecting a slight projected increase in average total loans, which we anticipate will be offset by a projected modest decline in the net interest yield and adjusted net interest yield.

Long-term debt scheduled to mature over the next 12 months totaled \$1,258 million as of May 31, 2017. We believe we have sufficient liquidity from the combination of existing cash and time deposits, member loan repayments, committed bank revolving lines of credit and our ability to issue debt in the capital markets, to our members and in private placements, to meet the demand for member loan advances and satisfy our obligations to repay long-term debt maturing over the next 12 months. As of May 31, 2017, we had access to liquidity reserves totaling \$6,569 million, which consisted of (i) \$393 million in cash and cash equivalents and time deposits, (ii) up to \$725 million available under committed loan facilities under the



Guaranteed Underwriter Program, (iii) up to \$3,164 million available under committed bank revolving line of credit agreements, (iv) up to \$300 million available under a committed revolving note purchase agreement with Farmer Mac, and (v) up to \$1,987 million available under a revolving note purchase agreement with Farmer Mac, subject to market conditions.

We believe we can continue to roll over the outstanding member short-term debt of \$2,343 million as of May 31, 2017, based on our expectation that our members will continue to reinvest their excess cash in our commercial paper, daily liquidity fund select notes and medium-term notes. Although we expect to continue accessing the dealer commercial paper market to help meet our liquidity needs, we intend to manage our short-term wholesale funding risk by maintaining outstanding dealer commercial paper at an amount below \$1,250 million for the foreseeable future. We expect to continue to be in compliance with the covenants under our committed bank revolving line of credit agreements, which will allow us to mitigate our roll-over risk as we can draw on these facilities to repay dealer or member commercial paper that cannot be rolled over.

While we are not subject to bank regulatory capital rules, we generally aim to maintain an adjusted debt-to-equity ratio at approximately or below 6.00-to-1. Our adjusted debt-to-equity ratio was 5.95 as of May 31, 2017. We expect to maintain our adjusted debt-to-equity ratio at approximately 6.00-to-1 over the next 12 months.

#### CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements in accordance with GAAP requires management to make a number of judgments, estimates and assumptions that affect the amount of assets, liabilities, income and expenses in the consolidated financial statements. Understanding our accounting policies and the extent to which we use management's judgment and estimates in applying these policies is integral to understanding our financial statements. We provide a discussion of our significant accounting policies under "Note 1—Summary of Significant Accounting Policies."

We have identified certain accounting policies as critical because they involve significant judgments and assumptions about highly complex and inherently uncertain matters, and the use of reasonably different estimates and assumptions could have a material impact on our results of operations or financial condition. Our most critical accounting policies and estimates involve the determination of the allowance for loan losses and fair value. We evaluate our critical accounting estimates and judgments required by our policies on an ongoing basis and update them as necessary based on changing conditions. There were no material changes in the assumptions used in our critical accounting policies and estimates during the current year. Management has discussed significant judgments and assumptions in applying our critical accounting policies with the Audit Committee of our board of directors. See "Item 1A. Risk Factors" for a discussion of the risks associated with management's judgments and estimates in applying our accounting policies and methods.

#### Allowance for Loan Losses

We maintain an allowance for loan losses that represents management's estimate of probable losses inherent in our loan portfolio as of each balance sheet date. Our allowance for loan losses, which totaled \$37 million and \$33 million as of May 31, 2017 and 2016, respectively, includes a collective allowance for all loans in our portfolio that are not individually impaired and a specific allowance for individually impaired loans.

#### Collective Allowance

As part of our credit risk management process, we regularly evaluate each borrower and loan in our loan portfolio and assign an internal risk rating. We engage an independent third party to perform an annual review of a sample of loans to corroborate the internally assigned risk ratings. The collective loss reserve is calculated using an internal model to

estimate incurred losses for segments within our loan portfolio that have similar risk characteristics. Our loan segments, which are based on member borrower type, are stratified further into loan pools based on the borrower risk rating. We then apply loss factors to the outstanding principal balance of each of these loan pools. The loss factors reflect the probability of default, or default rate, and the loss severity, or recovery rate, over an estimated loss emergence period of five years for each loan pool. We utilize third-party industry default data to estimate default rates. We utilize our historical loss experience for each borrower type, adjusted for management's judgment, to estimate recovery rates. Management may also apply judgment to adjust the loss factors derived from our models, taking into consideration current economic and other conditions and trends

that may affect the collectibility of our loan portfolio but are not yet reflected in our model-generated loss factors. We determine the collective allowance by applying the default rate and recovery rate to each loan pool.

### Specific Allowance

The specific allowance for individually impaired loans that are not collateral dependent is calculated based on the difference between the recorded investment in the loan and the present value of the expected future cash flows, discounted at the loan's effective interest rate. If the loan is collateral dependent, we measure the impairment based on the current fair value of the collateral less estimated selling costs. Loans are considered to be collateral dependent if repayment of the loan is expected to be provided solely by the underlying collateral and there are no other available and reliable sources of repayment.

### Key Assumptions

Determining the appropriateness of the allowance for loan losses is a complex process subject to numerous estimates and assumptions requiring significant management judgment about matters that involve a high degree of subjectivity and are difficult to predict. The key assumptions in determining our collective allowance that require significant management judgment and may have a material impact on the amount of the allowance include our evaluation of the risk profile of various loan portfolio segments and the internally assigned borrower risk ratings; the estimated loss emergence period; the selection of third-party proxy data to determine the probability of default; our historical loss experience and assumptions regarding recovery rates; and management's judgment in the selection and evaluation of qualitative factors to assess the overall current level of exposure within our loan portfolio. The key assumptions in determining our specific allowance that require significant management judgment and may have a material impact on the amount of the allowance include estimating the amount and timing of expected cash flows from impaired loans and estimating the value of underlying collateral, each of which impacts loss severity and certain cash flow assumptions. The degree to which any particular assumption affects the allowance for loan losses depends on the severity of the change and its relationship to the other assumptions.

We regularly evaluate the underlying assumptions we use in determining the allowance for loan losses and periodically update our assumptions to better reflect present conditions, including current trends in borrower risk and/or general economic trends, portfolio concentration risk, changes in risk management practices, changes in the regulatory environment and other factors specific to our loan portfolio segments. We did not change the nature of the underlying assumptions and inputs used in determining our allowance for loan losses during fiscal year 2017.

### Sensitivity Analysis

As noted above, our allowance for credit losses is sensitive to numerous factors, depending on the portfolio segment. Changes in our assumptions could affect our estimate of probable credit losses inherent in the portfolio at the balance sheet date, which would also impact the related provision for loan losses recognized in our consolidated results of operations. For example, changes in the inputs below, without consideration of any offsetting or correlated effects of other inputs, would have the following effects on our total allowance of loan losses as of May 31, 2017.

• A 10% increase or decrease in the default rates for all of our portfolio segments would result in a corresponding increase or decrease of approximately \$3 million.

• A 1% increase or decrease in the recovery rates for all of our portfolio segments would result in a corresponding decrease or increase of approximately \$4 million.

• A one-notch downgrade in the internal risk ratings for our entire loan portfolio would result in an increase of approximately \$48 million, while a one-notch upgrade would result in a decrease of approximately \$21 million.

The purpose of these sensitivity analyses is to provide an indication of the isolated impacts of hypothetical alternative assumptions on modeled loss estimates. It is difficult to estimate how potential changes in a specific factor might affect the total allowance for loan losses because management evaluates a variety of factors and inputs in estimating the allowance for loan losses.

We provide additional information on the methodology for determining the allowance for loan losses in “Note 1—Summary of Significant Accounting Policies” and changes in our allowance for loan losses in “Note 4—Loans and Commitments.”

## Fair Value

A portion of our assets and liabilities are carried at fair value on our consolidated balance sheet, with changes in fair value recorded either through earnings or other comprehensive income (loss) in accordance with applicable accounting standards. These include all available-for-sale investment securities and derivatives. The determination of fair value is important for certain other assets that are periodically evaluated for impairment using fair value, such as individually impaired loans and foreclosed assets.

Fair value is defined as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date (also referred to as an exit price). The fair value accounting guidance provides a three-level fair value hierarchy for classifying fair value measurement techniques. This hierarchy is based on the markets in which the assets or liabilities trade and whether the inputs to the valuation techniques used to measure fair value are observable or unobservable. Fair value measurement is assigned a level based on the lowest level of any input that is significant to the fair value measurement in its entirety. The three levels of the fair value hierarchy are summarized below:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities

Level 2: Observable market-based inputs, other than quoted prices in active markets for identical assets or liabilities

Level 3: Unobservable inputs

The degree of management judgment involved in determining fair value is dependent upon the availability of quoted prices in active markets or observable market parameters. When quoted prices and observable data in active markets are not fully available, management's judgment is necessary to estimate fair value. Changes in market conditions, such as reduced liquidity in the capital markets or changes in secondary market activities, may reduce the availability and reliability of quoted prices or observable data used to determine fair value.

Significant judgment may be required to determine whether certain assets and liabilities measured at fair value are classified as Level 2 or Level 3. In making this determination, we consider all available information that market participants use to measure fair value, including observable market data, indications of market liquidity and orderliness, and our understanding of the valuation techniques and significant inputs used. Based upon the specific facts and circumstances, judgments are made regarding the significance of Level 3 inputs used in determining the fair value of the asset or liability in its entirety. If Level 3 inputs are considered significant, the valuation technique is classified as Level 3. The process for determining fair value using unobservable inputs is generally more subjective and involves a high degree of management judgment and assumptions.

Assets and liabilities recorded at fair value on a recurring basis, which consisted primarily of financial instruments, including available-for-sale investment securities, deferred compensation investments and derivatives, represented 1% of our total assets as of both May 31, 2017 and 2016, and 2% and 3%, respectively, of total liabilities as of May 31, 2017 and 2016. The fair value of these financial instruments was determined using either Level 1 or 2 inputs. We did not have any financial instruments recorded at fair value on a recurring basis for which the fair value was determined using Level 3 inputs as of May 31, 2017 and 2016.

We discuss the valuation inputs and assumptions used in determining the fair value, including the extent to which we have relied on significant unobservable inputs to estimate fair value, in "Note 14—Fair Value Measurement."

## ACCOUNTING CHANGES AND DEVELOPMENTS

See "Note 1—Summary of Significant Accounting Policies" for information on accounting standards adopted in fiscal year 2017, as well as recently issued accounting standards not yet required to be adopted and the expected impact of these accounting standards. To the extent we believe the adoption of new accounting standards has had or will have a

material impact on our results of operations, financial condition or liquidity, we discuss the impact in the applicable section(s) of this MD&A.

## CONSOLIDATED RESULTS OF OPERATIONS

The section below provides a comparative discussion of our consolidated results of operations between fiscal year 2017 and 2016 and between fiscal year 2016 and 2015. Following this section, we provide a comparative analysis of our consolidated balance sheets as of May 31, 2017 and 2016. You should read these sections together with our “Executive Summary—Outlook for the Next 12 Months” where we discuss trends and other factors that we expect will affect our future results of operations.

### Net Interest Income

Net interest income represents the difference between the interest income earned on our interest-earning assets, which include loans and investment securities, and the interest expense on our interest-bearing liabilities. Our net interest yield represents the difference between the yield on our interest-earning assets and the cost of our interest-bearing liabilities plus the impact from non-interest bearing funding. We expect net interest income and our net interest yield to fluctuate based on changes in interest rates and changes in the amount and composition of our interest-earning assets and interest-bearing liabilities. We do not fund each individual loan with specific debt. Rather, we attempt to minimize costs and maximize efficiency by funding large aggregated amounts of loans.

Table 1 presents our average balance sheets for fiscal years 2017, 2016 and 2015, and for each major category of our interest-earning assets and interest-bearing liabilities, the interest income earned or interest expense incurred, and the average yield or cost. Table 1 also presents non-GAAP adjusted interest expense, adjusted net interest income and adjusted net interest yield, which reflect the inclusion of net accrued periodic derivative cash settlements in interest expense. We provide reconciliations of our non-GAAP adjusted measures to the most comparable GAAP measures under “Non-GAAP Financial Measures.”

Table 1: Average Balances, Interest Income/Interest Expense and Average Yield/Cost  
Year Ended May 31,

(Dollars in thousands)	2017		2016		2015				
Assets:	Average Balance	Interest Income/Expense	Average Yield/Cost	Average Balance	Interest Income/Expense	Average Yield/Cost	Average Balance	Interest Income/Expense	Average Yield/Cost
Long-term fixed-rate loans <sup>(1)</sup>	\$21,896,200	\$980,173	4.48%	\$20,734,387	\$959,701	4.63%	\$18,990,768	\$898,181	4.73%
Long-term variable-rate loans	799,412	19,902	2.49	708,801	19,858	2.80	702,397	20,184	2.87
Line of credit loans	1,124,471	25,389	2.26	1,031,548	24,864	2.41	1,119,647	26,411	2.36
TDR loans <sup>(2)</sup>	14,349	905	6.31	12,947	512	3.95	7,560	15	0.20
Nonperforming loans	—	—	—	3,164	142	4.49	1,572	—	—
Other income, net <sup>(3)</sup>	—	(1,082)	—	—	(1,088)	—	—	252	—
Total loans	23,834,432	1,025,287	4.30	22,490,847	1,003,989	4.46	20,821,944	945,043	4.54
Cash, investments and time deposits	734,095	11,347	1.55	639,060	8,647	1.35	806,942	7,933	0.98
Total interest-earning assets	\$24,568,527	\$1,036,634	4.22%	\$23,129,907	\$1,012,636	4.38%	\$21,628,886	\$952,976	4.41%
Other assets, less allowance for loan losses	574,682			808,479			944,746		
Total assets	\$25,143,209			\$23,938,386			\$22,573,632		
Liabilities:									
Short-term debt	\$3,185,084	\$26,684	0.84%	\$2,995,530	\$14,728	0.49%	\$3,586,509	\$14,374	0.40%
Medium-term notes	3,345,410	99,022	2.96	3,412,061	86,270	2.53	2,926,721	71,739	2.45
Collateral trust bonds	7,293,251	340,854	4.67	6,917,265	333,338	4.82	6,288,187	315,106	5.01
Long-term notes payable	7,268,158	177,929	2.45	6,818,705	165,820	2.43	5,988,964	151,763	2.53
Subordinated deferrable debt	742,203	37,657	5.07	435,488	21,245	4.88	400,000	19,143	4.79
Subordinated certificates	1,433,657	59,592	4.16	1,458,376	60,449	4.14	1,488,059	63,559	4.27
Total interest-bearing liabilities	\$23,267,763	\$741,738	3.19%	\$22,037,425	\$681,850	3.09%	\$20,678,440	\$635,684	3.07%
Other liabilities	921,749			1,036,907			954,638		
Total liabilities	24,189,512			23,074,332			21,633,078		
Total equity	953,697			864,054			940,554		
	\$25,143,209			\$23,938,386			\$22,573,632		



Total liabilities  
and equity

Net interest spread <sup>(4)</sup>		1.03 %		1.29 %		1.34 %
Impact of non-interest bearing funding <sup>(5)</sup>		0.17		0.14		0.13
Net interest income/net interest yield <sup>(6)</sup>	\$294,896	1.20 %	\$330,786	1.43 %	\$317,292	1.47 %
Adjusted net interest income/adjusted net interest yield:						
Interest income	\$1,036,634	4.22 %	\$1,012,636	4.38 %	\$952,976	4.41 %
Interest expense	741,738	3.19	681,850	3.09	635,684	3.07
Add: Net accrued periodic derivative cash settlement <sup>(7)</sup>	84,478	0.80	88,758	0.89	82,906	0.94
Adjusted interest expense/adjusted average cost <sup>(8)</sup>	\$826,216	3.55 %	\$770,608	3.50 %	\$718,590	3.48 %
Adjusted net interest spread <sup>(4)</sup>		0.67 %		0.88 %		0.93 %
Impact of non-interest bearing funding		0.19		0.17		0.15
Adjusted net interest income/adjusted net interest yield <sup>(9)</sup>	\$210,418	0.86 %	\$242,028	1.05 %	\$234,386	1.08 %

- (1) Interest income on long-term, fixed-rate loans includes loan conversion fees, which are generally deferred and recognized in interest income using the effective interest method.
- (2) Troubled debt restructuring (“TDR”) loans.
- (3) Consists of late payment fees and net amortization of deferred loan fees and loan origination costs.
- (4) Net interest spread represents the difference between the average yield on interest-earning assets and the average cost of interest-bearing funding. Adjusted net interest spread represents the difference between the average yield on interest-earning assets and the adjusted average cost of interest-bearing funding.
- (5) Includes other liabilities and equity.
- (6) Net interest yield is calculated based on net interest income for the period divided by average interest-earning assets for the period.
- (7) Represents the impact of net accrued periodic derivative cash settlements during the period, which is added to interest expense to derive non-GAAP adjusted interest expense. The average (benefit)/cost associated with derivatives is calculated based on the net accrued periodic derivative cash settlements during the period divided by the average outstanding notional amount of derivatives during the period. The average outstanding notional amount of derivatives was \$10,590 million, \$9,993 million and \$8,811 million for fiscal year 2017, 2016 and 2015, respectively.
- (8) Adjusted interest expense represents interest expense plus net accrued derivative cash settlements during the period. Net accrued derivative cash settlements are reported on our consolidated statements of operations as a component of derivative gains (losses). Adjusted average cost is calculated based on the adjusted interest expense for the period divided by the average interest-bearing funding during the period.
- (9) Adjusted net interest yield is calculated based on adjusted net interest income for the period divided by average interest-earning assets for the period.

Table 2 displays the change in our net interest income between periods and the extent to which the variance is attributable to (i) changes in the volume of our interest-earning assets and interest-bearing liabilities or (ii) changes in the interest rates of these assets and liabilities. The table also presents the change in adjusted net interest income between periods.

Table 2: Rate/Volume Analysis of Changes in Interest Income/Interest Expense

(Dollars in thousands)	2017 vs. 2016			2016 vs. 2015		
	Total Variance	Variance due to: <sup>(1)</sup>		Total Variance	Variance due to: <sup>(1)</sup>	
		Volume	Rate		Volume	Rate
<b>Interest income:</b>						
Long-term fixed-rate loans	\$20,472	\$53,775	\$(33,303)	\$61,520	\$82,466	\$(20,946)
Long-term variable-rate loans	44	2,539	(2,495 )	(326 )	184	(510 )
Line of credit loans	525	2,240	(1,715 )	(1,547 )	(2,078 )	531
Restructured loans	393	55	338	497	11	486
Nonperforming loans	(142 )	(142 )	—	142	—	142
Other income, net	6	—	6	(1,340 )	—	(1,340 )
<b>Total loans</b>	<b>21,298</b>	<b>58,467</b>	<b>(37,169 )</b>	<b>58,946</b>	<b>80,583</b>	<b>(21,637 )</b>
Cash, investments and time deposits	2,700	1,286	1,414	714	(1,650 )	2,364
<b>Interest income</b>	<b>\$23,998</b>	<b>\$59,753</b>	<b>\$(35,755)</b>	<b>\$59,660</b>	<b>\$78,933</b>	<b>\$(19,273)</b>
<b>Interest expense:</b>						
Short-term debt	\$11,956	\$932	\$11,024	\$354	\$(2,369 )	\$2,723
Medium-term notes	12,752	(1,685 )	14,437	14,531	11,897	2,634
Collateral trust bonds	7,516	18,118	(10,602 )	18,232	31,524	(13,292 )
Long-term notes payable	12,109	10,930	1,179	14,057	21,026	(6,969 )
Subordinated deferrable debt	16,412	14,963	1,449	2,102	1,698	404
Subordinated certificates	(857 )	(1,025 )	168	(3,110 )	(1,268 )	(1,842 )
<b>Interest expense</b>	<b>59,888</b>	<b>42,233</b>	<b>17,655</b>	<b>46,166</b>	<b>62,508</b>	<b>(16,342 )</b>
<b>Net interest income</b>	<b>\$(35,890)</b>	<b>\$17,520</b>	<b>\$(53,410)</b>	<b>\$13,494</b>	<b>\$16,425</b>	<b>\$(2,931 )</b>
<b>Adjusted net interest income:</b>						
Interest income	\$23,998	\$59,753	\$(35,755)	\$59,660	\$78,933	\$(19,273)
Interest expense	59,888	42,233	17,655	46,166	62,508	(16,342 )
Net accrued periodic derivative cash settlements <sup>(2)</sup>	(4,280 )	5,304	(9,584 )	5,852	11,122	(5,270 )
Adjusted interest expense <sup>(3)</sup>	55,608	47,537	8,071	52,018	73,630	(21,612 )
<b>Adjusted net interest income</b>	<b>\$(31,610)</b>	<b>\$12,216</b>	<b>\$(43,826)</b>	<b>\$7,642</b>	<b>\$5,303</b>	<b>\$2,339</b>

<sup>(1)</sup>The changes for each category of interest income and interest expense are divided between the portion of change attributable to the variance in volume and the portion of change attributable to the variance in rate for that category. The amount attributable to the combined impact of volume and rate has been allocated to each category based on the proportionate absolute dollar amount of change for that category.

<sup>(2)</sup>For net accrued periodic derivative cash settlements, the variance due to average volume represents the change in derivative cash settlements resulting from the change in the average notional amount of derivative contracts outstanding. The variance due to average rate represents the change in derivative cash settlements resulting from the net difference between the average rate paid and the average rate received for interest rate swaps during the period.

<sup>(3)</sup> See “Non-GAAP Financial Measures” for additional information on our adjusted non-GAAP measures.

Net interest income of \$295 million for fiscal year 2017 decreased by \$36 million, or 11%, from fiscal year 2016, driven by a decrease in the net interest yield of 16% (23 basis points) to 1.20%, which was partially offset by an increase in average interest-earning assets of 6%.

▲Average Interest-Earning Assets: The increase in average interest-earning assets during fiscal year 2017 was primarily attributable to growth in average total loans of \$1,344 million, or 6%, over the prior fiscal year, as members obtained

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advances to fund capital investments and refinanced with us loans made by other lenders.

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**Net Interest Yield:** The decrease in the net interest yield in fiscal year 2017 reflects the combined impact of a decline in the average yield on interest-earning assets and an increase in our average cost of funds. The average yield on interest-earning assets declined by 16 basis points in fiscal year 2017 to 4.22%. The decrease resulted from repayments on existing long-term loans with higher weighted-average fixed rates than the weighted average fixed rates on new long-term loan advances, coupled with the repricing of higher-rate loans to lower fixed rates. Our average cost of funds increased by 10 basis points in fiscal year 2017 to 3.19%, largely due to an increase in short-term interest rates, as the 3-month London Interbank Offered Rate (“LIBOR”) increased by 52 basis points to 1.21% and the federal funds rate increased by 50 basis points to 1.00% during fiscal year 2017.

Net interest income of \$331 million in fiscal year 2016 increased by \$13 million, or 4%, from fiscal year 2015, driven by an increase in average interest-earning assets of 7%, which was partially offset by a decrease in the net interest yield of 3% (4 basis points) to 1.43%.

**Average Interest-Earning Assets:** The increase in average interest-earning assets during fiscal year 2016 was primarily attributable to growth in average total loans of \$1,669 million, or 8%, over fiscal year 2015, as members refinanced with us loans issued by other lenders and obtained advances to fund capital investments.

**Net Interest Yield:** The decrease in the net interest yield in fiscal year 2016 reflected the combined impact of a modest decline in the average yield on interest-earning assets and a slight increase in our average cost of funds. The average yield on interest-earning assets decreased by 3 basis points in fiscal year 2016 to 4.38%. The decrease was largely attributable to reduced rates on fixed-rate loans, reflecting the repricing of higher-rate loans to lower interest rates and lower interest rates on new loan originations as a result of the overall low interest rate environment. Our average cost of funds increased by 2 basis points in fiscal year 2016 to 3.09%. This increase was largely due to our decision in the third quarter of fiscal year 2015 to significantly reduce the level of outstanding dealer commercial paper, which has a much lower cost than our other funding options.

Adjusted net interest income of \$210 million in fiscal year 2017 decreased by \$32 million, or 13%, from the prior fiscal year, driven by a decrease in the adjusted net interest yield of 18% (19 basis points) to 0.86%, which was partially offset by the increase in average interest-earning assets of 6%. The decrease in the adjusted net interest yield was attributable to the combined impact of the decline in the average yield on interest-earning assets and an increase in our adjusted average cost of funds.

Adjusted net interest income of \$242 million in fiscal year 2016 increased by \$8 million, or 3%, from fiscal year 2015, driven by an increase in average interest-earning assets of 7%, which was partially offset by a decrease in the adjusted net interest yield of 3% (3 basis point) to 1.05%. The decrease in the adjusted net interest yield also reflected the combined impact of an increase in our adjusted average cost of funds resulting from actions taken in the third quarter of fiscal year 2015 to significantly reduce the level of lower-cost dealer commercial paper, coupled with the decline in the average yield on interest-earning assets.

Our adjusted net interest income and adjusted net interest yield include the impact of net accrued periodic derivative cash settlements during the year. We recorded net periodic derivative cash settlement expense of \$84 million in fiscal year 2017 compared with \$89 million and \$83 million fiscal years 2016 and 2015, respectively. See “Non-GAAP Financial Measures” for additional information on our adjusted measures.

#### Provision for Loan Losses

Our provision for loan losses in each period is primarily driven by the level of allowance that we determine is necessary for probable incurred loan losses inherent in our loan portfolio as of each balance sheet date.

We recorded a provision for loan losses of \$6 million in fiscal year 2017. In comparison, we recorded a benefit for loan losses of \$1 million and \$22 million in fiscal years 2016 and 2015, respectively. The unfavorable shift of \$7 million in the provision for loan losses in fiscal year 2017 from the prior fiscal year was primarily attributable to the increase in total loans outstanding coupled with an increase in default rates for loans with higher risk, which was partially offset by a decrease in default rates for loans with lower risk and a reduction in the specific allowance for individually impaired loans. As discussed above under “Critical Accounting Policies and Estimates,” we utilize third-party industry default data to estimate default rates for determining our allowance for loan losses.

The change in the benefit for loan losses between fiscal year 2016 and 2015 was attributable primarily to a change we made in one of the key assumptions used in determining our allowance for loan losses at the end of fiscal year 2015. Based on historical data, we increased our recovery rate assumptions effective May 31, 2015, which contributed to a \$23 million reduction in the allowance for loan losses and the benefit for loan losses of \$22 million recorded in fiscal year 2015. The increase in the recovery rates accounted for \$18 million of the \$23 million reduction in the allowance for loan losses as of May 31, 2015.

We provide additional information on our allowance for loan losses under “Credit Risk—Allowance for Loan Losses” and “Note 4—Loans and Commitments” of this Report. For information on our allowance methodology, see “Critical Accounting Policies and Estimates” and “Note 1—Summary of Significant Accounting Policies” of this Report.

#### Non-Interest Income

Non-interest income consists of fee and other income, gains and losses on derivatives not accounted for in hedge accounting relationships and results of operations of foreclosed assets.

Table 3 presents the components of non-interest income recorded in our consolidated results of operations. We recorded non-interest income of \$113 million in fiscal year 2017. In comparison, we recorded non-interest income losses of \$295 million and \$280 million in fiscal years 2016 and 2015, respectively. The variances in non-interest income between years were primarily attributable to changes in net derivative gains (losses) recognized in our consolidated statements of operations and the results of CAH, which we sold on July 1, 2016. In addition, loan prepayment fees, which are included in fee and other income, were due to large prepayment fees in fiscal year 2015.

Table 3: Non-Interest Income

(Dollars in thousands)	Year Ended May 31,		
	2017	2016	2015
Non-interest income:			
Fee and other income	\$19,713	\$21,785	\$36,783
Derivative gains (losses)	94,903	(309,841 )	(196,999 )
Results of operations of foreclosed assets	(1,749 )	(6,899 )	(120,148 )
Total non-interest income	\$112,867	\$(294,955)	\$(280,364)

#### Derivative Gains (Losses)

Our derivative instruments are an integral part of our interest rate risk management strategy. Our principal purpose in using derivatives is to manage our aggregate interest rate risk profile within prescribed risk parameters. The derivative instruments we use primarily include interest rate swaps, which we typically hold to maturity. The primary factors affecting the fair value of our derivatives and derivative gains (losses) recorded in our results of operations include changes in interest rates, the shape of the yield curve and the composition of our derivative portfolio. We generally do not designate our interest rate swaps, which currently account for all of our derivatives, for hedge accounting.

Accordingly, changes in the fair value of interest rate swaps are reported in our consolidated statements of operations under derivative gains (losses). We did not have any derivatives designated as accounting hedges during fiscal year 2017, 2016 or 2015.

We currently use two types of interest rate swap agreements: (i) we pay a fixed rate and receive a variable rate (“pay-fixed swaps”) and (ii) we pay a variable rate and receive a fixed rate (“receive-fixed swaps”). The benchmark rate for the substantial majority of the floating rate payments under our swap agreements is LIBOR. Table 4, displays the average notional amount outstanding, by swap agreement type, and the weighted-average interest rate paid and

received for derivative cash settlements during fiscal years 2017, 2016 and 2015. As indicated in Table 4, our derivative portfolio currently consists of a higher proportion of pay-fixed swaps than receive-fixed swaps; however, the profile of our derivative portfolio may change as a result of changes in market conditions and actions taken to manage our interest rate risk.



Table 4: Derivative Average Notional Amounts and Average Interest Rates

(Dollars in thousands)	Year Ended May 31,									
	2017			2016			2015			
	Average Notional Balance	Weighted-Average Rate Paid	Weighted-Average Rate Received	Average Notional Balance	Weighted-Average Rate Paid	Weighted-Average Rate Received	Average Notional Balance	Weighted-Average Rate Paid	Weighted-Average Rate Received	
Pay-fixed swaps	\$6,675,617	2.89 %	0.90 %	\$6,322,338	3.03 %	0.45 %	\$5,583,647	3.25 %	0.25 %	
Receive-fixed swaps	3,914,479	1.34	2.71	3,670,585	0.88	2.97	3,227,288	0.83	3.45	
Total	\$10,590,096	2.32 %	1.57 %	\$9,992,923	2.24 %	1.38 %	\$8,810,935	2.36 %	1.43 %	

The average remaining maturity of our pay-fixed and receive-fixed swaps was 19 years and four years, respectively, as of May 31, 2017. In comparison, the average remaining maturity of our pay-fixed and receive-fixed swaps was 18 years and three years, respectively, as of May 31, 2016 and 16 years and three years, respectively, as of May 31, 2015.

Pay-fixed swaps generally decrease in value as interest rates decline and increase in value as interest rates rise. In contrast, receive-fixed swaps generally increase in value as interest rates decline and decrease in value as interest rates rise. Because our pay-fixed and receive-fixed swaps are referenced to different maturity terms along the swap yield curve, different changes in the swap yield curve—parallel, flattening or steepening—will result in differences in the fair value of our derivatives. See “Note 14—Fair Value Measurement” for information on how we estimate the fair value of our derivative instruments. The chart below provides comparative swap yield curves as of May 31, 2017, 2016, 2015 and 2014.

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Benchmark rates obtained from Bloomberg.

We recorded derivative gains of \$95 million in fiscal year 2017, compared with derivative losses of \$310 million and \$197 million in fiscal years 2016 and 2015, respectively. Table 5 presents the components of net derivative gains (losses) recorded in our consolidated results of operations. Derivative cash settlements represent the net periodic contractual interest amount for our interest-rate swaps for the reporting period. Derivative forward value gains (losses) represent the change in fair value of our interest rate swaps during the reporting period due to changes in expected future interest rates over the remaining life of our derivative contracts.

Table 5: Derivative Gains (Losses)

(Dollars in thousands)	Year Ended May 31,		
	2017	2016	2015
Derivative gains (losses) attributable to:			
Derivative cash settlements	\$(84,478)	\$(88,758 )	\$(82,906 )
Derivative forward value gains (losses)	179,381	(221,083 )	(114,093 )
Derivative gains (losses)	\$94,903	\$(309,841)	\$(196,999)

The net derivative gains of \$95 million in fiscal year 2017 were primarily attributable to a net increase in the fair value of our swaps due to an overall increase in interest rates across the yield curve compared with the prior fiscal year end, as depicted in the May 31, 2017 swap yield curve presented in the above chart.

The net derivative losses of \$310 million in fiscal year 2016 were primarily attributable to a net decrease in the fair value of our swaps due to a flattening of the swap yield curve resulting from an increase in short-term interest rates and a decline in long-term interest rates, as depicted in the above chart of the comparative yield curves as of May 31, 2016 and 2015.

The derivative losses of \$197 million in fiscal year 2015 were primarily attributable to a flattening of the swap yield curve during the period as the overall level of interest rates on the longer end of the yield curve declined while short-term interest rates rose.

See “Note 10—Derivative Instruments and Hedging Activities” for additional information on our derivative instruments.

#### Results of Operations of Foreclosed Assets

Results of operations of foreclosed assets consist of the operating results of entities controlled by CFC that hold foreclosed assets, impairment charges related to those entities and gains or losses related to the disposition of the entities.

As discussed above in “Executive Summary,” on July 1, 2016, the sale of CAH was completed. As a result, we did not carry any foreclosed assets on our consolidated balance sheet as of May 31, 2017.

Our reported investment in CAH totaled \$103 million as of May 31, 2016, which represented the fair value less estimated cost to sell as of that date. The measurement of fair value was based on the contractual purchase price less agreed-upon purchase price adjustments and the unrecognized net loss of \$10 million recorded in accumulated other comprehensive income (“AOCI”) attributable to actuarial-related changes in CAH’s pension and other post-retirement benefit plan obligations. Upon closing of the sale of CAH, the unrecognized net loss of \$10 million recorded in AOCI as of May 31, 2016 was derecognized as an offset against the sale proceeds, which had no effect on our consolidated statement of operations when the sale was recorded in the first quarter of fiscal year 2017.

Our net proceeds at closing totaled \$109 million, which represented the purchase price of \$144 million less agreed-upon purchase price adjustments and transaction costs as of the closing date. The net proceeds at closing were subject to post-closing adjustments. We recorded charges related to CAH of \$2 million in fiscal year 2017. This amount represents the combined impact of adjustments recorded at the closing date of the sale of CAH, post-closing purchase price adjustments and certain legal costs incurred pertaining to CAH.

We recorded losses in our consolidated statement of operations related to foreclosed assets of \$7 million and \$120 million in fiscal year 2016 and 2015, respectively. The loss of \$7 million in fiscal year 2016 was attributable to impairment of our investment in CAH due to a reduction in the fair value less estimated cost to sell. The loss of \$120

million in fiscal year 2015 was driven by impairment charges of \$111 million related to CAH.

In connection with the sale, RTFC provided a loan in the amount of \$60 million to Buyer to finance a portion of the transaction. ATN International has provided a guarantee on an unsecured basis of Buyer's obligations to RTFC pursuant to the financing. CFC remains subject to potential indemnification claims, as specified in the Purchase Agreement. Upon closing, \$16 million of the sale proceeds were deposited into escrow to fund potential indemnification claims for a period of

15 months following the closing. Based on indemnification claims to date, we currently expect the return of substantially all of the \$16 million held in escrow. See “Note 5—Foreclosed Assets” for additional information on the sale of CAH.

#### Non-Interest Expense

Non-interest expense consists of salaries and employee benefit expense, general and administrative expenses, losses on early extinguishment of debt and other miscellaneous expenses. Table 6 presents the components of non-interest expense recorded in our consolidated results of operations in fiscal years 2017, 2016 and 2015.

Table 6: Non-Interest Expense

(Dollars in thousands)	Year Ended May 31,		
	2017	2016	2015
Non Interest Expense:			
Salaries and employee benefits	\$(47,769)	\$(44,590)	\$(43,845)
Other general and administrative expenses	(38,457 )	(41,753 )	(32,685 )
Gains (losses) on early extinguishment of debt	192	(333 )	(703 )
Other non-interest expense	(1,948 )	(1,260 )	(167 )
Total non-interest expense	\$(87,982)	\$(87,936)	\$(77,400)

Non-interest expense of \$88 million in fiscal year 2017 was relatively unchanged from the prior fiscal year, as an increase in salaries and employee benefits of \$3 million was largely offset by a decrease in other general and administrative expenses. Non-interest expenses increased by \$11 million in fiscal year 2016 from the prior fiscal year, primarily attributable to an increase in costs related to system infrastructure enhancements and higher legal fees.

#### Net Income (Loss) Attributable to Noncontrolling Interests

Net income (loss) attributable to noncontrolling interests represents 100% of the results of operations of NCSC and RTFC, as the members of NCSC and RTFC own or control 100% of the interest in their respective companies. The fluctuations in net income (loss) attributable to noncontrolling interests are primarily due to fluctuations in the fair value of NCSC’s derivative instruments.

We recorded net income attributable to noncontrolling interests of \$2 million in fiscal year 2017, compared with a net loss of \$2 million in fiscal year 2016 and net income of less than \$1 million in fiscal year 2015. The variance in the results of operations of noncontrolling interests was due to changes in the fair value of NCSC’s derivative instruments recognized in NCSC’s earnings.

#### CONSOLIDATED BALANCE SHEET ANALYSIS

Total assets of \$25,206 million as of May 31, 2017 increased by \$935 million, or 4%, from May 31, 2016, primarily due to growth in our loan portfolio. Total liabilities of \$24,107 million as of May 31, 2017 increased by \$654 million, or 3%, from May 31, 2016, primarily due to debt issuances to fund our loan portfolio growth. Total equity increased by \$281 million to \$1,099 million as of May 31, 2017. The increase in total equity in fiscal year 2017 was primarily attributable to our net income of \$312 million, which was partially offset by patronage capital retirements totaling \$43 million in September 2016.

Following is a discussion of changes in the major components of our assets and liabilities during fiscal year 2017. Period-end balance sheet amounts may vary from average balance sheet amounts due to liquidity and balance sheet management activities that are intended to manage liquidity requirements for the company and our customers, and our market risk exposure in accordance with our risk appetite.



## Loan Portfolio

We offer long-term fixed- and variable-rate loans and line of credit variable-rate loans. Under our long-term facilities, borrowers have the option of choosing a fixed or variable interest rate for periods of one to 35 years. When a selected fixed-rate term expires, the borrower may select either another fixed-rate term or the current variable rate or elect to repay the loan in full. We also offer a conversion option to members with long-term loan agreements, which allows borrowers to change the rate and term prior to the repricing date. Borrowers are generally charged a conversion fee when converting from a fixed to a variable rate, or a fixed rate to another fixed rate.

## Loans Outstanding

Table 7 summarizes total loans outstanding, by type and by member class, for the five-year period ended May 31, 2017.

Table 7: Loans Outstanding by Type and Member Class

(Dollars in millions)	May 31, 2017		2016		2015		2014		2013	
	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total
Loans by type: <sup>(1)</sup>										
Long-term loans:										
Long-term fixed-rate loans	\$22,137	91 %	\$21,391	93 %	\$19,722	92 %	\$18,360	89 %	\$18,108	89 %
Long-term variable-rate loans	847	3	757	3	699	3	772	4	803	4
Total long-term loans	22,984	94	22,148	96	20,421	95	19,132	93	18,911	93
Line of credit loans	1,372	6	1,005	4	1,038	5	1,335	7	1,385	7
Total loans outstanding <sup>(2)</sup>	\$24,356	100 %	\$23,153	100 %	\$21,459	100 %	\$20,467	100 %	\$20,296	100 %
Loans by member class: <sup>(1)</sup>										
CFC:										
Distribution	\$18,825	77 %	\$17,674	77 %	\$16,095	75 %	\$15,035	74 %	\$14,941	74 %
Power supply	4,505	19	4,401	19	4,181	20	4,086	20	4,008	20
Statewide and associate	58	—	55	—	65	—	68	—	71	—
CFC total <sup>(2)</sup>	23,388	96	22,130	96	20,341	95	19,189	94	19,020	94
NCSC	614	3	681	3	732	3	828	4	773	4
RTFC	354	1	342	1	386	2	450	2	503	2
Total loans outstanding <sup>(2)</sup>	\$24,356	100 %	\$23,153	100 %	\$21,459	100 %	\$20,467	100 %	\$20,296	100 %

<sup>(1)</sup> Includes TDR loans.

<sup>(2)</sup> Total loans outstanding represents the outstanding unpaid principal balance of loans. Unamortized deferred loan origination costs, which totaled \$11 million as of May 31, 2017, and \$10 million as of May 31, 2016, 2015, 2014 and 2013, are excluded from total loans outstanding. These costs, however, are included in loans to members reported on the consolidated balance sheets.

Total loans outstanding of \$24,356 million as of May 31, 2017 increased by \$1,204 million, or 5%, from May 31, 2016. The increase was primarily due to an increase in CFC distribution and power supply loans of \$1,151 million and \$104 million, respectively, which were largely attributable to member advances for capital investments and members refinancing with us loans made by other lenders. This increase was partially offset by a decrease in NCSC loans of \$67 million.

We provide additional information on our loan product types in “Item 1. Business—Loan Programs” and “Note 4—Loans and Commitments.” See “Debt—Secured Borrowings” below for information on encumbered and unencumbered loans and “Credit Risk Management” for information on the credit risk profile of our loan portfolio.

## Loan Retention Rate

Table 8 presents a comparison between the historical retention rate of CFC's long-term fixed-rate loans that repriced during the past three years and provides information on the percentage of borrowers that selected either another fixed-rate term or a variable rate. The retention rate is calculated based on the election made by the borrower at the repricing date. As indicated in Table 8, the average retention rate of CFC's repriced loans has been 97% over the most recent three fiscal years.

Table 8: Historical Retention Rate and Repricing Selection<sup>(1)</sup>

(Dollars in thousands)	May 31, 2017		2016		2015	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
Loans retained:						
Long-term fixed rate selected	\$824,415	84 %	\$1,001,118	93 %	\$991,279	81 %
Long-term variable rate selected	137,835	14	54,796	5	154,946	13
Loans repriced and sold by CFC	1,401	—	4,459	—	3,904	—
Total loans retained by CFC	963,651	98	1,060,373	98	1,150,129	94
Total loans repaid	23,675	2	17,956	2	76,380	6
Total	\$987,326	100 %	\$1,078,329	100 %	\$1,226,509	100 %

<sup>(1)</sup> Does not include NCSC and RTFC loans.

## Scheduled Loan Repayments

Table 9 displays scheduled long-term loan principal repayments as of May 31, 2017, for each of the five fiscal years subsequent to May 31, 2017 and thereafter.

Table 9: Long-Term Loan Scheduled Repayments

(Dollars in thousands)	Fixed Rate		Weighted-Average Interest Rate	Variable Rate	
	Scheduled Loan Payments			Scheduled Loan Payments	Total Scheduled Loan Payments
Fiscal year:					
2018	\$1,134,595	4.29	%	\$56,530	\$1,191,125
2019	1,109,672	4.35		77,246	1,186,918
2020	1,135,806	4.42		59,292	1,195,098
2021	1,134,674	4.46		36,322	1,170,996
2022	1,105,570	4.51		36,930	1,142,500
Thereafter	16,516,373	4.70		581,099	17,097,472
Total	\$22,136,690	4.62		\$847,419	\$22,984,109

## Debt

We utilize both short-term and long-term borrowings as part of our funding strategy and asset/liability management. We seek to maintain diversified funding sources across products, programs and markets to manage funding



concentrations and reduce our liquidity or debt roll-over risk. Our funding sources include a variety of secured and unsecured debt securities in a wide range of maturities to our members and affiliates and in the capital markets.

## Debt Product Types

We offer various short- and long-term unsecured debt securities to our members and affiliates, including commercial paper, select notes, daily liquidity fund notes, medium-term notes and subordinated certificates. We issue collateral trust bonds and medium-term notes in the capital markets and also offer investments in commercial paper to member affiliates. Additionally, we have access to borrowings from banks, private placements and U.S. government agencies. Table 10 displays our primary debt product types and selected key attributes for each product type.

Table 10: Debt Product Types

Debt-Product Type:	Maturity Range	Market	Secured/Unsecured
Short-term funding programs:			
Commercial paper	1 to 270 days	Capital markets, members and affiliates	Unsecured
Select notes	30 to 270 days	Members and affiliates	Unsecured
Daily liquidity fund notes	Demand note	Members and affiliates	Unsecured
Other funding programs:			
Revolving credit agreements	3 to 5 years	Bank institutions	Unsecured
Collateral trust bonds <sup>(1)</sup>	Up to 30 years	Capital markets	Secured
Guaranteed Underwriter Program notes payable <sup>(2)</sup>	Up to 20 years	U.S. government	Secured
Farmer Mac notes payable <sup>(3)</sup>	Up to 16 years	Private placement	Secured
Medium-term notes	9 months to 30 years	Capital markets, members and affiliates	Unsecured
Other notes payable <sup>(4)</sup>	Up to 30 years	Private placement	Both
Subordinated deferrable debt <sup>(5)</sup>	Up to 30 years	Capital markets	Unsecured
Members' subordinated certificates <sup>(6)</sup>	Up to 100 years	Members	Unsecured

<sup>(1)</sup>Collateral trust bonds are secured by the pledge of permitted investments and eligible mortgage notes from distribution system borrowers in an amount at least equal to the outstanding principal amount of collateral trust bonds.

<sup>(2)</sup> Represents notes payable under the Guaranteed Underwriter Program, which supports the Rural Economic Development Loan and Grant program. The Federal Financing Bank provides the financing for these notes, and RUS provides a guarantee of repayment. We are required to pledge eligible mortgage notes from distribution and power supply system borrowers in an amount at least equal to the outstanding principal amount of the notes payable.

<sup>(3)</sup> We are required to pledge eligible mortgage notes from distribution and power supply system borrowers in an amount at least equal to the outstanding principal amount under note purchase agreements with Farmer Mac.

<sup>(4)</sup> Other notes payable consist of unsecured and secured Clean Renewable Energy Bonds and unsecured notes payable issued by NCSC. We are required to pledge eligible mortgage notes from distribution and power supply system borrowers in an amount at least equal to the outstanding principal amount under the Clean Renewable Energy Bonds Series 2009A note purchase agreement.

<sup>(5)</sup> Subordinated deferrable debt is subordinate and junior to senior debt and debt obligations we guarantee, but senior to subordinated certificates. We have the right at any time, and from time to time, during the term of the subordinated deferrable debt to suspend interest payments for a maximum period of 20 consecutive quarters. To date, we have not exercised our option to suspend interest payments. We have the right to call the subordinated deferrable debt, at par, any time after 10 years.

<sup>(6)</sup> Members' subordinated certificates consist of membership subordinated certificates, loan and guarantee certificates and member capital securities, and are subordinated and junior to senior debt, subordinated debt and debt obligations we guarantee. Membership subordinated certificates generally mature 100 years subsequent to issuance. Loan and guarantee subordinated certificates have the same maturity as the related long-term loan. Some certificates also may amortize annually based on the outstanding loan balance. Member capital securities generally mature 30 years or 35

years subsequent to issuance. Member capital securities are callable at par beginning five or 10 years subsequent to the issuance and anytime thereafter.

#### Debt Outstanding

Table 11 displays the composition, by product type, of our outstanding debt and the weighted average interest rate as of May 31, 2017, 2016 and 2015. Table 11 also displays the composition of our debt based on several additional selected attributes.

Table 11: Total Debt Outstanding and Weighted-Average Interest Rates

(Dollars in thousands)	May 31, 2017		2016		2015		Weighted-	
	Outstanding Amount	Weighted- Average Interest Rate	Outstanding Amount	Weighted- Average Interest Rate	Outstanding Amount	Weighted- Average Interest Rate	Outstanding Amount	Weighted- Average Interest Rate
Debt product type:								
Commercial paper:								
Members, at par	\$928,158	0.95 %	\$848,007	0.45 %	\$736,162	0.15 %		
Dealer, net of discounts	999,691	0.93	659,935	0.43	984,954	0.15		
Total commercial paper	1,927,849	0.94	1,507,942	0.44	1,721,116	0.15		
Select notes to members	696,889	1.12	701,849	0.62	671,635	0.29		
Daily liquidity fund notes to members	527,990	0.80	525,959	0.34	509,131	0.08		
Collateral trust bonds	7,634,048	4.08	7,253,096	4.28	6,755,067	4.48		
Guaranteed Underwriter Program notes payable	4,985,484	2.83	4,777,111	2.98	4,406,465	3.14		
Farmer Mac notes payable	2,513,389	1.71	2,303,123	1.15	1,910,688	0.77		
Medium-term notes:								
Members, at par	612,951	1.97	654,058	1.66	618,170	1.15		
Dealer, net of discounts	2,364,671	3.48	2,648,369	3.02	2,733,853	2.55		
Total medium-term notes	2,977,622	3.17	3,302,427	2.75	3,352,023	2.29		
Other notes payable	35,223	3.55	40,944	3.61	46,423	3.67		
Subordinated deferrable debt	742,274	4.98	742,212	4.98	395,699	4.75		
Members' subordinated certificates:								
Membership subordinated certificates	630,098	4.94	630,063	4.94	645,035	4.89		
Loan and guarantee subordinated certificates	567,830	3.02	593,701	2.99	640,889	2.94		
Member capital securities	221,097	5.00	220,046	5.00	219,496	5.00		
Total members' subordinated certificates	1,419,025	4.18	1,443,810	4.14	1,505,420	4.08		
Total debt outstanding	\$23,459,793	3.07 %	\$22,598,473	3.03 %	\$21,273,667	2.93 %		
Security type:								
Unsecured debt	35	%	37	%	59	%		
Secured debt	65		63		41			
Total	100	%	100	%	100	%		
Borrower type:								
Members	18	%	18	%	19	%		
Private placement:								
Guaranteed Underwriter Program notes payable	21	%	21		21			
Farmer Mac notes payable	11	%	10		9			
Other	—	%	1		—			
Total private placement	32		32		30			
Capital markets	50		50		51			
Total	100	%	100	%	100	%		

Interest rate type:

Fixed rate	74	%	74	%	72	%
Variable rate	26		26		28	
Total	100	%	100	%	100	%

Interest rate type including impact of interest-rate swaps:

Fixed rate <sup>(1)</sup>	87	%	88	%	81	%
Variable rate <sup>(2)</sup>	13		12		19	
Total	100	%	100	%	100	%

Maturity classification:<sup>(3)</sup>

Short-term borrowings	14	%	13	%	15	%
Long-term and subordinated debt <sup>(4)</sup>	86		87		85	
Total	100	%	100	%	100	%

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(1) Includes variable-rate debt that has been swapped to a fixed rate net of any fixed-rate debt that has been swapped to a variable rate.

(2) Includes fixed-rate debt that has been swapped to a variable rate net of any variable-rate debt that has been swapped to a fixed rate. Also includes commercial paper notes, which generally have maturities of less than 90 days. The interest rate on commercial paper notes does not change once the note has been issued; however, the rates on new commercial paper notes change daily.

(3) Borrowings with an original contractual maturity of one year or less are classified as short-term borrowings. Borrowings with an original contractual maturity of greater than one year are classified as long-term debt.

(4) Consists of long-term debt, subordinated deferrable debt and total members' subordinated debt reported on the consolidated balance sheets. Maturity classification is based on the original contractual maturity as of the date of issuance of the debt.

Our outstanding debt volume generally increases and decreases in response to member loan demand. As total outstanding loans increased during the year ended May 31, 2017, our debt volume also increased. Total debt outstanding of \$23,460 million as of May 31, 2017 increased \$861 million, or 4%, from May 31, 2016. The increase was primarily attributable to a net increase in commercial paper outstanding of \$420 million, net increase in collateral trust bonds of \$381 million, a net increase in notes payable under the note purchase agreements with Farmer Mac of \$210 million and a net increase in notes payable under the Guaranteed Underwriter Program of \$208 million. These increases were partially offset by a net decrease in medium-term notes of \$325 million.

Significant financing-related developments during fiscal year 2017 are summarized below.

- On August 30, 2016, we received an advance of \$100 million at an effective rate of 2.30%, with a maturity date of 2036, under the Guaranteed Underwriter Program.
- On November 1, 2016, we issued \$300 million aggregate principal amount of 1.50% dealer medium-term notes with a maturity date of 2019.
- On November 18, 2016, we amended and restated the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 19, 2019 and November 19, 2021, respectively, and to terminate certain third-party bank commitments. See "Note 6—Short-Term Borrowings" for additional information.
- On December 1, 2016, we closed a \$375 million Series L committed loan facility from the Federal Financing Bank guaranteed by RUS pursuant to the Guaranteed Underwriter Program.
- On February 7, 2017, we issued \$450 million aggregate principal amount of 2.95% collateral trust bonds with a maturity date of 2024.
- On February 22, 2017, we received an advance of \$150 million at an effective rate of 3.01%, with a maturity date of 2037, under the Guaranteed Underwriter Program.
- On February 22, 2017, we received an advance of \$250 million, at a variable rate of 3-month LIBOR plus 84 basis points, with a 30-year final maturity, under the \$4,500 million revolving note purchase agreement with Farmer Mac. We also received an additional advance of \$100 million, at a variable rate of 1-month LIBOR plus 25 basis points, with a maturity of 17 months, under the \$300 million committed revolving note purchase agreement with Farmer Mac. The \$100 million advance was repaid in full during the fourth quarter of fiscal year 2017.
- On April 11, 2017, we issued \$350 million aggregate principal amount of dealer medium-term notes at 3-month LIBOR plus 20 basis points with a maturity date of 2019.
- On April 25, 2017, we issued \$450 million aggregate principal amount of 2.40% collateral trust bonds with a maturity date of 2022 and \$350 million aggregate principal amount of 3.05% collateral trust bonds with a maturity date of 2027.

#### Member Investments

Debt securities issued to our members represent an important, stable source of funding. Table 12 displays outstanding member debt, by debt product type, as of May 31, 2017 and 2016.

Table 12: Member Investments

(Dollars in thousands)	May 31, 2017	2016		Increase/(Decrease)
	Amount	% of Total (1)	Amount	
Commercial paper	\$928,158	48 %	\$848,007	56 % \$ 80,151
Select notes	696,889	100	701,849	100 (4,960 )
Daily liquidity fund notes	527,990	100	525,959	100 2,031
Medium-term notes	612,951	20	654,058	20 (41,107 )
Members' subordinated certificates	1,419,025	100	1,443,810	100 (24,785 )
Total	\$4,185,013		\$4,173,683	\$ 11,330
Percentage of total debt outstanding	18	%	18	%

(1) Represents the percentage of each line item outstanding to our members.

Member investments accounted for 18% of total debt outstanding as of both May 31, 2017 and 2016. Over the last three fiscal years, outstanding member investments have averaged, on a quarterly basis, \$4,196 million.

#### Short-Term Borrowings

Short-term borrowings consist of borrowings with an original contractual maturity of one year or less and do not include the current portion of long-term debt. Short-term borrowings totaled \$3,343 million and accounted for 14% of total debt outstanding as of May 31, 2017, compared with \$2,939 million, or 13%, of total debt outstanding as of May 31, 2016. See Table 29 under "Liquidity Risk" for the composition of our short-term borrowings.

#### Long-Term and Subordinated Debt

Long-term debt, defined as debt with an original contractual maturity term of greater than one year, primarily consists of medium-term notes, collateral trust bonds, notes payable under the Guaranteed Underwriter Program and notes payable under our note purchase agreement with Farmer Mac. Subordinated debt consists of subordinated deferrable debt and members' subordinated certificates. Our subordinated deferrable debt and members' subordinated certificates have original contractual maturity terms of greater than one year. Long-term and subordinated debt totaled \$20,117 million and accounted for 86% of total debt outstanding as of May 31, 2017, compared with \$19,660 million, or 87%, of total debt outstanding as of May 31, 2016. As discussed above, the increase in total debt outstanding, including long-term and subordinated debt, was primarily due to the issuance of debt to fund loan portfolio growth.

#### Collateral Pledged

We are required to pledge loans or other collateral in borrowing transactions under our collateral trust bond indentures, note purchase agreements with Farmer Mac and bond agreements under the Guaranteed Underwriter Program. We are required to maintain pledged collateral equal to at least 100% of the outstanding amount of borrowings. However, we typically maintain pledged collateral in excess of the required percentage to ensure that required collateral levels are maintained and to facilitate the timely execution of debt issuances by reducing or eliminating the lead time to pledge additional collateral. Under the provisions of our committed bank revolving line of credit agreements, the excess collateral that we are allowed to pledge cannot exceed 150% of the outstanding borrowings under our collateral trust bond indentures, Farmer Mac note purchase agreements or the Guaranteed Underwriter Program. In certain cases, provided that all conditions of eligibility under the different programs are



satisfied, we may withdraw excess pledged collateral or transfer collateral from one borrowing program to another to facilitate a new debt issuance.

Table 13 displays the collateral coverage ratios as of May 31, 2017 and 2016 for the debt agreements noted above that require us to pledge collateral.

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Table 13: Collateral Pledged

Debt Agreement	Requirement/Limit		Actual	
	Committed Bank Debt Revolving Indenture Line of Minimum Credit Agreements Maximum		May 31, 2017 2016	
Collateral trust bonds 1994 indenture	100 %	150 %	117 %	121 %
Collateral trust bonds 2007 indenture	100	150	115	110
Guaranteed Underwriter Program notes payable <sup>(1)</sup>	100	150	117	110
Farmer Mac notes payable	100	150	117	117
Clean Renewable Energy Bonds Series 2009A	100	150	113	115

<sup>(1)</sup> Represents notes payable under the Guaranteed Underwriter Program, which supports the Rural Economic Development Loan and Grant program. The Federal Financing Bank provides the financing for these notes, and RUS provides a guarantee of repayment. We are required to pledge collateral in an amount at least equal to the outstanding principal amount of the notes payable.

Of our total debt outstanding of \$23,460 million as of May 31, 2017, \$15,146 million, or 65%, was secured by pledged loans. In comparison, of our total debt outstanding of \$22,598 million as of May 31, 2016, \$14,348 million, or 63%, was secured by pledged loans. Table 14 displays the unpaid principal balance of loans pledged for secured debt, the excess collateral pledged and unencumbered loans as of May 31, 2017 and 2016.

Table 14: Unencumbered Loans

(Dollars in thousands)	May 31,	
	2017	2016
Total loans outstanding <sup>(1)</sup>	\$24,356,330	\$23,152,517
Less: Loans required to be pledged for secured debt <sup>(2)</sup>	(15,435,062 )	(14,643,108 )
Loans pledged in excess of requirement <sup>(2)(3)</sup>	(2,505,804 )	(1,673,404 )
Unencumbered loans	\$6,415,464	\$6,836,005
Unencumbered loans as a percentage of total loans	26	% 30 %

<sup>(1)</sup>Reflects unpaid principal balance. Excludes unamortized deferred loan origination costs of \$11 million and \$10 million as of May 31, 2017 and 2016, respectively.

<sup>(2)</sup>Reflects unpaid principal balance of pledged loans.

<sup>(3)</sup>Excludes cash collateral pledged to secure debt. If there is an event of default under most of our indentures, we can only withdraw the excess collateral if we substitute cash or permitted investments of equal value.

As displayed above in Table 14, we had excess loans pledged as collateral totaling \$2,506 million and \$1,673 million as of May 31, 2017 and 2016, respectively. We pledge loans in excess of the required amount for the following reasons:

our distribution and power supply loans are typically amortizing loans that require scheduled principal payments over the life of the loan, whereas the debt securities issued under secured indentures and agreements typically have bullet maturities;

our distribution and power supply borrowers have the option to prepay their loans; and

Individual loans may become ineligible for various reasons, some of which may be temporary.

We provide additional information on our borrowings, including the maturity profile, below in “Liquidity Risk.” We provide a more detailed description of each of our debt product types in “Note 6—Short-Term Borrowings”, “Note 7—Long-Term Debt”, “Note 8—Subordinated Deferrable Debt” and “Note 9—Members’ Subordinated Certificates.” Refer to “Note 4—Loans and Commitments—Pledging of Loans ” for additional information related to pledged collateral.

## Equity

Table 15 presents the components of total CFC equity, total equity and total members' equity as of May 31, 2017 and 2016. As displayed in Table 15, total members' equity excludes the impact of cumulative unrealized derivative forward value gains (losses) recorded in earnings.

Table 15: Equity

(Dollars in thousands)	May 31,		Change
	2017	2016	
Membership fees	\$971	\$974	\$(3 )
Educational fund	1,929	1,798	131
Total membership fees and educational fund	2,900	2,772	128
Patronage capital allocated	761,701	713,853	47,848
Members' capital reserve	630,305	587,219	43,086
Unallocated net loss:			
Prior year-end cumulative derivative forward value losses	(507,904 )	(287,077 )	(220,827 )
Current year derivative forward value gains (losses) <sup>(1)</sup>	175,379	(220,827 )	396,206
Current year-end cumulative derivative forward value losses	(332,525 )	(507,904 )	175,379
Other unallocated net loss	(5,603 )	(5,706 )	103
Unallocated net loss	(338,128 )	(513,610 )	175,482
CFC retained equity	1,056,778	790,234	266,544
Accumulated other comprehensive income	13,175	1,058	12,117
Total CFC equity	1,069,953	791,292	278,661
Noncontrolling interests	28,852	26,086	2,766
Total equity	\$1,098,805	\$817,378	\$281,427
Members' equity:			
Total CFC equity	\$1,069,953	\$791,292	\$278,661
Excludes:			
Accumulated other comprehensive income	13,175	1,058	12,117
Current year-end cumulative derivative forward value losses	(332,525 )	(507,904 )	175,379
Subtotal	(319,350 )	(506,846 )	187,496
Total members' equity	\$1,389,303	\$1,298,138	\$91,165

<sup>(1)</sup>Represents derivative forward value gains (losses) for CFC only, as total CFC equity does not include the noncontrolling interests of the variable interest entities NCSC and RTFC, which we are required to consolidate. See "Note 15—Business Segments" for the statements of operations for CFC.

Total equity increased by \$281 million during fiscal year 2017 to \$1,099 million as of May 31, 2017. The increase in total equity was primarily attributable to our net income of \$312 million for fiscal year 2017, which was partially offset by patronage capital retirements totaling \$43 million.

In July 2016, the CFC Board of Directors authorized the retirement of allocated net earnings totaling \$42 million, which represented 50% of the patronage capital amount of \$84 million allocated to members for fiscal year 2016. The \$42 million was returned to members in cash in September 2016.

In July 2017, the CFC Board of Directors authorized the allocation of fiscal year 2017 adjusted net income as follows: \$1 million to the Cooperative Educational Fund, \$43 million to the members' capital reserve and \$90 million to members in the form of patronage capital. The amount of patronage capital allocated each year by CFC's Board of

Directors is based on

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adjusted non-GAAP net income, which excludes the impact of derivative forward value gains (losses). See “Non-GAAP Financial Measures” for information on adjusted net income.

In July 2017, the CFC Board of Directors also authorized the retirement of patronage capital totaling \$45 million, which represented 50% of the fiscal year 2017 allocation. We expect to return this amount to members in cash in the second quarter of fiscal year 2018. The remaining portion of the allocated amount will be retained by CFC for 25 years under guidelines adopted by the CFC Board of Directors in June 2009.

The CFC Board of Directors is required to make annual allocations of net earnings, if any. CFC has made annual retirements of allocated net earnings in 37 of the last 38 fiscal years; however, future retirements of allocated amounts are determined based on CFC’s financial condition. The CFC Board of Directors has the authority to change the current practice for allocating and retiring net earnings at any time, subject to applicable laws. See “Item 1. Business—Allocation and Retirement of Patronage Capital” for additional information.

#### OFF-BALANCE SHEET ARRANGEMENTS

In the ordinary course of business, we engage in financial transactions that are not presented on our consolidated balance sheets, or may be recorded on our consolidated balance sheets in amounts that are different from the full contract or notional amount of the transaction. Our off-balance sheet arrangements consist primarily of guarantees of member obligations and unadvanced loan commitments intended to meet the financial needs of our members.

#### Guarantees

We provide guarantees for certain contractual obligations of our members to assist them in obtaining various forms of financing. We use the same credit policies and monitoring procedures in providing guarantees as we do for loans and commitments. If a member defaults on its obligation, we are obligated to pay required amounts pursuant to our guarantees. Meeting our guarantee obligations satisfies the underlying obligation of our member systems and prevents the exercise of remedies by the guarantee beneficiary based upon a payment default by a member. In general, the member is required to repay any amount advanced by us with accrued interest, pursuant to the documents evidencing the member’s reimbursement obligation. Table 16 displays our guarantees outstanding, by guarantee type and by company, as of May 31, 2017 and 2016.

Table 16: Guarantees Outstanding

(Dollars in thousands)	May 31, 2017	2016	Increase/ (Decrease)
Guarantee type:			
Long-term tax-exempt bonds	\$468,145	\$475,965	\$(7,820 )
Letters of credit	307,321	319,596	(12,275 )
Other guarantees	114,151	113,647	504
Total	\$889,617	\$909,208	\$(19,591 )
Company:			
CFC	\$874,920	\$892,289	\$(17,369 )
NCSC	13,123	15,345	(2,222 )
RTFC	1,574	1,574	—
Total	\$889,617	\$909,208	\$(19,591 )

We recorded a guarantee liability of \$15 million and \$17 million, as of May 31, 2017 and 2016, respectively, related to the contingent and noncontingent exposures for guarantee and liquidity obligations associated with our members’ debt. Of our total guarantee amounts, 67% and 66% as of May 31, 2017 and 2016, respectively, were secured by mortgage liens on substantially all of the system’s assets and future revenue of the borrowers.

We had outstanding letters of credit for the benefit of our members totaling \$307 million as of May 31, 2017. Of this amount, \$231 million was related to obligations for which we may be required to advance funds based on various trigger

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events specified in the letters of credit agreements. If we are required to advance funds, the member is obligated to repay the advance amount, and accrued interest, to us. The remaining \$76 million of letters of credit are intended to provide liquidity for pollution control bonds.

In addition to the letters of credit presented in Table 16, we had master letter of credit facilities in place as of May 31, 2017, under which we may be required to issue up to an additional \$60 million in letters of credit to third parties for the benefit of our members. All of our master letter of credit facilities as of May 31, 2017 were subject to material adverse change clauses at the time of issuance. Prior to issuing a letter of credit under these facilities, we confirm that there has been no material adverse change in the business or condition, financial or otherwise, of the borrower since the time the loan was approved and that the borrower is currently in compliance with the letter of credit terms and conditions.

In addition to the guarantees described in Table 16, we were the liquidity provider for long-term, variable-rate, tax-exempt bonds issued for our member cooperatives totaling \$476 million as of May 31, 2017. As liquidity provider on these tax-exempt bonds, we may be required to purchase bonds that are tendered or put by investors. Investors provide notice to the remarketing agent that they will tender or put a certain amount of bonds at the next interest rate reset date. If the remarketing agent is unable to sell such bonds to other investors by the next interest rate reset date, we have unconditionally agreed to purchase such bonds. Our obligation as liquidity provider is in the form of a letter of credit on \$76 million of the tax-exempt bonds, which is discussed above and included in Table 16 as a component of the letters of credit amount of \$307 million as of May 31, 2017. We were not required to perform as liquidity provider pursuant to these obligations during the year ended May 31, 2017. For the other \$400 million of these long-term variable-rate, tax-exempt bonds, we also provide a guarantee of payment of principal and interest, which is included in Table 16, as a component of long-term tax-exempt bonds of \$468 million as of May 31, 2017.

Table 17 presents the maturities for each of the next five fiscal years and thereafter of the notional amount of our outstanding guarantee obligations as of May 31, 2017.

Table 17: Maturities of Guarantee Obligations

(Dollars in thousands)	Outstanding Balance	Maturities of Guaranteed Obligations					
		2018	2019	2020	2021	2022	Thereafter
Guarantees	\$ 889,617	\$ 367,648	\$ 26,890	\$ 58,251	\$ 109,243	\$ 38,253	\$ 289,332

We provide additional information about our guarantee obligations in “Note 13—Guarantees.”

#### Unadvanced Loan Commitments

Unadvanced loan commitments represent approved and executed loan contracts for which funds have not been advanced to borrowers. Our line of credit commitments include both contracts that are subject to material adverse change clauses and contracts that are not subject to material adverse change clauses. Table 18 displays the amount of unadvanced loan commitments, which consist of line of credit and long-term loan commitments, as of May 31, 2017 and 2016.

Table 18: Unadvanced Loan Commitments

(Dollars in thousands)	May 31,				Increase/ (Decrease)
	2017	% of Total	2016	% of Total	
Line of credit commitments:					
Conditional <sup>(1)</sup>	\$5,170,393	41 %	\$6,248,546	47 %	\$(1,078,153)
Unconditional <sup>(2)</sup>	2,602,262	21	2,447,902	19	154,360



Total line of credit unadvanced commitments	7,772,655	62	8,696,448	66	(923,793 )
Total long-term loan unadvanced commitments <sup>(1)</sup>	4,802,319	38	4,508,562	34	293,757
Total unadvanced loan commitments	\$12,574,974	100%	\$13,205,010	100%	\$(630,036 )

<sup>(1)</sup>Represents amount related to facilities that are subject to material adverse change clauses.

<sup>(2)</sup>Represents amount related to facilities that are not subject to material adverse change clauses.

Unadvanced line of credit commitments are typically revolving facilities for periods not to exceed five years. Historically, borrowers have not drawn the full commitment amount for line of credit facilities, and we have experienced a very low utilization rate on line of credit loan facilities, regardless of whether or not a material adverse change clause exists at the time of advance. We believe this borrowing pattern is likely to continue because electric cooperatives generate a significant amount of cash from the collection of revenue from their customers and therefore generally do not need to draw down on line of credit commitments to supplement operating cash flow. In addition, the majority of the unadvanced line of credit commitments serve as a supplemental back-up liquidity to our borrowers.

Unadvanced long-term loan commitments generally expire five years from the date of the loan agreement. Borrowers historically have requested advances on commitments in multiple transactions over an extended period of time; however, they generally do not draw the full commitment amount. We also believe this borrowing pattern is likely to continue because (i) electric cooperatives generally execute loan contracts to cover multi-year work plans; as such, it is expected that advances on such loans will occur over a multi-year period; (ii) electric cooperatives generate a significant amount of cash from the collection of revenue from their customers, which provides available operating cash flows to reduce the amount of additional funding needed for capital expenditures and maintenance; and (iii) we generally do not charge our borrowers a fee on long-term unadvanced commitments.

Table 19 presents the amount of unadvanced loan commitments, by loan type, as of May 31, 2017 and the maturities of the commitment amounts for each of the next five fiscal years and thereafter.

Table 19: Notional Maturities of Unadvanced Loan Commitments

(Dollars in thousands)	Available Balance	Notional Maturities of Unadvanced Loan Commitments					
		2018	2019	2020	2021	2022	Thereafter
Line of credit	\$7,772,655	\$4,489,826	\$871,557	\$791,825	\$750,419	\$859,028	\$10,000
Long-term loans	4,802,319	584,142	1,005,835	718,393	751,150	1,717,514	25,285
Total	\$12,574,974	\$5,073,968	\$1,877,392	\$1,510,218	\$1,501,569	\$2,576,542	\$35,285

Based on our historical experience, we expect that the majority of the unadvanced loan commitments will expire without being fully drawn upon. Accordingly, the total unadvanced loan commitment amount of \$12,575 million as of May 31, 2017 is not necessarily representative of future cash funding requirements. Unadvanced loan commitments are analyzed and segregated by loan type and risk using our internal risk rating scales. We use these risk classifications, in combination with the probability of commitment usage, and any other pertinent information to estimate a reserve for unadvanced loan commitments, which we record as a liability on our consolidated balance sheets.

#### Unadvanced Loan Commitments—Conditional

The substantial majority of our line of credit commitments and all our unadvanced long-term loan commitments include material adverse change clauses. Unadvanced loan commitments subject to material adverse change clauses totaled \$9,973 million and \$10,757 million as of May 31, 2017 and 2016, respectively, and accounted for 79% and 81% of the combined total of unadvanced line of credit and long-term loan commitments as of May 31, 2017 and 2016, respectively. Prior to making advances on these facilities, we confirm that there has been no material adverse change in the borrower's business or condition, financial or otherwise, since the time the loan was approved and confirm that the borrower is currently in compliance with loan terms and conditions. In some cases, the borrower's access to the full amount of the facility is further constrained by use of proceeds restrictions, imposition of borrower-specific restrictions, or by additional conditions that must be met prior to advancing funds. Since we generally do not charge a fee for the borrower to have an unadvanced amount on a loan facility that is subject to a

material adverse change clause, our borrowers tend to request amounts in excess of their immediate estimated loan requirements.

Unadvanced Loan Commitments—Unconditional

Unadvanced loan commitments not subject to material adverse change clauses at the time of each advance consisted of unadvanced committed lines of credit totaling \$2,602 million and \$2,448 million as of May 31, 2017 and 2016, respectively.

For contracts not subject to a material adverse change clause, we are generally required to advance amounts on the committed facilities as long as the borrower is in compliance with the terms and conditions of the facility.

Loan syndications, where the pricing is set at a spread over a market index as agreed upon by all of the participating banks based on market conditions at the time of syndication, accounted for 84% of unconditional line of credit commitments as of May 31, 2017. The remaining 16% represented unconditional committed line of credit loans which under any new advance would be made at rates determined by us based on our cost, and we have the option to pass on to the borrower any cost increase related to the advance.

Table 20 presents the maturities for each of the next five fiscal years of the notional amount of unconditional committed lines of credit not subject to a material adverse change clause as of May 31, 2017.

Table 20: Maturities of Notional Amount of Unconditional Committed Lines of Credit

(Dollars in thousands)	Available Balance	Notional Maturities of Unconditional Committed Lines of Credit				
		2018	2019	2020	2021	2022
Committed lines of credit	\$2,602,262	\$300,106	\$567,270	\$548,408	\$486,900	\$699,578

## RISK MANAGEMENT

### Overview

We face a variety of risks that can significantly affect our financial performance, liquidity, reputation and ability to meet the expectations of our members, investors and other stakeholders. As a financial services company, the major categories of risk exposures inherent in our business activities include credit risk, liquidity risk, market risk and operational risk. These risk categories are summarized below.

• Credit risk is the risk that a borrower or other counterparty will be unable to meet its obligations in accordance with agreed-upon terms.

• Liquidity risk is the risk that we will be unable to fund our operations and meet our contractual obligations or that we will be unable to fund new loans to borrowers at a reasonable cost and tenor in a timely manner.

Market risk is the risk that changes in market variables, such as movements in interest rates, may adversely affect the match between the timing of the contractual maturities, re-pricing and prepayments of our financial assets and the related financial liabilities funding those assets.

Operational risk is the risk of loss resulting from inadequate or failed internal controls, processes, systems, human error or external events. Operational risk also includes compliance risk, fiduciary risk, reputational risk and litigation risk.

Effective risk management is critical to our overall operations and in achieving our primary objective of providing cost-based financial products to our rural electric members while maintaining the sound financial results required for investment-grade credit ratings on our debt instruments. Accordingly, we have a risk management framework that is intended to govern the principal risks we face in conducting our business and the aggregate amount of risk we are willing to accept, referred to as risk appetite, in the context of CFC's mission and strategic objectives and initiatives.

### Risk Management Framework

Our risk management framework consists of defined policies, procedures and risk tolerances that are intended to align with CFC's mission. The CFC Board of Directors is responsible for risk governance by approving the enterprise risk management framework and providing oversight on risk policies, risk appetite and our performance against established goals. In fulfilling its risk governance responsibility, the CFC Board of Directors receives periodic reports on business activities from management. The CFC Board of Directors reviews CFC's risk profile and management's assessment of those risks throughout the year at its periodic meetings. The board also establishes CFC's loan policies and has established a Loan

Committee of the board comprising no fewer than 10 directors that reviews the performance of the loan portfolio in accordance with those policies. For additional information about the role of the CFC Board of Directors in risk governance and oversight, see “Item 10. Directors, Executive Officers and Corporate Governance.”

Management is responsible for execution of the risk management framework, risk policy formation and daily management of the risks associated with our business. Management executes its responsibility by establishing risk management processes for identifying, measuring, assessing, managing, monitoring and reporting risks. Management and operating groups maintain policies and procedures, specific to each major risk category, to identify and measure our primary risk exposures at the transaction, obligor and portfolio levels and ensure that our exposures remain within prescribed limits. Management also is responsible for establishing and maintaining internal controls to mitigate key risks. We have a number of management-level risk oversight committees across the organization and groups within the organization that have a defined set of authorities and responsibilities specific to one or more risk types, including the Corporate Credit Committee, Credit Risk Management group, Asset Liability Committee, Investment Management Committee, Corporate Compliance group, Internal Audit group and Disclosure Committee. These risk oversight committees and groups collectively help management facilitate enterprise-wide understanding and monitoring of CFC’s risk profile and the control processes with respect to our inherent risks. Management and the risk oversight committees periodically report actual results, significant current and emerging risks, initiatives and risk management concerns to the CFC Board of Directors.

#### CREDIT RISK

Our loan portfolio, which represents the largest component of assets on our balance sheet, and guarantees account for the substantial majority of our credit risk exposure. We also engage in certain non-lending activities that may give rise to credit and counterparty settlement risk, including the purchase of investment securities and entering into derivative transactions to manage our interest rate risk. Our primary credit exposure is to rural electric cooperatives that provide essential electric services to end-users, the majority of which are residential customers. We also have a limited portfolio of loans to not-for-profit and for-profit telecommunication companies.

We manage portfolio and borrower credit risk consistent with credit policies established by the CFC Board of Directors and through credit underwriting, approval and monitoring processes and practices adopted by management. Our board-established credit policies include guidelines regarding the types of credit products we offer, limits on credit we extend to individual borrowers, approval authorities delegated to management, and use of syndications and loan sales. We maintain an internal risk rating system in which we assign a rating to each borrower and credit facility. We review and update the risk ratings at least annually. Assigned risk ratings inform our credit approval, borrower monitoring and portfolio review processes. Our Corporate Credit Committee approves individual credit actions within its own authority and together with our Credit Risk Management group, establishes standards for credit underwriting, oversees borrowers deemed to be higher risk, reviews assigned risk ratings for accuracy, and monitors the overall credit quality and performance statistics of our loan portfolio and guarantees.

#### Loan and Guarantee Portfolio Credit Risk

Below we provide information on the credit risk profile of our loan portfolio and guarantees, including security provisions, loan concentration, credit performance and our allowance for loan losses.

#### Security Provisions

Except when providing line of credit loans, we generally lend to our members on a senior secured basis. Long-term loans are generally secured on parity with other secured lenders (primarily RUS), if any, by all assets and revenue of the borrower with exceptions typical in utility mortgages. Line of credit loans are generally unsecured. In addition to the collateral pledged to secure our loans, borrowers also are required to set rates charged to customers to achieve

certain specified financial ratios. Table 21 presents, by loan type and by company, the amount and percentage of secured and unsecured loans in our loan portfolio as of May 31, 2017 and 2016. Of our total loans outstanding, 92% were secured and 8% were unsecured as of both May 31, 2017 and 2016.

Table 21 : Loan Portfolio Security Profile<sup>(1)</sup>

	May 31, 2017				
(Dollars in thousands)	Secured	% of Total	Unsecured	% of Total	Total
Loan type:					
Long-term loans:					
Long-term fixed-rate loans	\$21,503,871	97 %	\$632,819	3 %	\$22,136,690
Long-term variable-rate loans	795,326	94	52,093	6	847,419
Total long-term loans	22,299,197	97	684,912	3	22,984,109
Line of credit loans	54,258	4	1,317,963	96	1,372,221
Total loans outstanding	\$22,353,455	92	\$2,002,875	8	\$24,356,330

## Company:

CFC	\$21,591,723	92 %	\$1,796,264	8 %	\$23,387,987
NCSC	424,636	69	189,288	31	613,924
RTFC	337,096	95	17,323	5	354,419
Total loans outstanding	\$22,353,455	92	\$2,002,875	8	\$24,356,330

## May 31, 2016

(Dollars in thousands)	Secured	% of Total	Unsecured	% of Total	Total
Loan type:					
Long-term loans:					
Long-term fixed-rate loans	\$20,611,221	96 %	\$779,355	4 %	\$21,390,576
Long-term variable-rate loans	688,572	91	68,928	9	757,500
Total long-term loans	21,299,793	96	848,283	4	22,148,076
Line of credit loans	48,256	5	956,185	95	1,004,441
Total loans outstanding	\$21,348,049	92 %	\$1,804,468	8 %	\$23,152,517

## Company:

CFC	\$20,590,529	93 %	\$1,539,344	7 %	\$22,129,873
NCSC	426,824	63	253,978	37	680,802
RTFC	330,696	97	11,146	3	341,842
Total loans outstanding	\$21,348,049	92 %	\$1,804,468	8 %	\$23,152,517

<sup>(1)</sup>Excludes deferred loan origination costs of \$11 million and \$10 million as of May 31, 2017 and 2016, respectively.

As part of our strategy in managing our credit risk exposure, we entered into a long-term standby purchase commitment agreement with Farmer Mac on August 31, 2015, as amended on May 31, 2016. Under this agreement, we may designate certain loans to be covered under the commitment, as approved by Farmer Mac, and in the event any such loan later goes into payment default for at least 90 days, upon request by us, Farmer Mac must purchase such loan at par value. The outstanding principal balance of loans covered under this agreement totaled \$843 million as of May 31, 2017, compared with \$926 million as of May 31, 2016. No loans have been put to Farmer Mac for purchase pursuant to this agreement. In addition, RUS guaranteed long-term loans totaling \$167 million and \$174 million as of May 31, 2017 and 2016, respectively.



### Credit Concentration

As a tax-exempt, member-owned finance cooperative, CFC's principal purpose is to provide funding to America's rural electric utility cooperatives to assist them in acquiring, constructing and operating electric distribution, transmission and related facilities. Our consolidated membership, which represent our borrowers, totaled 1,461 members and 219 associates as of May 31, 2017. As such, we have a loan portfolio with single-industry, geographic and single-obligor concentration risk. Outstanding loans to electric utility organizations represented approximately 99% of the total outstanding loan portfolio as of May 31, 2017, unchanged from May 31, 2016. The remaining outstanding loans in our portfolio were to RTFC members, affiliates and associates in the telecommunications industry.

### Geographic Concentration

We serve electric and telecommunications members throughout the United States and its territories, including 49 states, the District of Columbia, American Samoa and Guam. Table 22 presents the number of CFC, NCSC and RTFC borrowers and the percentage of total loans outstanding by state or U.S. territory as of May 31, 2017 and 2016.

Texas had the largest concentration of outstanding loans to borrowers in any one state, with approximately 15% of total loans outstanding as of both May 31, 2017 and 2016 and also the largest concentration of borrowers, with 73 borrowers as of both May 31, 2017 and 2016. In addition to having the largest number of borrowers, Texas also had the largest concentration of power supply systems. Power supply system borrowers generally require significantly more capital than distribution and telecommunications systems. Of our 70 power supply system borrowers, 10 were located in Texas as of May 31, 2017.

Table 22: Loan Geographic Concentration

U.S. State/Territory	May 31,			2016		
	2017		%	2016		%
	Number of Loans	% of Total Outstanding		Number of Loans	% of Total Outstanding	
Texas	73	14.86	%	73	14.83	%
Georgia	44	5.77		46	5.89	
Missouri	48	5.27		50	5.28	
Colorado	26	5.27		26	5.02	
Kansas	31	4.57		33	4.31	
North Dakota	18	3.62		16	3.60	
Alaska	16	3.61		17	3.87	
Illinois	27	3.43		27	3.58	
Florida	17	3.17		16	3.00	
North Carolina	28	3.17		28	2.84	
South Carolina	23	3.12		23	3.16	
Indiana	38	3.04		41	2.81	
Kentucky	24	3.02		24	2.80	
Minnesota	54	2.98		56	3.17	
Oklahoma	26	2.95		27	2.92	
Arkansas	21	2.36		20	2.44	
Alabama	27	2.26		25	2.43	
Ohio	28	2.14		30	2.44	
Maryland	2	2.06		2	1.88	
Pennsylvania	17	2.02		17	2.25	
Iowa	39	1.90		40	2.02	
Wisconsin	24	1.68		26	1.72	
Utah	6	1.61		6	1.76	
Mississippi	18	1.56		18	1.58	
Oregon	22	1.43		22	1.52	
Virginia	18	1.42		18	1.46	
Nevada	5	1.35		5	1.47	
Washington	11	1.32		11	1.43	
Louisiana	10	1.21		10	1.29	
Wyoming	15	1.09		14	1.18	
South Dakota	32	0.93		32	0.99	
Arizona	11	0.81		11	0.59	
Montana	25	0.71		25	0.77	
Michigan	14	0.62		15	0.58	
Hawaii	2	0.60		2	0.19	
Idaho	12	0.56		13	0.57	
Delaware	3	0.48		2	0.49	
New Hampshire	1	0.37		1	0.41	
Tennessee	17	0.36		19	0.40	
New Mexico	16	0.29		16	0.27	
Massachusetts	1	0.25		—	—	
Vermont	4	0.19		4	0.19	
California	4	0.14		4	0.15	
Nebraska	16	0.13		17	0.13	

New York	6	0.12	5	0.13
New Jersey	2	0.07	2	0.07
West Virginia	2	0.06	2	0.07
Maine	3	0.04	4	0.05
District of Columbia	1	0.01	—	—
Total	928	100.00 %	941	100.00 %

## Single-Obligor Concentration

Table 23 displays the outstanding exposure of the 20 largest borrowers, by exposure type and by company, as of May 31, 2017 and 2016. The 20 largest borrowers as of May 31, 2017 consisted of 10 distribution systems, 9 power supply systems and 1 NCSC associate member. In comparison, the 20 largest borrowers as of May 31, 2016 consisted of 11 distribution systems and 9 power supply systems. The largest total outstanding exposure to a single borrower or controlled group accounted for approximately 2% of total loans and guarantees outstanding as of both May 31, 2017 and 2016.

Table 23: Credit Exposure to 20 Largest Borrowers

(Dollars in thousands)	May 31, 2017		2016		Change
	Amount	% of Total	Amount	% of Total	
By exposure type:					
Loans	\$5,749,885	23 %	\$5,638,217	23 %	\$111,668
Guarantees	354,619	1	365,457	2	(10,838 )
Total exposure to 20 largest borrowers	6,104,504	24	6,003,674	25	100,830
Less: Loans covered under Farmer Mac standby purchase commitment	(351,699 )	(1 )	(402,244 )	(2 )	50,545
Net exposure to 20 largest borrowers	\$5,752,805	23 %	\$5,601,430	23 %	\$151,375
By company:					
CFC	\$5,899,709	23 %	\$5,991,674	25 %	\$(91,965 )
NCSC	204,795	1	12,000	—	192,795
Total exposure to 20 largest borrowers	6,104,504	24	6,003,674	25	100,830
Less: Loans covered under Farmer Mac standby purchase commitment	(351,699 )	(1 )	(402,244 )	(2 )	50,545
Net exposure to 20 largest borrowers	\$5,752,805	23 %	\$5,601,430	23 %	\$151,375

## Credit Performance

As part of our credit risk management process, we monitor and evaluate each borrower and loan in our loan portfolio and assign numeric internal risk ratings based on quantitative and qualitative assessments. Our ratings are intended to align with the federal banking regulatory credit risk rating definitions of pass and criticized categories, with criticized divided between special mention, substandard and doubtful. Internal risk ratings and payment status trends are indicators, among others, of the level of credit risk in our loan portfolio.

The overall credit risk of our loan portfolio continued to remain low, as evidenced by our strong asset quality metrics, including senior secured positions on most of our loans and low levels of criticized exposure, nonaccrual loans and charge-offs. As displayed in Table 21 above, 92% of our total outstanding loans were secured as of both May 31, 2017 and 2016. As displayed in "Note 4—Loans and Commitments," 0.5% and 0.2% of the loans in our portfolio were classified as criticized as of May 31, 2017 and 2016, respectively. Below we provide information on certain additional credit quality indicators, including modified loans that are considered to be troubled debt restructurings ("TDRs"), nonperforming loans and net charge-offs.

## Troubled Debt Restructurings

We actively monitor problem loans and, from time to time, attempt to work with borrowers to manage such exposures through loan workouts or modifications that better align with the borrower's current ability to pay. A loan restructuring or modification of terms is accounted for as a TDR if, for economic or legal reasons related to the borrower's financial difficulties, a concession is granted to the borrower that we would not otherwise consider. TDR loans generally are

initially placed on nonaccrual status, although in many cases such loans were already on nonaccrual status prior to modification. Interest accrued but not collected at the date a loan is placed on nonaccrual status is reversed against earnings. These loans

may be returned to performing status and the accrual of interest resumed if the borrower performs under the modified terms for an extended period of time, and we expect the borrower to continue to perform in accordance with the modified terms. In certain limited circumstances in which a TDR loan is current at the modification date, the loan may remain on accrual status at the time of modification. Table 24 presents the carrying value of TDR loans as of the end of each of the last five fiscal years. These loans were considered individually impaired as of the end of each period presented.

Table 24: TDR Loans

(Dollars in thousands)	May 31, 2017		2016		2015		2014		2013	
	Amount	% of Total Loans	Amount	% of Total Loans	Amount	% of Total Loans	Amount	% of Total Loans	Amount	% of Total Loans
TDR loans:										
CFC	\$6,581	0.02 %	\$6,716	0.03 %	\$7,221	0.03 %	\$7,584	0.04 %	\$46,953	0.23 %
NCSC	—	—	—	—	294	—	—	—	—	—
RTFC	6,592	0.03	10,598	0.04	4,221	0.02	—	—	—	—
Total TDR loans	\$13,173	0.05 %	\$17,314	0.07 %	\$11,736	0.05 %	\$7,584	0.04 %	\$46,953	0.23 %

Performance status of TDR  
loans:

Performing TDR loans	\$13,173	0.05 %	\$13,808	0.06 %	\$11,736	0.05 %	\$7,584	0.04 %	\$46,953	0.23 %
Nonperforming TDR loans	—	—	3,506	0.01	—	—	—	—	—	—
Total TDR loans	\$13,173	0.05 %	\$17,314	0.07 %	\$11,736	0.05 %	\$7,584	0.04 %	\$46,953	0.23 %

Loans classified as performing TDR loans as of each fiscal year end were performing in accordance with the terms of their respective restructured loan agreement as of the respective reported dates. TDR loans classified as performing as of May 31, 2017 and 2016 were on accrual status as of that date. Of the TDR loans classified as performing in Table 24 above, \$12 million, \$8 million and \$8 million as of May 31, 2015, 2014 and 2013, respectively, were on nonaccrual status as of the respective year end dates.

As indicated in Table 24 above, there were no TDR loans classified as nonperforming as of May 31, 2017, 2015, 2014 or 2013. TDR loans classified as nonperforming as of May 31, 2016 were on nonaccrual status as of that date.

### Nonperforming Loans

In addition to nonperforming TDR loans, we also may have nonperforming loans that have not been modified and classified as a TDR. We classify such loans as nonperforming at the earlier of the date when we determine: (i) interest or principal payments on the loan is past due 90 days or more; (ii) as a result of court proceedings, the collection of interest or principal payments based on the original contractual terms is not expected; or (iii) the full and timely collection of interest or principal is otherwise uncertain. Once a loan is classified as nonperforming, we generally place the loan on nonaccrual status. Interest accrued but not collected at the date a loan is placed on nonaccrual status is reversed against earnings. Table 25 below presents nonperforming loans as of the end of each of the last five fiscal years. Forgone interest on nonperforming loans, including nonperforming TDR loans presented above in Table 24, was less than \$1 million in fiscal years 2017, 2016, 2015, 2014 and 2013.



Table 25: Nonperforming Loans

	May 31, 2017		2016		2015		2014		2013	
(Dollars in thousands)	Amount	% of Total Loans	Amount	% of Total Loans	Amount	% of Total Loans	Amount	% of Total Loans	Amount	% of Total Loans
Nonperforming loans:										
CFC	\$—	—%	\$—	—%	\$—	—%	\$—	—%	\$5,000	0.02%
NCSC	—	—	—	—	—	—	400	—	—	—
RTFC	—	—	—	—	—	—	1,695	0.01	10,497	0.06
Total	\$—	—%	\$—	—%	\$—	—%	\$2,095	0.01%	\$15,497	0.08%

## Net Charge-Offs

Charge-offs represent the amount of a loan that has been removed from our consolidated balance sheet when the loan is deemed uncollectible. Generally the amount of a charge-off is the recorded investment in excess of the fair value of the expected cash flows from the loan, or, if the loan is collateral dependent, the fair value of the underlying collateral securing the loan. We report charge-offs net of amounts recovered on previously charged off loans. Table 26 presents annual charge-offs, net of recoveries, and the net charge-off rate for each of the last five fiscal years.

Table 26: Net Charge-Offs (Recoveries)

(Dollars in thousands)	Year Ended May 31,				
	2017	2016	2015	2014	2013
Charge-offs:					
CFC	\$—	\$—	\$—	\$—	\$19,122
RTFC	2,119	—	999	1,606	—
Total charge-offs	2,119	—	999	1,606	19,122
Recoveries:					
CFC	(159)	(214)	(214)	(212)	(212)
RTFC	(100)	—	—	—	—
Total recoveries	(259)	(214)	(214)	(212)	(212)
Net charge-offs (recoveries)	\$1,860	\$(214)	\$785	\$1,394	\$18,910
Average total loans outstanding	\$23,834,432	\$22,490,847	\$20,821,944	\$20,412,340	\$19,396,464
Net charge-off (recovery) rate <sup>(1)</sup>	0.01	% —	% —	% 0.01	% 0.10

<sup>(1)</sup>Calculated based on net charge-offs (recoveries) for the period divided by average total outstanding loans for the period.

As displayed in Table 26, we experienced charge-offs totaling \$3 million over the last three fiscal years, all of which were in our telecommunications loan portfolio. Our annual net charge-off rate during this period was 0.01% or less. In 2013, we recorded a charge-off of \$19 million, which was attributable to a CFC electric distribution borrower. We made modifications to the terms of the loans to this borrower which resulted in a charge-off and classification of the modified loan as a TDR. The carrying value of the modified TDR loan, which is presented above in Table 24, had an outstanding balance of \$7 million as May 31, 2017. The loan is classified as performing because the borrower has performed in accordance with the terms of the restructured loan.



Although we experienced a \$19 million charge-off related to an electric distribution borrower in 2013, CFC, in its 48-year history, has experienced only 16 defaults and cumulative net charge-offs totaling \$86 million for the electric loan portfolio. Loans to electric utility cooperatives, our principal lending market, typically have a relatively low risk of default because of the business model of electric utility cooperatives. They provide essential services to end-users, the majority of which are

residential customers. They tend to operate in exclusive territories, the majority of which are in states not subject to rate regulation. As such, they have the ability to pass through cost increases to their customers without first obtaining state regulatory approval. In addition, they tend to adhere to a conservative business strategy model that has historically resulted in a relatively stable, resilient operating environment and overall strong financial performance and credit strength for the electric cooperative network. In comparison, we have had 15 defaults and cumulative net charge-offs attributable to telecommunication borrowers totaling \$427 million, the most significant of which was a charge-off of \$354 million in fiscal year 2011. This charge-off related to outstanding loans to Innovative Communications Corporation (“ICC”), a former RTFC member, and the transfer of ICC’s assets in foreclosure to CAH.

As discussed above under “Loan Concentration,” outstanding loans to electric utility cooperatives totaled \$24,002 million, or 99%, of the total outstanding loan portfolio, as of May 31, 2017, while outstanding RTFC telecommunications loans totaled \$354 million, or 1%, of the total outstanding loan portfolio, as of May 31, 2017.

#### Allowance for Loan Losses

The allowance for loan losses is determined based upon evaluation of the loan portfolio, past loss experience, specific problem loans, economic conditions and other pertinent factors that, in management’s judgment, could affect the risk of loss in the loan portfolio. We review and adjust the allowance quarterly to cover estimated probable losses in the portfolio. Management believes the allowance for loan losses is appropriate to cover estimated probable portfolio losses inherent in our loan portfolio as of each balance sheet date.

Table 27 summarizes changes in the allowance for loan losses for the past five fiscal years and a comparison of the allowance by company as of the end of each of those years.

Table 27: Allowance for Loan Losses

(Dollars in thousands)	Year Ended May 31,				
	2017	2016	2015	2014	2013
Beginning balance	\$33,258	\$33,690	\$56,429	\$54,325	\$143,326
Provision (benefit) for loan losses	5,978	(646 )	(21,954 )	3,498	(70,091 )
Net (charge-offs) recoveries	(1,860 )	214	(785 )	(1,394 )	(18,910 )
Ending balance	\$37,376	\$33,258	\$33,690	\$56,429	\$54,325
Allowance for loan losses by company:					
CFC	\$29,499	\$24,559	\$23,716	\$45,600	\$41,246
NCSC	2,910	3,134	5,441	6,547	3,921
RTFC	4,967	5,565	4,533	4,282	9,158
Total	\$37,376	\$33,258	\$33,690	\$56,429	\$54,325
Allowance coverage ratios:					
Total loans outstanding	\$24,356,330	\$23,152,517	\$21,459,220	\$20,466,925	\$20,296,317
Percentage of total loans outstanding	0.15	% 0.14	% 0.16	% 0.28	% 0.27
Percentage of total nonperforming loans outstanding	—	—	—	2,693.51	350.55
Percentage of total performing TDR loans outstanding	283.73	240.86	287.07	744.05	115.70
Percentage of total nonperforming TDR loans outstanding	—	948.60	—	—	—
Percentage of loans on nonaccrual status	—	948.60	287.07	583.00	235.37

The allowance for loan losses increased by \$4 million during fiscal year 2017 to \$37 million as of May 31, 2017, from \$33 million as of the prior fiscal year end. The allowance coverage ratio was 0.15% as of May 31, 2017, an increase from 0.14%

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as of May 31, 2016. The increase in the allowance for loan losses was primarily attributable to the increase in total loans outstanding coupled with an increase in default rates for loans with higher risk, which was partially offset by a decrease in default rates for loans with lower risk and a reduction in the specific allowance for individually impaired loans. As discussed above under “Critical Accounting Policies and Estimates,” we utilize third-party industry default data to estimate default rates for determining our allowance for loan losses.

The outstanding balance of loans in the criticized risk category increased to \$120 million, representing less than 1% of total loans outstanding, as of May 31, 2017, from \$48 million as of May 31, 2016. Loans designated as individually impaired loans totaled \$13 million and \$17 million as of May 31, 2017 and 2016, respectively, and the specific allowance for these loans was \$2 million and \$3 million, respectively.

We discuss our methodology for determining the allowance for loan losses above in “Critical Accounting Policies and Estimates” and in “Note 1—Summary of Significant Accounting Policies.” Also see “Results of Operations—Provision for Loan Losses” and “Note 4—Loans and Commitments” for additional information on our allowance for loan losses.

We also provide information on the credit quality of our loan portfolio in “Note 4—Loans and Commitments.”

### Counterparty Credit Risk

We are exposed to counterparty risk related to the performance of the parties with which we entered into financial transactions, primarily for derivative instruments and cash and time deposits that we have with various financial institutions. To mitigate this risk, we only enter into these transactions with financial institutions with investment-grade ratings. Our cash and time deposits with financial institutions generally have an original maturity of less than one year.

We manage our derivative counterparty credit risk by requiring that derivative counterparties participate in one of our committed bank revolving line of credit agreements, monitoring the overall credit worthiness of each counterparty, using counterparty-specific credit risk limits, executing master netting arrangements and diversifying our derivative transactions among multiple counterparties. Our derivative counterparties had credit ratings ranging from A1 to Baa2 by Moody’s Investors Service (“Moody’s”) and from AA- to BBB+ by S&P Global Inc. (“S&P”) as of May 31, 2017. Our largest counterparty exposure, based on the outstanding notional amount, represented approximately 23% and 25% of the total outstanding notional amount of derivatives as of May 31, 2017 and 2016, respectively.

### Credit Risk-Related Contingent Features

Our derivative contracts typically contain mutual early termination provisions, generally in the form of a credit rating trigger. Under the mutual credit rating trigger provisions, either counterparty may, but is not obligated to, terminate and settle the agreement if the credit rating of the other counterparty falls to a level specified in the agreement. If a derivative contract is terminated, the amount to be received or paid by us would be equal to the mark-to-market value, as defined in the agreement, as of the termination date.

Our senior unsecured credit ratings from Moody’s and S&P were A2 and A, respectively, as of May 31, 2017. Both Moody’s and S&P had our ratings on stable outlook as of May 31, 2017. Table 28 displays the notional amounts of our derivative contracts with rating triggers as of May 31, 2017 and the payments that would be required if the contracts were terminated as of that date because of a downgrade of our unsecured credit ratings or the counterparty’s unsecured credit ratings below A3/A-, below Baa1/BBB+ to or below Baa2/BBB, below Baa3/BBB- or to or below Ba2/BB+ by Moody’s or S&P, respectively. In calculating the payment amounts that would be required upon termination of the derivative contracts, we assumed that the amounts for each counterparty would be netted in accordance with the provisions of the counterparty’s master netting agreements. The net payment amounts are based on the fair value of the underlying derivative instrument, excluding the credit risk valuation adjustment, plus any unpaid accrued interest

amounts.

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Table 28: Rating Triggers for Derivatives

(Dollars in thousands)	Notional Amount	Payable Due From CFC	Receivable Due to CFC	Net (Payable)/Receivable
Impact of rating downgrade trigger:				
Falls below A3/A- <sup>(1)</sup>	\$59,165	\$(13,713 )	\$ —	—\$ (13,713 )
Falls below Baa1/BBB+	7,008,763	(208,022 )	—	(208,022 )
Falls to or below Baa2/BBB <sup>(2)</sup>	459,106	(646 )	—	(646 )
Falls below Baa3/BBB-	268,691	(23,581 )	—	(23,581 )
Total	\$7,795,725	\$(245,962)	\$ —	—\$ (245,962 )

<sup>(1)</sup> Rating trigger for CFC falls below A3/A-, while rating trigger for counterparty falls below Baa1/BBB+ by Moody's or S&P, respectively.

<sup>(2)</sup> Rating trigger for CFC falls to or below Baa2/BBB, while rating trigger for counterparty falls to or below Ba2/BB+ by Moody's or S&P, respectively.

The aggregate fair value amount including the credit risk valuation adjustment, of all interest rate swaps with rating triggers that were in a net liability position was \$244 million as of May 31, 2017. There were no counterparties that fell below the rating trigger levels in our interest swap contracts as of May 31, 2017. If a counterparty has a credit rating that falls below the rating trigger level specified in the interest swap contract, we have the option to terminate all derivatives with the counterparty. However, we generally do not terminate such agreements early because our interest rate swaps are critical to our matched funding strategy.

See "Item 1A. Risk Factors" for additional information about credit risk related to our business.

## LIQUIDITY RISK

Our liquidity risk management framework is designed to meet our liquidity objectives of providing a reliable source of funding to members, meet maturing debt and other obligations, issue new debt and fund our operations on a cost-effective basis under normal operating conditions as well as under CFC-specific and/or market stress conditions. We engage in various activities to manage liquidity risk and achieve our liquidity objectives. Our Asset Liability Committee establishes liquidity guidelines that are intended to ensure that we maintain sufficient, diversified sources of liquidity to cover potential funding requirements as well as unanticipated contingencies. Our Treasury group develops strategies to manage our targeted liquidity position, projects our funding needs under various scenarios, including adverse circumstances, and monitors our liquidity position on an ongoing basis.

## Short-Term Borrowings

We rely primarily on cash flows from our operations along with short-term borrowings, which we refer to as our short-term funding portfolio, as sources of funding to meet our near-term, day-to-day liquidity needs. Our short-term funding portfolio consists of commercial paper, which we offer to members and dealers, select notes and daily liquidity fund notes to members, bank-bid notes and medium-term notes to members and dealers. Table 29 displays the year-end, maximum month-end and average outstanding amounts, together with the weighted average interest rate and weighted average maturity, for each respective category of our short-term borrowings for fiscal years 2017, 2016 and 2015.

Table 29: Short-Term Borrowings

(Dollars in thousands)	May 31, 2017				Maximum Month-End Outstanding Amount	Average Outstanding Amount
	Amount Outstanding	Weighted-Average Interest Rate	Weighted-Average Maturity			
Short-term borrowings:						
Commercial paper	\$ 1,927,849	0.94 %	18 days		\$ 3,006,148	\$ 1,916,620
Select notes	696,889	1.12	43 days		840,990	726,276
Daily liquidity fund notes	527,990	0.80	1 day		687,807	542,188
Medium-term notes sold to members	190,172	1.50	144 days		203,246	194,045
Total short-term borrowings	\$3,342,900	0.99 %	28 days			\$ 3,379,129
(Dollars in thousands)	May 31, 2016				Maximum Month-End Outstanding Amount	Average Outstanding Amount
	Amount Outstanding	Weighted-Average Interest Rate	Weighted-Average Maturity			
Short-term borrowings:						
Commercial paper	\$ 1,507,942	0.44 %	17 days		\$ 2,445,894	\$ 1,734,651
Select notes	701,849	0.62	43 days		845,805	709,285
Daily liquidity fund notes	525,959	0.34	1 day		740,142	551,594
Medium-term notes sold to members	203,098	1.05	161 days		213,260	199,078
Total short-term borrowings	\$2,938,848	0.51 %	31 days			\$ 3,194,608
(Dollars in thousands)	May 31, 2015				Maximum Month-End Outstanding Amount	Average Outstanding Amount
	Amount Outstanding	Weighted-Average Interest Rate	Weighted-Average Maturity			
Short-term borrowings:						
Commercial paper	\$ 1,721,116	0.15 %	19 days		\$ 3,184,166	\$ 2,493,040
Select notes	671,635	0.29	41 days		671,635	587,971
Daily liquidity fund notes	509,131	0.08	1 day		588,872	505,060
Bank bid notes	—	—	—		—	438
Medium-term notes sold to members	225,872	0.65	160 days		229,160	216,335
Total short-term borrowings	\$3,127,754	0.20 %	31 days			\$ 3,802,844

Our short-term borrowings totaled \$3,343 million and accounted for 14% of total debt outstanding as of May 31, 2017, compared with \$2,939 million, or 13%, of total debt outstanding as of May 31, 2016. The weighted average maturity and weighted average cost of our short-term borrowings was 28 days and 0.99%, respectively, as of May 31, 2017, compared with 31 days and 0.51%, respectively, as of May 31, 2016. Commercial paper issued through dealers totaled \$1,000 million and represented 4% of total debt outstanding as of May 31, 2017, compared with \$660 million or 3%, as of May 31, 2016. We intend to manage our short-term wholesale funding risk by maintaining outstanding dealer commercial paper at an average amount below \$1,250 million for the foreseeable future.

#### Liquidity Reserve

As part of our strategy in meeting our liquidity objectives, we seek to maintain access to liquidity in the form of both on-balance sheet and off-balance sheet funding sources that are readily accessible for immediate liquidity needs. Table

30 below presents the components of our liquidity reserve and a comparison of the amounts available as of May 31, 2017 and 2016.

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Table 30: Liquidity Reserve

(Dollars in millions)	May 31, 2017			2016		
	Total	Accessed	Available	Total	Accessed	Available
Cash and cash equivalents and time deposits	\$393	\$ —	\$ 393	\$545	\$ —	\$ 545
Committed bank revolving line of credit agreements—unsecured	3,165	1	3,164	3,310	1	3,309
Guaranteed Underwriter Program committed facilities—secured	5,798	5,073	725	5,423	4,823	600
Farmer Mac revolving note purchase agreement, dated March 24, 2011—secured	4,500	2,513	1,987	4,500	2,303	2,197
Farmer Mac revolving note purchase agreement, dated July 31, 2015—secured	300	—	300	300	—	300
Total	\$14,156	\$ 7,587	\$ 6,569	\$14,078	\$ 7,127	\$ 6,951

(1)The accessed amount of \$1 million relates to a letter of credit issued pursuant to the line of credit agreement.

(2)The committed facilities under the Guaranteed Underwriting Program are nonrevolving.

(3)Availability subject to market conditions.

Cash and cash equivalents and time deposits are a source of liquidity available to support our operations. As displayed in Table 30, cash and cash equivalents and time deposits decreased by \$152 million to \$393 million as of May 31, 2017, compared with \$545 million as of May 31, 2016. The decrease was primarily due to the redemption of maturing time deposits during the fourth quarter of fiscal year 2017 to pay off maturing long-term debt.

### Borrowing Capacity

In addition to cash and time deposits, our liquidity reserve includes access to funds under committed revolving line of credit agreements with banks, committed loan facilities under the Guaranteed Underwriter Program and our revolving note purchase agreements with Farmer Mac. Following is a discussion of our borrowing capacity and key terms and conditions under each of these facilities.

#### Committed Bank Revolving Line of Credit Agreements—Unsecured

Our committed bank revolving lines of credit may be used for general corporate purposes; however, we generally rely on them as a backup source of liquidity for our short-term funding portfolio. Our short-term funding portfolio consists of member and dealer commercial paper, select notes to members and daily liquidity fund investments by members.

In September 2016, NCSC assigned a total of \$50 million of its commitment to another financial institution under our committed bank revolving line of credit agreements, which consisted of \$25 million under the three-year agreement and \$25 million under the five-year agreement. On November 18, 2016, we amended and restated the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 19, 2019 and November 19, 2021, respectively, and to terminate certain third-party bank commitments totaling \$165 million under the three-year agreement and \$45 million under the five-year agreement. This reduction was partially offset by an increase in commitment amounts from certain existing banks of \$8 million under each of the three-year and five-year agreements. We also terminated NCSC's remaining commitment of \$60 million. As a result, the total commitment amount from third-parties under the three-year facility and the five-year facility is \$1,533 million and \$1,632 million, respectively, resulting in a combined total commitment amount under the two facilities of \$3,165 million. Under our current committed bank revolving line of credit agreements, we have the ability to request up to \$300 million of letters of credit, which would result in a reduction in the remaining available amount under the facilities.

Table 31 presents the total commitment, the net amount available for use and the outstanding letters of credit under our committed bank revolving line of credit agreements as of May 31, 2017. We did not have any outstanding borrowings under our bank revolving line of credit agreements as of May 31, 2017.

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Table 31: Committed Bank Revolving Line of Credit Agreements

May 31, 2017					
(Dollars in millions)	Total Commitment	Letters of Credit Outstanding	Net Available for Advance	Maturity	Annual Facility Fee <sup>(1)</sup>
3-year agreement	\$1,533	\$ —	\$ 1,533	November 19, 2019	7.5 bps
5-year agreement	1,632	1	1,631	November 19, 2021	10 bps
Total	\$3,165	\$ 1	\$ 3,164		

<sup>(1)</sup>Facility fee based on CFC's senior unsecured credit ratings in accordance with the established pricing schedules at the inception of the related agreement.

The committed bank revolving line of credit agreements do not contain a material adverse change clause or rating triggers that would limit the banks' obligations to provide funding under the terms of the agreements; however, we must be in compliance with the covenants to draw on the facilities. We have been and expect to continue to be in compliance with the covenants under our committed bank revolving line of credit agreements. As such, we could draw on these facilities to repay dealer or member commercial paper that cannot be rolled over. See "Debt Covenants and Financial Ratios" below for additional information, including the specific financial ratio requirements under our committed bank revolving line of credit agreements.

#### Guaranteed Underwriter Program Committed Facilities—Secured

Under the Guaranteed Underwriter Program, we can borrow from the Federal Financing Bank and use the proceeds to refinance existing indebtedness. As part of the program, we pay fees, based on outstanding borrowings, that support the USDA Rural Economic Development Loan and Grant program. The borrowings under this program are guaranteed by RUS.

On December 1, 2016, we closed on a \$375 million Series L committed loan facility from the Federal Financing Bank guaranteed by RUS pursuant to the Guaranteed Underwriter Program. Under the Series L facility, we are able to borrow any time before October 15, 2019, with each advance subject to quarterly amortization and a final maturity not longer than 20 years from the advance date. As a result of this new commitment, the total for committed facilities under the Guaranteed Underwriter Program increased to \$5,798 million, with up to \$725 million available under these facilities during fiscal year 2017.

We borrowed \$250 million with a 20 year final maturity under the Guaranteed Underwriter Program during the year ended May 31, 2017. As part of this program, we had committed loan facilities from the Federal Financing Bank of up to \$725 million available as of May 31, 2017. Of this amount, \$100 million is available for advance through October 15, 2017, \$250 million is available for advance through January 15, 2019 and \$375 million is available for advance through October 15, 2019.

We are required to pledge eligible distribution system or power supply system loans as collateral in an amount at least equal to the total outstanding borrowings under the Guaranteed Underwriter Program. See "Consolidated Balance Sheet Analysis—Debt—Collateral Pledged" and "Note 4—Loans and Commitments" for additional information on pledged collateral.

#### Farmer Mac Revolving Note Purchase Agreements—Secured

As indicated in Table 30, we have two revolving note purchase agreements with Farmer Mac, which together allow us to borrow up to \$4,800 million from Farmer Mac. Under the terms of the first revolving note purchase agreement with Farmer Mac dated March 24, 2011, as amended, we can borrow, subject to market conditions, up to \$4,500 million at any time through January 11, 2020, and such date shall automatically extend on each anniversary date of the closing for an additional year, unless prior to any such anniversary date, Farmer Mac provides us with a notice that the draw period will not be extended beyond the remaining term. This revolving note purchase agreement allows us to borrow, repay and re-borrow funds at any time through maturity, as market conditions permit, provided that the outstanding principal amount at any time does not exceed the total available under the agreement. Each borrowing under the note purchase agreement is evidenced by a pricing agreement setting forth the interest rate, maturity date and other related terms as we may negotiate with Farmer Mac at the time of each such borrowing. We may select a fixed rate or variable rate at the time of each advance with a

maturity as determined in the applicable pricing agreement. We borrowed \$250 million under this agreement during fiscal year 2017. We had outstanding secured notes payable totaling \$2,513 million and \$2,303 million as of May 31, 2017 and 2016, respectively, under the Farmer Mac revolving note purchase agreement of 4,500 million. The available borrowing amount totaled \$1,987 million as of May 31, 2017.

Under the terms of the second revolving note purchase agreement with Farmer Mac dated July 31, 2015, we can borrow up to \$300 million at any time through July 31, 2018. This agreement also allows us to borrow, repay and re-borrow funds at any time through maturity, provided that the outstanding principal amount at any time does not exceed the total available under the agreement. On February 22, 2017, we borrowed \$100 million under this committed note purchase agreement with Farmer Mac, which was repaid in full during the fourth quarter of fiscal year 2017. We currently do not expect to renew this agreement.

Pursuant to both Farmer Mac revolving note purchase agreements, we are required to pledge eligible distribution system or power supply system loans as collateral in an amount at least equal to the total principal amount of notes outstanding. See “Consolidated Balance Sheet Analysis—Debt—Collateral Pledged” and “Note 4—Loans and Commitments” additional information on pledged collateral.

#### Long-Term and Subordinated Debt

Long-term and subordinated debt represents the most significant component of our funding. The issuance of long-term debt allows us to reduce our reliance on short-term borrowings and manage our refinancing and interest rate risk, due in part to the multi-year contractual maturity structure of long-term debt. In addition to private debt issuances, we also issue debt in the public capital markets. Under the SEC rules, we are classified as a “well-known seasoned issuer.” In September 2016, we filed a new shelf registration statement for our collateral trust bonds. Pursuant to our effective shelf registration statements with the SEC, we may offer and issue the following debt securities:

- an unlimited amount of collateral trust bonds until September 2019;
- an unlimited amount of senior and subordinated debt securities, including medium-term notes, member capital securities and subordinated deferrable debt, until November 2017; and
- daily liquidity fund notes up to \$20,000 million in the aggregate—with a \$3,000 million limit on the aggregate principal amount outstanding at any time—until March 2019.

Although we register member capital securities and the daily liquidity fund notes with the SEC, these securities are not available for sale to the general public. Medium-term notes are available for sale to both the general public and members. In November 2017, we intend to file a new shelf registration statement for our medium-term notes, member capital securities and subordinated deferrable debt prior to the expiration of the current registration statement.

As discussed in “Consolidated Balance Sheet Analysis—Debt,” long-term and subordinated debt totaled \$20,117 million and accounted for 86% of total debt outstanding as of May 31, 2017, compared with \$19,660 million, or 87%, of total debt outstanding as of May 31, 2016. The increase in total debt outstanding, including long-term and subordinated debt, was primarily due to the issuance of debt to fund loan portfolio growth. Table 32 summarizes long-term and subordinated debt issuances and maturities, including repurchases and redemptions, during fiscal year 2017.

Table 32: Issuances and Maturities of Long-Term and Subordinated Debt<sup>(1)</sup>

(Dollars in thousands)	Year Ended May 31, 2017		
	Issuances	Maturities	Increase/Decrease
Long-term and subordinated debt activity:			
Collateral trust bonds	\$1,250,000	\$875,000	\$ 375,000
Guaranteed Underwriter Program notes payable	250,000	41,655	208,345
Farmer Mac notes payable	350,000	139,734	210,266
Medium-term notes sold to members	242,004	270,185	(28,181 )
Medium-term notes sold to dealers	846,886	1,128,206	(281,320 )
Other notes payable	—	5,950	(5,950 )
Members' subordinated certificates	3,626	28,220	(24,594 )
Total <sup>(1)</sup>	\$2,942,516	\$2,488,950	\$ 453,566

<sup>(1)</sup>Amounts exclude unamortized debt issuance costs and discounts.

We provide additional information on our financing activities above under “Consolidated Balance Sheet Analysis—Debt” and on the weighted-average interest rates on our long-term debt and subordinated certificates in “Note 7—Long-Term Debt”, “Note 8—Subordinated Deferrable Debt” and “Note 9—Members’ Subordinated Certificates”.

### Credit Ratings

Our funding and liquidity, borrowing capacity, ability to access capital markets and other sources of funds and the cost of these funds are partially dependent on our credit ratings. Rating agencies base their ratings on numerous factors, including liquidity, capital adequacy, industry position, member support, management, asset quality, quality of earnings and the probability of systemic support. Significant changes in these factors could result in different ratings. Table 33 displays our credit ratings as of May 31, 2017, which were unchanged as of the filing date of this Report.

Table 33: Credit Ratings

	May 31, 2017		
	Moody's S&P		Fitch
Long-term issuer credit rating <sup>(1)</sup>	A2	A	A
Senior secured debt <sup>(2)</sup>	A1	A	A+
Senior unsecured debt <sup>(3)</sup>	A2	A	A
Commercial paper	P-1	A-1	F1
Outlook	Stable	Stable	Stable

<sup>(1)</sup>Based on our senior unsecured debt rating.

<sup>(2)</sup>Applies to our collateral trust bonds.

<sup>(3)</sup>Applies to our medium-term notes.

In order to access the commercial paper markets at attractive rates, we believe we need to maintain our current commercial paper credit ratings of P-1 by Moody's, A-1 by S&P and F1 by Fitch. In addition, the notes payable to the Federal Financing Bank and guaranteed by RUS under the Guaranteed Underwriter Program contain a provision that if during any portion of the fiscal year, our senior secured credit ratings do not have at least two of the following ratings: (i) A3 or higher from Moody's, (ii) A- or higher from S&P, (iii) A- or higher from Fitch or (iv) an equivalent rating from a successor rating agency to any of the above rating agencies, we may not make cash patronage capital distributions in excess of 5% of total patronage capital. See “Credit Risk—Counterparty Credit Risk—Credit Risk-Related Contingent Features” above for information on credit rating provisions related to our derivative contracts.



## Projected Near-Term Sources and Uses of Liquidity

As discussed above, our primary sources of liquidity include cash flows from operations, our short-term funding portfolio, our liquidity reserve and the issuance of long-term and subordinated debt, as well as loan principal and interest payments. Our primary uses of liquidity include loan advances to members, principal and interest payments on borrowings, periodic settlement payments related to derivative contracts, costs related to the disposition of foreclosed assets and operating expenses.

Table 34 below displays our projected sources and uses of cash, by quarter, over the next six quarters through the quarter ended November 30, 2018. Our projected liquidity position reflects our current plan to expand our investment portfolio. Our assumptions also include the following: (i) the estimated issuance of long-term debt, including collateral trust bonds and private placement of term debt, is based on maintaining a matched funding position within our loan portfolio with our bank revolving lines of credit serving as a backup liquidity facility for commercial paper; (ii) long-term loan scheduled amortization payments represent the scheduled long-term loan payments for loans outstanding as of May 31, 2017, and our current estimate of long-term loan prepayments, which the amount and timing of are subject to change; (iii) other loan repayments and other loan advances primarily relate to line of credit repayments and advances; (iv) long-term debt maturities reflect scheduled maturities of outstanding term debt for the periods presented; and (v) long-term loan advances reflect our current estimate of member demand for loans, the amount and timing of which are subject to change.

Table 34: Projected Sources and Uses of Liquidity<sup>(1)</sup>

(Dollars in millions)	Projected Sources of Liquidity			Projected Uses of Liquidity			Other <sup>(4)</sup>	Cumulative Excess Sources/(Uses) of Liquidity <sup>(5)</sup>
	Long-Term Debt Issuance	Anticipated Loan Repayments <sup>(2)</sup>	Total Projected Sources of Liquidity	Long-Term Debt Maturities <sup>(3)</sup>	Long-Term Loan Advances	Total Projected Uses of Liquidity		
4Q17								\$ 393
1Q18	\$190	\$ 311	\$ 501	\$167	\$ 494	\$ 661	\$(40 )	193
2Q18	340	293	633	174	349	523	(110 )	193
3Q18	1,115	292	1,407	813	496	1,309	(100 )	191
4Q18	490	306	796	307	257	564	(250 )	173
1Q19	90	297	387	50	390	440	—	120
2Q19	1,615	300	1,915	1,492	363	1,855	—	180
Total	\$3,840	\$ 1,799	\$ 5,639	\$3,003	\$ 2,349	\$ 5,352	\$(500 )	

<sup>(1)</sup>The dates presented represent the end of each quarterly period through the quarter ended November 30, 2018.

<sup>(2)</sup>Anticipated loan repayments include scheduled loan amortizations, repricings and sales.

<sup>(3)</sup>Long-term debt maturities also includes medium-term notes with an original maturity of one year or less.

<sup>(4)</sup>Includes net increase or decrease to dealer commercial paper, and purchases and sales of investments.

<sup>(5)</sup>Cumulative excess sources (uses) of liquidity includes cash and time deposits.

As displayed in Table 34, we currently expect the amount of new long-term loan advances to exceed anticipated loan repayments over the next 12 months by approximately \$394 million. We project that long-term loan advances over the next six quarters of \$2,349 million will exceed expected long-term loan repayments of \$1,799 million by \$550 million. The estimates presented above are developed at a particular point in time based on our expected future business growth and funding. Our actual results and future estimates may vary, perhaps significantly, from the current projections, as a result of changes in market conditions, management actions or other factors.



## Contractual Obligations

Our contractual obligations affect our short- and long-term liquidity needs. Table 35 displays aggregated information about the listed categories of our contractual obligations as of May 31, 2017. The table provides information on the contractual

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maturity profile of our debt securities based on undiscounted future cash payment amounts due pursuant to these obligations, aggregated by type of contractual obligation. The table excludes certain obligations where the obligation is short-term, such as trade payables, or where the amount is not fixed and determinable, such as derivatives subject to valuation based on market factors. The timing of actual future payments may differ from those presented due to a number of factors, such as discretionary debt redemptions or changes in interest rates that may impact our expected future cash interest payments.

Table 35: Contractual Obligations<sup>(1)</sup>

(Dollars in millions)	2018	2019	2020	2021	2022	Thereafter	Total
Short-term borrowings	\$3,343	\$—	\$—	\$—	\$—	\$—	\$3,343
Long-term debt	1,258	2,604	1,368	1,271	1,560	9,895	17,956
Subordinated deferrable debt	—	—	—	—	—	742	742
Members' subordinated certificates <sup>(2)</sup>	10	14	16	55	16	1,307	1,418
Total long-term and subordinated debt	1,268	2,618	1,384	1,326	1,576	11,944	20,116
Contractual interest on long-term debt <sup>(3)</sup>	674	565	488	452	430	4,854	7,463
Total specified contractual obligations	\$5,285	\$3,183	\$1,872	\$1,778	\$2,006	\$16,798	\$30,922

<sup>(1)</sup> Callable debt is included in this table at its contractual maturity.

<sup>(2)</sup> Excludes \$1 million in subscribed and unissued member subordinated certificates for which a payment has been received, but no certificate has been issued. Amortizing member loan subordinated certificates totaling \$290 million are amortizing annually based on the unpaid principal balance of the related loan. Amortization payments on these certificates totaled \$17 million in fiscal year 2017 and represented 6% of amortizing loan subordinated certificates outstanding.

<sup>(3)</sup> Represents the amounts of future interest payments on long-term debt securities outstanding as of May 31, 2017, based on the contractual terms of the securities. These amounts were determined based on certain assumptions, including that variable-rate debt continues to accrue interest at the contractual rates in effect as of May 31, 2017 until maturity and redeemable debt continues to accrue interest until its contractual maturity.

## Debt Covenants and Financial Ratios

We were in compliance with all covenants and conditions under our committed bank revolving line of credit agreements and senior debt indentures as of and for the year ended May 31, 2017. As discussed above in "Introduction" and "Item 6. Selected Financial Data," the financial covenants set forth in our committed bank revolving line of credit agreements and senior debt indentures are based on adjusted financial measures. These adjusted measures consist of adjusted TIER and adjusted senior debt-to-total equity ratio. We provide a reconciliation of these measurements to the most comparable GAAP measures and an explanation of the adjustments below in "Non-GAAP Financial Measures."

### Covenants—Committed Bank Revolving Line of Credit Agreements

Table 36 presents the required and actual financial ratios under our committed bank revolving line of credit agreements as of or for the years ended May 31, 2017 and 2016. We were required to meet the minimum adjusted TIER ratio of 1.05 in fiscal year 2017 in order to retire patronage capital to our members.

Table 36: Financial Covenant Ratios Under Committed Bank Revolving Line of Credit Agreements<sup>(1)</sup>

	Requirement	Actual May 31, 2017	2016
Minimum average adjusted TIER over the six most recent fiscal quarters	1.025	1.18	1.26

Minimum adjusted TIER for the most recent fiscal year	1.05	1.16	1.21
Maximum ratio of adjusted senior debt-to-total equity	10.00	5.67	5.52

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(1) Adjusted TIER is calculated based on adjusted net income (loss) plus adjusted interest expense for the period, divided by adjusted interest expense for the period. In addition to the adjustments made to the leverage ratio set forth under “Non-GAAP Financial Measures,” adjusted senior debt excludes guarantees to member systems that have certain investment-grade credit ratings from Moody’s and S&P.

In addition to the financial covenants, our committed bank revolving line of credit agreements generally prohibit liens on loans to members except for liens pursuant to the following:

- under terms of our indentures,
- related to taxes that are being contested or are not delinquent,
- stemming from certain legal proceedings that are being contested in good faith,
- created by CFC to secure guarantees by CFC of indebtedness, the interest on which is excludable from the gross income of the recipient for federal income tax purposes,
- granted by any subsidiary to CFC and
- to secure other indebtedness of CFC of up to \$10,000 million plus an amount equal to the incremental increase in CFC’s allocated Guaranteed Underwriter Program obligations, provided that the aggregate amount of such indebtedness may not exceed \$12,500 million. The amount of our secured indebtedness under this provision for all of our committed bank revolving line of credit agreements was \$7,512 million as of May 31, 2017.

#### Covenants—Debt Indentures

Table 37 presents the required and actual financial ratios as defined under our 1994 collateral trust bonds indenture and our medium-term notes indentures in the U. S. markets as of May 31, 2017 and 2016.

Table 37: Financial Ratios Under Debt Indentures

	Requirement	Actual	
		May 31, 2017	2016
Maximum ratio of adjusted senior debt to total equity <sup>(1)</sup>	20.00	6.95	7.33

(1) The ratio calculation includes the adjustments made to the leverage ratio under “Non-GAAP Financial Measures,” with the exception of the adjustments to exclude the noncash impact of derivative financial instruments and adjustments from total liabilities and total equity.

In addition to the above financial covenant requirement, we are required to pledge collateral pursuant to the provisions of certain of our borrowing agreements. We provide information on collateral pledged or on deposit above under “Consolidated Balance Sheet Analysis—Debt—Collateral Pledged.”

#### Debt Ratio Analysis

We provide the calculations for our primary debt ratios, which include the adjusted leverage and adjusted debt-to-equity ratios, and a reconciliation to the most comparable GAAP measures (the leverage and debt-to-equity ratios) below in “Non-GAAP Financial Measures.” We explain the basis for the adjustments made to derive the adjusted ratios.

#### Leverage Ratio

The leverage ratio was 22.75-to-1 as of May 31, 2017, compared with 29.81-to-1 as of May 31, 2016. The decrease in the leverage ratio was due to an increase in total equity of \$281 million, primarily attributable to our reported net

income for the period, and a decrease in total guarantees of \$20 million, partially offset by an increase in total liabilities of \$654 million due to the increase in debt to fund our loan portfolio growth.

The leverage ratio under the financial covenants of our committed bank revolving line of credit agreements is adjusted to exclude certain items, which are detailed in Table 43. The adjusted leverage ratio was 6.19-to-1 as of as of May 31, 2017, compared with 6.08-to-1 as of May 31, 2016. The increase in the adjusted leverage ratio was due to an increase in adjusted liabilities of \$894 million, attributable to the increase in debt to fund our loan portfolio growth, which was partially offset by an increase in adjusted equity of \$78 million and the decrease of \$20 million in total guarantees.

### Debt-to-Equity Ratio

The debt-to-equity ratio was 21.94-to-1 as of May 31, 2017, compared with 28.69-to-1 as of May 31, 2016. The decrease in the debt-to-equity ratio was attributable to the increase in total equity of \$281 million, which was partially offset by the increase in total liabilities of \$654 million.

The adjusted debt-to-equity ratio was 5.95-to-1 as of May 31, 2017, compared with 5.82-to-1 as of May 31, 2016. The increase in the adjusted debt-to-equity ratio was attributable to the increase in adjusted liabilities of \$894 million, which was partially offset by the increase in adjusted equity of \$78 million.

### MARKET RISK

Interest rate risk represents our primary market risk. Interest rate risk is the risk arising from movements in interest rates that may result in differences between the timing of contractual maturities, re-pricing characteristics and prepayments on our assets and their related liabilities.

#### Interest Rate Risk

Our interest rate risk exposure is primarily related to the funding of the fixed-rate loan portfolio. Our Asset Liability Committee provides oversight over maintaining our interest rate position within a prescribed policy range using approved strategies. The Asset Liability Committee reviews a complete interest rate risk analysis, reviews proposed modifications, if any, to our interest rate risk management strategy and considers adopting strategy changes. Our Asset Liability Committee monitors interest rate risk and meets quarterly to review and discuss information, such as national economic forecasts, federal funds and interest rate forecasts, interest rate gap analysis, our liquidity position, loan and debt maturities, short-term and long-term funding needs, anticipated loan demands, credit concentration risk, derivative counterparty exposure and financial forecasts. The Asset Liability Committee also discusses the composition of fixed-rate versus variable-rate lending, new funding opportunities, changes to the nature and mix of assets and liabilities for structural mismatches, and interest rate swap transactions.

#### Matched Funding Objective

Our funding objective is to manage the matched funding of asset and liability repricing terms within a range of adjusted total assets (calculated by excluding derivative assets from total assets) deemed appropriate by the Asset Liability Committee based on the current environment and extended outlook for interest rates. We refer to the difference between fixed-rate loans scheduled for amortization or repricing and the fixed-rate liabilities and equity funding those loans as our interest rate gap. Our primary strategies for managing our interest rate risk include the use of derivatives and limiting the amount of fixed-rate assets that can be funded by variable-rate debt to a specified percentage of adjusted total assets based on market conditions.

We provide our members with many options on loans with regard to interest rates, the term for which the selected interest rate is in effect and the ability to convert or prepay the loan. Long-term loans generally have maturities of up to 35 years. Borrowers may select fixed interest rates for periods of one year through the life of the loan. We do not match fund the majority of our fixed-rate loans with a specific debt issuance at the time the loans are advanced. We fund the amount of fixed-rate assets that exceed fixed-rate debt and members' equity with short-term debt, primarily commercial paper.

#### Interest Rate Gap Analysis

To monitor and mitigate interest rate risk in the funding of fixed-rate loans, we perform a monthly interest rate gap analysis that provides a comparison between fixed-rate assets repricing or maturing by year and fixed-rate liabilities

and members' equity maturing by year.

We maintain an unmatched position on our fixed-rate assets within a targeted range of adjusted total assets. The limited unmatched position is intended to provide flexibility to ensure that we are able to match the current maturing portion of long-term fixed rate loans based on maturity date and the opportunity in the current low interest rate environment to increase the gross yield on our fixed rate assets without taking what we would consider to be excessive risk.

Table 38 displays the scheduled amortization and repricing of fixed-rate assets and liabilities outstanding as of May 31, 2017. We exclude variable-rate loans from our interest rate gap analysis as we do not consider the interest rate risk on these loans to be significant because they are subject to repricing at least monthly. Loans with variable interest rates accounted for 9% and 7% of our total loan portfolio as of May 31, 2017 and 2016, respectively. Fixed-rate liabilities include debt issued at a fixed rate as well as variable-rate debt swapped to a fixed rate using interest rate swaps. Fixed-rate debt swapped to a variable rate using interest rate swaps is excluded from the analysis since it is used to match fund the variable-rate loan pool. With the exception of members' subordinated certificates, which are generally issued with extended maturities, and commercial paper, our liabilities have average maturities that closely match the repricing terms (but not the maturities) of our fixed-rate loans.

Table 38: Interest Rate Gap Analysis

(Dollars in millions)	Prior to 5/31/18	Two Years 6/1/18 to 5/31/20	Two Years 6/1/20 to 5/31/22	Five Years 6/1/22 to 5/31/27	10 Years 6/1/27 to 5/31/37	6/1/37 and Thereafter	Total
Asset amortization and repricing	\$2,120	\$3,279	\$2,694	\$5,252	\$6,181	\$2,611	\$22,137
Liabilities and members' equity:							
Long-term debt	\$2,393	\$3,033	\$2,538	\$5,020	\$4,133	\$1,074	\$18,191
Subordinated certificates	21	37	71	993	169	662	1,953
Members' equity <sup>(1)</sup>	—	15	25	110	325	829	1,304
Total liabilities and members' equity <sup>(2)</sup>	\$2,414	\$3,085	\$2,634	\$6,123	\$4,627	\$2,565	\$21,448
Gap <sup>(3)</sup>	\$(294 )	\$194	\$60	\$(871 )	\$1,554	\$46	\$689
Cumulative gap	(294 )	(100 )	(40 )	(911 )	643	689	
Cumulative gap as a % of total assets	(1.17 )%	(0.40 )%	(0.16 )%	(3.61 )%	2.55 %	2.73 %	
Cumulative gap as a % of adjusted total assets <sup>(4)</sup>	(1.17 )	(0.40 )	(0.16 )	(3.62 )	2.56	2.74	

<sup>(1)</sup>Includes the portion of the allowance for loan losses and subordinated deferrable debt allocated to fund fixed-rate assets and excludes noncash adjustments from the accounting for derivative financial instruments.

<sup>(2)</sup>Debt is presented based on the call date.

<sup>(3)</sup>Calculated based on the amount of assets amortizing and repricing less total liabilities and members' equity.

<sup>(4)</sup>Adjusted total assets represents total assets reported in our consolidated balance sheets less derivative assets.

The difference, or interest rate gap, of \$689 million between the fixed-rate loans scheduled for amortization or repricing of \$22,137 million and the fixed-rate liabilities and equity funding the loans of \$21,448 million presented in Table 38 reflects the amount of fixed-rate assets that are funded with short-term and variable-rate debt as of May 31, 2017. The gap of \$689 million represented 2.73% of total assets and 2.74% of adjusted total assets (total assets excluding derivative assets) as of May 31, 2017. As discussed above, we manage this gap within a prescribed range because funding long-term, fixed-rate loans with short-term and variable-rate debt may expose us to higher interest rate and liquidity risk.

## Financial Instruments

Table 39 provides information about our financial instruments, other than derivatives, that are sensitive to changes in interest rates. We provide additional information on our use of derivatives and exposure in "Note 1—Summary of Significant Accounting Policies—Derivative Instruments" and "Note 10—Derivative Instruments and Hedging Activities." All of our financial instruments as of May 31, 2017 were entered into or contracted for purposes other than trading. For debt obligations, the table presents principal cash flows and related average interest rates by expected maturity dates as of May 31, 2017.





Table 39: Financial Instruments

(Dollars in millions)	Outstanding Balance	Fair Value	Principal Amortization and Maturities					Remaining Years
			2018	2019	2020	2021	2022	
Instruments:								
Assets:								
Investments in time deposits	\$ 226	\$ 226	\$ 226	\$—	\$—	\$—	\$—	\$—
Investments in equity securities	\$ 93	\$ 93	\$—	\$—	\$—	\$—	\$—	\$ 93
Long-term fixed-rate loans <sup>(1)</sup>	\$ 22,137	\$ 21,999	\$ 1,135	\$ 1,110	\$ 1,136	\$ 1,135	\$ 1,105	\$ 16,516
Average rate	4.62	%	4.29	% 4.35	% 4.42	% 4.46	% 4.51	% 4.70
Long-term variable-rate loans	\$ 847	\$ 847	\$ 57	\$ 77	\$ 59	\$ 36	\$ 37	\$ 581
Average rate	2.59	%	—	—	—	—	—	—
Line of credit loans	\$ 1,372	\$ 1,372	\$ 1,372	\$—	\$—	\$—	\$—	\$—
Average rate	2.32	%	2.32	% —	—	—	—	—
Liabilities and equity:								
Short-term borrowings <sup>(2)</sup>	\$ 3,343	\$ 3,343	\$ 3,343	\$—	\$—	\$—	\$—	\$—
Average rate	0.99	%	0.99	% —	—	—	—	—
Long-term debt	\$ 17,956	\$ 18,744	\$ 1,258	\$ 2,604	\$ 1,368	\$ 1,271	\$ 1,560	\$ 9,895
Average rate	3.29	%	3.80	% 5.40	% 2.04	% 2.28	% 2.37	% 3.12
Subordinated deferrable debt	\$ 742	\$ 788	\$—	\$—	\$—	\$—	\$—	\$ 742
Average rate	4.98	%	—	% —	—	—	—	4.98
Membership subordinated certificates <sup>(3)</sup>	\$ 1,418	\$ 1,418	\$ 10	\$ 14	\$ 16	\$ 55	\$ 16	\$ 1,307
Average rate	4.18	%	2.26	% 2.98	% 2.98	% 3.85	% 3.08	% 4.25

<sup>(1)</sup> The principal amount of fixed-rate loans is the total of scheduled principal amortizations without consideration for loans that reprice. Includes \$13 million in TDR loans that were on accrual status as of May 31, 2017.

<sup>(2)</sup> Short-term borrowings includes commercial paper, select notes, daily liquidity fund notes, bank bid notes and medium-term notes issued with an original maturity of one year or less.

<sup>(3)</sup> Excludes \$1 million in subscribed and unissued member subordinated certificates for which a payment has been received, but no certificate has been issued. Amortizing member loan subordinated certificates totaling \$290 million are amortizing annually based on the unpaid principal balance of the related loan. Amortization payments on these certificates totaled \$17 million in fiscal year 2017 and amortization represented 6% of amortizing loan subordinated certificates outstanding.

### Loan Repricing

Table 40 shows long-term fixed-rate loans outstanding as of May 31, 2017, which will be subject to interest rate repricing during the next five fiscal years and thereafter (due to principal repayments, amounts subject to interest rate repricing may be lower at the actual time of interest rate repricing).

Table 40: Loan Repricing

(Dollars in thousands)	Repricing Amount	Weighted-Average Interest Rate
2018	\$ 1,012,713	4.27 %
2019	725,800	4.60
2020	499,630	4.74
2021	403,425	4.49
2022	350,175	4.76
Thereafter	1,476,349	5.12

Total \$4,468,092

70

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## OPERATIONAL RISK

Operational risk represents the risk of loss resulting from conducting our operations, including, but not limited to, the execution of unauthorized transactions by employees; errors relating to loan documentation, transaction processing and technology; the inability to perfect liens on collateral; breaches of internal control and information systems; and the risk of fraud by employees or persons outside the Company. This risk of loss also includes potential legal actions that could arise as a result of operational deficiencies, noncompliance with covenants in our revolving credit agreements and indentures, employee misconduct or adverse business decisions. In the event of a breakdown in internal controls, improper access to or operation of systems or improper employee actions, we could incur financial loss. Operational/business risk may also include breaches of our technology and information systems resulting from unauthorized access to confidential information or from internal or external threats, such as cyberattacks.

Operational risk is inherent in all business activities. The management of such risk is important to the achievement of our objectives. We maintain business policies and procedures, employee training, an internal control framework and a comprehensive business continuity and disaster recovery plan that are intended to provide a sound operational environment. Our business policies and controls have been designed to manage operational risk at appropriate levels given our financial strength, the business environment and markets in which we operate, the nature of our businesses, and considering factors such as competition and regulation. Our Corporate Compliance group monitors compliance with established procedures that are designed to ensure adherence to generally accepted conduct, ethics and business practices defined in our corporate policies. We provide employee compliance training programs, such as for our “Code of Conduct” and regarding information protection, suspicious activity reporting and operational risk. Our Internal Audit group examines the design and operating effectiveness of our operational, compliance, and financial reporting internal controls on an ongoing basis.

Our business continuity and disaster recovery plan establishes the basic principles and framework necessary to ensure emergency response, resumption, restoration and permanent recovery of CFC’s operations and business activities during a business interruption event. This plan includes a duplication of our production information systems at an off-site facility coupled with an extensive business continuity and recovery process to leverage those remote systems. Each of our departments is required to develop, exercise, test and maintain business resumption plans for the recovery of business functions and processing resources to minimize disruption for our members and other parties with whom we do business. We conduct disaster recovery exercises periodically that include both the information technology group and business areas. The business resumption plans are based on a risk assessment that considers potential losses due to unavailability of service versus the cost of resumption. These plans anticipate a variety of probable scenarios ranging from local to regional crises.

## NON-GAAP FINANCIAL MEASURES

In addition to financial measures determined in accordance with GAAP, management evaluates performance based on certain non-GAAP measures, which we refer to as “adjusted” measures. We provide a discussion of each of these non-GAAP measures and provide a reconciliation of our adjusted measures to the most comparable GAAP measures in this section. We believe our non-GAAP adjusted metrics, which are not a substitute for GAAP and may not be consistent with similarly titled non-GAAP measures used by other companies, provide meaningful information and are useful to investors because the financial covenants in our committed bank revolving line of credit agreements and debt indentures are based on these adjusted metrics and management uses these metrics to compare operating results across financial reporting periods, for internal budgeting and forecasting purposes, for compensation decisions and for short- and long-term strategic planning decisions.

## Statements of Operations Non-GAAP Adjustments and Calculation of Adjusted TIER

Our primary performance measure is TIER. TIER is calculated by adding the interest expense to net income prior to the cumulative effect of change in accounting principle and dividing that total by the interest expense. TIER is a measure of our ability to cover interest expense requirements on our debt. We adjust the TIER calculation to add the derivative cash settlements to the interest expense and to remove the derivative forward value gains (losses) and foreign currency adjustments from total net income. Adding the cash settlements back to the interest expense also has a corresponding effect on our adjusted net interest income. We make these adjustments to our TIER calculation for covenant compliance on our revolving credit agreements.

We use derivatives to manage interest rate risk on our funding of the loan portfolio. The derivative cash settlements represent the amount that we receive from or pay to our counterparties based on the interest rate indexes in our derivatives that do not qualify for hedge accounting. We adjust the reported interest expense to include the derivative cash settlements. We use the adjusted cost of funding to set interest rates on loans to our members and believe that the interest expense adjusted to include derivative cash settlements represents our total cost of funding for the period. For computing compliance with our revolving credit agreement covenants, we are required to adjust our interest expense to include the derivative cash settlements. TIER calculated by adding the derivative cash settlements to the interest expense reflects management's perspective on our operations and, therefore, we believe that it represents a useful financial measure for investors.

The derivative forward value gains (losses) and foreign currency adjustments do not represent our cash inflows or outflows during the current period and, therefore, do not affect our current ability to cover our debt service obligations. The derivative forward value gains (losses) included in the derivative gains (losses) line of the statement of operations represents a present value estimate of the future cash inflows or outflows that will be recognized as net cash settlements for all periods through the maturity of our derivatives that do not qualify for hedge accounting. We have not issued foreign-denominated debt since 2007, and as of May 31, 2017 and 2016, there were no foreign currency derivative instruments outstanding.

For operational management and decision-making purposes, we subtract the derivative forward value gains (losses) and foreign currency adjustments from our net income when calculating TIER and for other net income presentation purposes. The covenants in our revolving credit agreements also exclude the effects of derivative forward value gains (losses) and foreign currency adjustments, if any. In addition, since the derivative forward value gains (losses) and foreign currency adjustments do not represent current period cash flows, we do not allocate such funds to our members and, therefore, exclude the derivative forward value gains (losses) and foreign currency adjustments from net income in calculating the amount of net income to be allocated to our members. TIER calculated by excluding the derivative forward value gains (losses) and foreign currency adjustments from net income reflects management's perspective on our operations and, therefore, we believe that it represents a useful financial measure for investors.

Our total equity includes the noncash impact of changes in derivative forward value gains (losses) and foreign currency adjustments that are recorded in net income. In addition, the accumulated other comprehensive income component of total equity includes the impact of changes in the fair value of derivatives designated as cash flow hedges as well as the remaining transition adjustment recorded when we adopted the accounting guidance requiring that all derivatives be recorded on the balance sheet at fair value. In evaluating our leverage and debt-to-equity ratios discussed further below, we make adjustments to equity similar to the adjustments made in calculating TIER. We exclude from total equity the cumulative impact of changes in derivative forward value gains (losses) and foreign currency adjustments and amounts included in accumulated other comprehensive income related to derivatives designated for cash flow hedge accounting and the remaining derivative transition adjustment to derive non-GAAP adjusted equity.

Table 41 provides a reconciliation of adjusted interest expense, adjusted net interest income and adjusted net income to the comparable GAAP measures. The adjusted amounts are used in the calculation of our adjusted net interest yield and adjusted TIER for fiscal years 2017, 2016, 2015, 2014 and 2013.

Table 41: Adjusted Financial Measures — Income Statement

(Dollars in thousands)	Year Ended May 31,				
	2017	2016	2015	2014	2013
Interest expense	\$(741,738)	\$(681,850)	\$(635,684)	\$(654,655)	\$(692,025)
Include: Derivative cash settlements	(84,478 )	(88,758 )	(82,906 )	(73,962 )	(56,461 )
Adjusted interest expense	\$(826,216)	\$(770,608)	\$(718,590)	\$(728,617)	\$(748,486)
Net interest income	\$294,896	\$330,786	\$317,292	\$302,885	\$263,728
Include: Derivative cash settlements	(84,478 )	(88,758 )	(82,906 )	(73,962 )	(56,461 )
Adjusted net interest income	\$210,418	\$242,028	\$234,386	\$228,923	\$207,267
Net income (loss)	\$312,099	\$(51,516 )	\$(18,927 )	\$192,926	\$358,087
Exclude: Derivative forward value gains (losses)	179,381	(221,083 )	(114,093 )	39,541	141,304
Adjusted net income	\$132,718	\$169,567	\$95,166	\$153,385	\$216,783

We consider the cost of derivatives to be an inherent cost of funding and hedging our loan portfolio and, therefore, economically similar to the interest expense that we recognize on debt issued for funding. We therefore include derivative cash settlements in our adjusted interest expense and exclude the unrealized forward value of derivatives from our adjusted net income.

#### TIER Calculation

Table 42 presents our TIER and adjusted TIER for the years ended May 2017, 2016, 2015, 2014 and 2013.

Table 42: TIER and Adjusted TIER

	Year Ended May 31,				
	2017	2016	2015	2014	2013
TIER <sup>(1)</sup>	1.42	0.92	0.97	1.29	1.52
Adjusted TIER <sup>(2)</sup>	1.16	1.22	1.13	1.21	1.29

<sup>(1)</sup> TIER is calculated based on net income plus interest expense for the period divided by interest expense for the period.

<sup>(2)</sup> Adjusted TIER is calculated based on adjusted net income plus adjusted interest expense for the period divided by adjusted interest expense for the period.

#### Adjustments to the Calculation of Leverage and Debt-to-Equity Ratios

We are required under our credit agreements to maintain compliance with certain financial covenants that are non-GAAP measures, including the adjusted leverage and adjusted debt-to-equity ratios. We have been and continue to be in compliance with the covenants under our credit agreements. Management also relies on the adjusted debt-to-equity ratio as a key measure in managing our business. We therefore believe that these adjusted measures, in combination with the comparable GAAP measures, are useful to investors in evaluating performance. We adjust the comparable GAAP measures to:

- exclude debt used to fund loans that are guaranteed by RUS from total liabilities;
- exclude from total liabilities, and add to total equity, debt with equity characteristics issued to our members and in the capital markets; and
- exclude the noncash impact of derivative financial instruments and foreign currency adjustments from total liabilities and total equity.





For computing compliance with our revolving credit agreement covenants, we are required to make these adjustments to our leverage ratio calculation. The revolving credit agreements prohibit us from incurring senior debt in an amount in excess of 10 times the sum of equity, members' subordinated certificates and subordinated deferrable debt, as defined by the agreements. In addition to the adjustments we make to calculate the adjusted leverage ratio, guarantees to our member systems that have an investment-grade rating from Moody's and S&P are excluded from the calculation of the leverage ratio under the terms of the revolving credit agreements.

We are an eligible lender under the RUS loan guarantee program. Loans issued under this program carry the U.S. government's guarantee of all interest and principal payments. We have little or no risk associated with the collection of principal and interest payments on these loans. Therefore, we believe there is little or no risk related to the repayment of the liabilities used to fund RUS-guaranteed loans and we subtract such liabilities from total liabilities to calculate our leverage and debt-to-equity ratios. For computing compliance with our revolving credit agreement covenants, we are required to adjust our leverage ratio by subtracting liabilities used to fund RUS-guaranteed loans from total liabilities.

Members may be required to purchase subordinated certificates as a condition of membership and as a condition to obtaining a loan or guarantee. The subordinated certificates are accounted for as debt under GAAP. The subordinated certificates have long-dated maturities and pay no interest or pay interest that is below market, and under certain conditions we are prohibited from making interest payments to members on the subordinated certificates. For computing compliance with our revolving credit agreement covenants, we are required to adjust our leverage ratio by subtracting members' subordinated certificates from total liabilities and adding members' subordinated certificates to total equity.

We also sell subordinated deferrable debt in the capital markets with maturities of up to 30 years and the option to defer interest payments. The characteristics of subordination, deferrable interest and long-dated maturity are all equity characteristics. For computing compliance with our revolving credit agreement covenants, we are required to adjust our leverage ratio by subtracting subordinated deferrable debt from total liabilities and adding it to total equity.

We record derivative instruments at fair value on our consolidated balance sheets. For computing compliance with our revolving credit agreement covenants, we are required to adjust our leverage ratio by excluding the noncash impact of our derivative accounting from liabilities and equity. For computing compliance with our revolving credit agreement covenants, we are also required to adjust our leverage ratio by excluding the impact of foreign currency valuation adjustments from liabilities and equity. The leverage and debt-to-equity ratios adjusted to exclude the effect of foreign currency translation reflect management's perspective on our operations and, therefore, we believe these are useful financial measures for investors.

Table 43 provides a reconciliation between the liabilities and equity used to calculate the leverage and debt-to-equity ratios and the adjusted leverage and adjusted debt-to-equity ratios as of May 31, 2017, 2016, 2015, 2014 and 2013. As indicated in the table below, subordinated debt is treated in the same manner as equity in calculating our adjusted leverage and adjusted-debt-to-equity ratios pursuant to the financial covenants under our committed bank revolving line of credit agreements.

Table 43: Adjusted Financial Measures — Balance Sheet

(Dollars in thousands)	May 31,				
	2017	2016	2015	2014	2013
Total liabilities	\$24,106,887	\$23,452,822	\$21,934,273	\$21,220,311	\$21,221,441
Exclude:					
Derivative liabilities	385,337	594,820	408,382	388,208	475,278
Debt used to fund loans guaranteed by RUS	167,395	173,514	179,241	201,863	210,815
Subordinated deferrable debt	742,274	742,212	395,699	395,627	395,729
Subordinated certificates	1,419,025	1,443,810	1,505,420	1,612,191	1,765,776
Adjusted total liabilities	\$21,392,856	\$20,498,466	\$19,445,531	\$18,622,422	\$18,373,843
Total equity	\$1,098,805	\$817,378	\$911,786	\$970,374	\$811,261
Exclude:					
Prior-year cumulative derivative forward value losses	(520,357 )	(299,274 )	(185,181 )	(224,722 )	(366,026 )
Current-year cumulative derivative forward value (gains) losses	179,381	(221,083 )	(114,093 )	39,541	141,304
Accumulated other comprehensive income <sup>(1)</sup>	3,702	4,487	5,371	6,320	7,287
Include:					
Subordinated certificates	1,419,025	1,443,810	1,505,420	1,612,191	1,765,776
Subordinated deferrable debt	742,274	742,212	395,699	395,627	395,729
Adjusted total equity	\$3,597,378	\$3,519,270	\$3,106,808	\$3,157,053	\$3,190,201
Guarantees <sup>(2)</sup>	\$889,617	\$909,208	\$986,500	\$1,064,822	\$1,112,771

<sup>(1)</sup> Represents the AOCI related to derivatives. See “Note 11—Equity” for a breakout of our AOCI components.

<sup>(2)</sup> Guarantees are used in the calculation of leverage and adjusted leverage ratios below.

Table 44 displays the calculations of our leverage and debt-to-equity ratios and our adjusted leverage and debt-to-equity ratios as of the years ended May 31, 2017, 2016, 2015, 2014 and 2013.

Table 44: Leverage and Debt-to-Equity Ratios

	May 31,				
	2017	2016	2015	2014	2013
Leverage ratio <sup>(1)</sup>	22.75	29.81	25.14	22.97	27.53
Adjusted leverage ratio <sup>(2)</sup>	6.19	6.08	6.58	6.24	6.11
Debt-to-equity ratio <sup>(3)</sup>	21.94	28.69	24.06	21.87	26.16
Adjusted debt-to-equity ratio <sup>(4)</sup>	5.95	5.82	6.26	5.90	5.76

<sup>(1)</sup> Calculated based on total liabilities and guarantees as of the end of the period divided by total equity as of the end of the period.

<sup>(2)</sup> Calculated based on adjusted total liabilities and guarantees as of the end of the period divided by adjusted total equity as of the end of the period. See Table 43 above for the adjustments to reconcile total liabilities and guarantees and total equity to adjusted total liabilities and guarantees and adjusted total equity.

<sup>(3)</sup> Calculated based on total liabilities as of the end of the period divided by total equity as of the end of the period.

<sup>(4)</sup> Calculated based on adjusted total liabilities at period end divided by adjusted total equity at period end.

In calculating the required financial covenants in our revolving credit agreements, we adjust net income, debt and total equity to exclude unrealized amounts related to the accounting for derivatives and foreign currency translation. Below

we provide additional information on the calculations to derive adjusted TIER and the adjusted debt-to-total equity ratio pursuant to the required financial covenants in our revolving credit agreements.

Adjusted TIER, as defined in our revolving credit agreements, is calculated based on the sum of (i) interest expense, adjusted to include (ii) derivative cash settlements and (iii) net income prior to the cumulative effect of change in accounting principle, divided by interest expense adjusted to include derivative cash settlements.

The adjusted debt-to-total equity ratio is calculated based on (i) senior debt, adjusted to exclude (ii) RUS-guaranteed loans, subordinated deferrable debt and members' subordinated certificates divided by (iii) total equity, adjusted to include (iv) subordinated deferrable debt and members' subordinated certificates. Senior debt includes guarantees; however, it excludes:

guarantees for members where the long-term unsecured debt of the member is rated at least BBB+ by S&P or Baa1 by Moody's; and

the payment of principal and interest by the member on the guaranteed indebtedness if covered by insurance or reinsurance provided by an insurer having an insurance financial strength rating of AAA by S&P or Aaa by Moody's.

Results of operations related to CAH, including impairment and other comprehensive income amounts, are excluded in calculating both adjusted TIER and the adjusted senior debt-to-total equity ratio.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

For quantitative and qualitative disclosures about market risk, see “Item 7. MD&A—Market Risk” and “Note 10—Derivative Instruments and Hedging Activities.”

Item 8. Financial Statements and Supplementary Data

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Members  
National Rural Utilities Cooperative Finance Corporation  
Dulles, Virginia

We have audited the accompanying consolidated balance sheets of National Rural Utilities Cooperative Finance Corporation and subsidiaries (the Company) as of May 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended May 31, 2017. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion. In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of National Rural Utilities Cooperative Finance Corporation and subsidiaries as of May 31, 2017 and 2016, and the results of their operations and their cash flows for each of the years in the three-year period ended May 31, 2017, in conformity with U.S. generally accepted accounting principles.

/s/ KPMG LLP

McLean, Virginia  
August 1, 2017

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
CONSOLIDATED STATEMENTS OF OPERATIONS

(Dollars in thousands)	Year Ended May 31,		
	2017	2016	2015
Interest income	\$1,036,634	\$1,012,636	\$952,976
Interest expense	(741,738 )	(681,850 )	(635,684 )
Net interest income	294,896	330,786	317,292
Benefit (provision) for loan losses	(5,978 )	646	21,954
Net interest income after benefit (provision) for loan losses	288,918	331,432	339,246
Non-interest income:			
Fee and other income	19,713	21,785	36,783
Derivative gains (losses)	94,903	(309,841 )	(196,999 )
Results of operations of foreclosed assets	(1,749 )	(6,899 )	(120,148 )
Total non-interest income	112,867	(294,955 )	(280,364 )
Non-interest expense:			
Salaries and employee benefits	(47,769 )	(44,590 )	(43,845 )
Other general and administrative expenses	(38,457 )	(41,753 )	(32,685 )
Gains (losses) on early extinguishment of debt	192	(333 )	(703 )
Other non-interest expense	(1,948 )	(1,260 )	(167 )
Total non-interest expense	(87,982 )	(87,936 )	(77,400 )
Income (loss) before income taxes	313,803	(51,459 )	(18,518 )
Income tax expense	(1,704 )	(57 )	(409 )
Net income (loss)	312,099	(51,516 )	(18,927 )
Less: Net (income) loss attributable to noncontrolling interests	(2,193 )	1,863	(105 )
Net income (loss) attributable to CFC	\$309,906	\$(49,653 )	\$(19,032 )

See accompanying notes to consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Dollars in thousands)	Year Ended May 31,		
	2017	2016	2015
Net income (loss)	\$312,099	\$(51,516)	\$(18,927)
Other comprehensive income (loss):			
Unrealized gains on available-for-sale investment securities	4,614	3,468	4,295
Unrealized losses on foreclosed assets	—	(5,575)	(1,938)
Reclassification of losses on foreclosed assets to net income	9,823	—	—
Reclassification of derivative gains to net income	(785)	(888)	(959)
Defined benefit plan adjustments	(1,535)	(31)	(977)
Other comprehensive income (loss)	12,117	(3,026)	421
Total comprehensive income (loss)	324,216	(54,542)	(18,506)
Less: Total comprehensive (income) loss attributable to noncontrolling interests	(2,193)	1,867	(95)
Total comprehensive income (loss) attributable to CFC	\$322,023	\$(52,675)	\$(18,601)

See accompanying notes to consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
CONSOLIDATED BALANCE SHEETS

(Dollars in thousands)	May 31, 2017	2016
Assets:		
Cash and cash equivalents	\$ 166,615	\$ 204,540
Restricted cash	21,806	4,628
Time deposits	226,000	340,000
Investment securities available for sale, at fair value	92,554	87,940
Loans to members	24,367,044	23,162,696
Less: Allowance for loan losses	(37,376 )	(33,258 )
Loans to members, net	24,329,668	23,129,438
Accrued interest receivable	111,493	113,272
Other receivables	45,469	51,478
Fixed assets, net	122,260	112,563
Foreclosed assets, net	—	102,967
Derivative assets	49,481	80,095
Other assets	40,346	43,279
Total assets	\$ 25,205,692	\$ 24,270,200
Liabilities:		
Accrued interest payable	\$ 137,476	\$ 132,996
Debt outstanding:		
Short-term borrowings	3,342,900	2,938,848
Long-term debt	17,955,594	17,473,603
Subordinated deferrable debt	742,274	742,212
Members' subordinated certificates:		
Membership subordinated certificates	630,098	630,063
Loan and guarantee subordinated certificates	567,830	593,701
Member capital securities	221,097	220,046
Total members' subordinated certificates	1,419,025	1,443,810
Total debt outstanding	23,459,793	22,598,473
Deferred income	73,972	78,651
Derivative liabilities	385,337	594,820
Other liabilities	50,309	47,882
Total liabilities	24,106,887	23,452,822
Commitments and contingencies		
Equity:		
CFC equity:		
Retained equity	1,056,778	790,234
Accumulated other comprehensive income	13,175	1,058
Total CFC equity	1,069,953	791,292
Noncontrolling interests	28,852	26,086
Total equity	1,098,805	817,378
Total liabilities and equity	\$ 25,205,692	\$ 24,270,200

See accompanying notes to consolidated financial statements.

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NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(Dollars in thousands)	Membership Fees and Education Fund	Patronage Capital Allocated	Members' Capital Reserve	Unallocated Net Income (Loss)	CFC Retained Equity	Accumulated Other Comprehensive Income	Total CFC Equity	Non-contrasting Interests	Total Equity
Balance as of May 31, 2014	\$2,751	\$630,340	\$485,447	\$(178,650)	\$939,888	\$3,649	\$943,537	\$26,837	\$970,374
Net income (loss)	927	78,420	16,283	(114,662 )	(19,032 )	—	(19,032 )	105	(18,927 )
Other comprehensive income	—	—	—	—	—	431	431	(10 )	421
Patronage capital retirement	—	(39,779 )	—	—	(39,779 )	—	(39,779 )	(362 )	(40,141 )
Other	(935 )	(1 )	1	100	(835 )	—	(835 )	894	59
Balance as of May 31, 2015	\$2,743	\$668,980	\$501,731	\$(293,212)	\$880,242	\$4,080	\$884,322	\$27,464	\$911,786
Net income (loss)	1,000	84,257	85,917	(220,827 )	(49,653 )	—	(49,653 )	(1,863 )	(51,516 )
Other comprehensive income	—	—	—	—	—	(3,022 )	(3,022 )	(4 )	(3,026 )
Patronage capital retirement	—	(39,384 )	—	—	(39,384 )	—	(39,384 )	—	(39,384 )
Other	(971 )	—	(429 )	429	(971 )	—	(971 )	489	(482 )
Balance as of May 31, 2016	\$2,772	\$713,853	\$587,219	\$(513,610)	\$790,234	\$1,058	\$791,292	\$26,086	\$817,378
Net income	1,000	90,441	43,086	175,379	309,906	—	309,906	2,193	312,099
Other comprehensive income	—	—	—	—	—	12,117	12,117	—	12,117
Patronage capital retirement	—	(42,593 )	—	103	(42,490 )	—	(42,490 )	—	(42,490 )
Other	(872 )	—	—	—	(872 )	—	(872 )	573	(299 )
Balance as of May 31, 2017	\$2,900	\$761,701	\$630,305	\$(338,128)	\$1,056,778	\$13,175	\$1,069,953	\$28,852	\$1,098,805

See accompanying notes to consolidated financial statements.

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NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in thousands)	Year Ended May 31,		
	2017	2016	2015
Cash flows from operating activities:			
Net income (loss)	\$312,099	\$(51,516 )	\$(18,927 )
Adjustments to reconcile net income to net cash provided by operating activities:			
Amortization of deferred income	(14,072 )	(18,751 )	(11,582 )
Amortization of debt issuance costs and deferred charges	9,484	8,478	7,351
Amortization of discount on long-term debt	9,501	8,693	7,939
Amortization of issuance costs for revolving bank lines of credit	5,531	5,535	5,238
Depreciation and amortization	7,173	7,327	6,497
Provision (benefit) for loan losses	5,978	(646 )	(21,954 )
Results of operations of foreclosed assets	1,749	6,899	120,148
Derivative forward value (gains) losses	(179,381 )	221,083	114,093
Changes in operating assets and liabilities:			
Accrued interest receivable	1,778	(6,225 )	(6,705 )
Accrued interest payable	4,480	9,299	5,316
Deferred income	9,393	21,822	9,122
Other	5,855	15,560	2,442
Net cash provided by operating activities	179,568	227,558	218,978
Cash flows from investing activities:			
Advances on loans	(7,762,423 )	(8,484,794 )	(8,333,180 )
Principal collections on loans	6,616,750	6,791,710	7,339,378
Net investment in fixed assets	(17,793 )	(9,806 )	(9,940 )
Net cash proceeds from sale of foreclosed assets	51,042	5,414	16,709
Proceeds from foreclosed assets	—	(4,349 )	(9,651 )
Proceeds from time deposits, net	114,000	145,000	65,000
Investments in securities available for sale	—	—	(25,000 )
Change in restricted cash	(17,178 )	(4,143 )	35
Net cash used in investing activities	(1,015,602 )	(1,560,968 )	(956,649 )
Cash flows from financing activities:			
Proceeds from (repayments of) short-term borrowings, net	409,871	(154,072 )	(1,042,483 )
Proceeds from short-term borrowings with original maturity greater than 90 days	1,003,185	890,242	574,187
Repayments of short term-debt with original maturity greater than 90 days	(1,009,004 )	(925,076 )	(503,281 )
Payments for issuance costs for revolving bank lines of credit	(2,548 )	(3,009 )	(3,249 )
Proceeds from issuance of long-term debt, net of issuance costs	2,923,868	2,920,669	3,049,869
Payments for retirement of long-term debt	(2,460,730 )	(1,709,283 )	(1,296,620 )
Payments for issuance costs for subordinated deferrable debt	(68 )	—	—
Proceeds from issuance of subordinated debt	—	346,433	—
Proceeds from issuance of members' subordinated certificates	3,626	5,654	74,842
Payments for retirement of members' subordinated certificates	(28,220 )	(43,596 )	(166,275 )
Payments for retirement of patronage capital	(41,871 )	(38,848 )	(39,198 )
Net cash provided by financing activities	798,109	1,289,114	647,792
Net decrease in cash and cash equivalents	(37,925 )	(44,296 )	(89,879 )
Beginning cash and cash equivalents	204,540	248,836	338,715
Ending cash and cash equivalents	\$166,615	\$204,540	\$248,836



See accompanying notes to consolidated financial statements.

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NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in thousands)	Year Ended May 31,		
	2017	2016	2015
Supplemental disclosure of cash flow information:			
Cash paid for interest	\$712,742	\$649,845	\$609,840
Cash paid for income taxes	407	72	210

See accompanying notes to consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company

National Rural Utilities Cooperative Finance Corporation (“CFC”) is a member-owned cooperative association incorporated under the laws of the District of Columbia in April 1969. CFC’s principal purpose is to provide its members with financing to supplement the loan programs of the Rural Utilities Service (“RUS”) of the United States Department of Agriculture (“USDA”). CFC makes loans to its rural electric members so they can acquire, construct and operate electric distribution, generation, transmission and related facilities. CFC also provides its members with credit enhancements in the form of letters of credit and guarantees of debt obligations. As a cooperative, CFC is owned by and exclusively serves its membership, which consists of not-for-profit entities or subsidiaries or affiliates of not-for-profit entities. CFC is exempt from federal income taxes.

National Cooperative Services Corporation (“NCSC”) is a taxable cooperative incorporated in 1981 in the District of Columbia as a member-owned cooperative association. NCSC’s principal purpose is to provide financing to members of CFC, entities eligible to be members of CFC and the for-profit and nonprofit entities that are owned, operated or controlled by or provide significant benefit to certain members of CFC. NCSC’s membership consists of distribution systems, power supply systems and statewide and regional associations that are members of CFC. CFC is the primary source of funding for NCSC and manages NCSC’s business operations under a management agreement that is automatically renewable on an annual basis unless terminated by either party. NCSC pays CFC a fee and, in exchange, CFC reimburses NCSC for loan losses under a guarantee agreement. As a taxable cooperative, NCSC pays income tax based on its reported taxable income and deductions. NCSC is headquartered with CFC in Dulles, Virginia.

Rural Telephone Finance Cooperative (“RTFC”) is a taxable Subchapter T cooperative association originally incorporated in South Dakota in 1987 and reincorporated as a member-owned cooperative association in the District of Columbia in 2005. RTFC’s principal purpose is to provide financing for its rural telecommunications members and their affiliates. RTFC’s membership consists of a combination of not-for-profit and for-profit entities. CFC is the sole lender to and manages the business operations of RTFC through a management agreement that is automatically renewable on an annual basis unless terminated by either party. Under a guarantee agreement, RTFC pays CFC a fee and, in exchange, CFC reimburses RTFC for loan losses. As permitted under Subchapter T of the Internal Revenue Code, RTFC pays income tax based on its net income, excluding patronage-sourced earnings allocated to its patrons. RTFC is headquartered with CFC in Dulles, Virginia.

Basis of Presentation and Use of Estimates

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”). The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts and related disclosures. The most significant estimates and assumptions involve establishing the allowance for loan losses and determining the fair

value of financial instruments and other assets and liabilities. While management makes its best judgment, actual amounts or results could differ from these estimates. Certain reclassifications have been made to previously reported amounts to conform to the current-period presentation.

#### Principles of Consolidation

Our accompanying consolidated financial statements include the accounts of CFC, RTFC, NCSC and subsidiaries created and controlled by CFC to hold foreclosed assets. All intercompany balances and transactions have been eliminated. We consolidate entities in which CFC has a controlling financial interest. We determine whether CFC has a controlling financial interest in an entity by first evaluating whether the entity is a voting interest entity or a variable interest entity (“VIE”). CFC established limited liability corporations and partnerships to hold foreclosed assets resulting from defaulted loans or bankruptcy. CFC owns and controls all of these entities and, therefore, consolidates their financial results. CFC presents the

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

companies established to hold foreclosed assets in one line on the consolidated balance sheets and the consolidated statements of operations. Unless stated otherwise, references to “we,” “our” or “us” relate to CFC and its consolidated entities.

#### Variable Interest Entities

A VIE is an entity that has a total equity investment at risk that is not sufficient to finance its activities without additional subordinated financial support provided by another party, or where the group of equity holders does not have: (i) the ability to make decisions about the entity’s activities that most significantly impact its economic performance; (ii) the obligation to absorb the entity’s expected losses; or (iii) the right to receive the entity’s expected residual returns.

NCSC and RTFC meet the definition of variable interest entities because they do not have sufficient equity investment at risk to finance their activities without additional financial support. When evaluating an entity for possible consolidation, we must determine whether or not we have a variable interest in the entity. If it is determined that we do not have a variable interest in the entity, no further analysis is required and we do not consolidate the entity. If we have a variable interest in the entity, we must evaluate whether we are the primary beneficiary based on an assessment of quantitative and qualitative factors. We are considered the primary beneficiary holder if we have a controlling financial interest in the VIE that provides (i) the power to direct the activities of the VIE that most significantly impact the VIE’s economic performance and (ii) the obligation to absorb losses of the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE. We consolidate the results of NCSC and RTFC with CFC because CFC is the primary beneficiary holder.

#### Cash and Cash Equivalents

Cash, certificates of deposit, due from banks and other investments with original maturities of less than 90 days are classified as cash and cash equivalents.

#### Restricted Cash

Restricted cash consists of cash and cash equivalents for which the use is contractually restricted.

#### Time Deposits

Time deposits are deposits that we make with financial institutions in interest-bearing accounts. These deposits have a maturity of less than one year as of the reporting date and are valued at carrying value, which approximates fair value.

#### Investment Securities Available for Sale

Our investment securities, which are classified as available for sale, consist of investments in Federal Agricultural Mortgage Corporation (“Farmer Mac”) Series A Common Stock and Farmer Mac Series A, Series B and Series C Non-Cumulative Preferred Stock. Available-for-sale securities are carried at fair value with unrealized gains and losses recorded as a component of accumulated other comprehensive income. We regularly evaluate our investment securities whose fair value has declined below the amortized cost to assess whether the decline in fair value is other than temporary. We recognize any other-than-temporary impairment amounts in earnings.

#### Loans to Members

Loans to members are classified as held for investment and reported at amortized cost, which is measured based on the outstanding principal balance net of unamortized deferred loan origination costs. Deferred loan origination costs are amortized using the straight-line method, which approximates the effective interest method, over the life of the loan as a reduction to interest income.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Allowance for Loan Losses

We maintain an allowance for loan losses at a level estimated by management to provide for probable losses inherent in the loan portfolio. The allowance for loan losses is reported separately on the consolidated balance sheet, and the provision for loan losses is reported as a separate line item on the consolidated statement of operations.

We review the estimates and assumptions used in the calculations of the allowance for loan losses on a quarterly basis. The estimate of the allowance for loan losses is based on a review of the composition of the loan portfolio, past loss experience, specific problem loans, current economic conditions, available market data and/or projection of future cash flows and other pertinent factors that in management's judgment may contribute to incurred losses. The allowance is based on estimates and, accordingly, actual losses may differ from the allowance amount. The methodology used to calculate the allowance for loan losses is summarized below.

The allowance for loan losses is calculated by dividing the portfolio into two categories of loans:

- (1) the collective loan portfolio, which consists of loans that are performing according to the contractual agreements; and
- (2) the impaired portfolio, which consists of loans that (i) are not currently performing or (ii) for various reasons we do not expect to collect all amounts as and when due and payable under the loan agreement or (iii) are performing according to a restructured loan agreement, but as a result of the troubled debt restructuring are required to be classified as impaired.

Collective Allowance

The collective, or general, loan portfolio consists of loans not specifically identified in the impaired category. We disaggregate the loans in the general portfolio by company: CFC, RTFC and NCSC. We further disaggregate the CFC loan portfolio by member class: distribution, power supply and statewide and associates.

We use the following factors to determine the allowance for loan losses for the general portfolio category:

Internal risk ratings system. We maintain risk ratings for our borrowers that are updated at least annually and are based on the following:

- general financial condition of the borrower;
- our judgment of the quality of the borrower's management;
- our judgment of the borrower's competitive position within its service territory and industry;
- our estimate of the potential impact of proposed regulation and litigation; and
- other factors specific to individual borrowers or classes of borrowers.

S&P Global Inc. ("S&P") historical utility sector default table. The table provides expected default rates for the utility sector based on rating level and the remaining maturity. We correlate our internal risk ratings to the ratings used in the utility sector default table. We use the default table to assist in estimating our allowance for loan losses because we

have limited history from which to develop loss expectations.

• **Loss Emergence Period.** Based on the estimated time between the loss-causing event(s) and the date that we charge off the unrecoverable portion of the loan.

**Recovery rates.** Estimated recovery rates are based on our historical recovery experience by member class calculated by comparing loan balances at the time of default to the total loss recorded on the loan. We have been lending to our electric cooperative members since our incorporation in 1969.

Management also evaluates certain qualitative factors, such as current economic and other conditions and trends that may affect the collectibility of our loan portfolio but are not yet reflected in our model-generated allowance for loan losses and applies judgment to assess the impact of these factors on the allowance.



NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Specific Allowance

A loan is considered to be impaired when we do not expect to collect all principal and interest payments as scheduled by the original loan terms, other than an insignificant delay or an insignificant shortfall in amount. Factors considered in determining impairment may include, but are not limited to:

- the review of the borrower's audited financial statements and interim financial statements if available,
- the borrower's payment history,
- communication with the borrower,
- economic conditions in the borrower's service territory,
- pending legal action involving the borrower,
- restructure agreements between us and the borrower and
- estimates of the value of the borrower's assets that have been pledged as collateral to secure our loans.

We generally measure impairment for individually impaired loans based on the difference between the recorded investment of the loan and the present value of the expected future cash flows discounted at the loan's effective interest rate. If the loan is collateral dependent, we measure impairment based upon the fair value of the underlying collateral, which we determine based on the current fair value of the collateral less estimated selling costs. Loans are considered to be collateral dependent if repayment of the loan is expected to be provided solely by the underlying collateral and there are no other available and reliable sources of repayment.

In calculating the impairment on a loan, the estimates of the expected future cash flows or collateral value are the key estimates made by management. Changes in the estimated future cash flows or collateral value affect the amount of the calculated impairment. The change in cash flows required to make the change in the calculated impairment material will be different for each borrower and depend on the period covered, the effective interest rate at the time the loan became impaired and the amount of the loan outstanding. Estimates are not used to determine our investment in the receivables or the discount rate since, in all cases, the investment is equal to the loan balance outstanding at the reporting date, and the discount rate is equal to the effective interest rate on the loan at the time the loan became impaired.

We recognize interest income on impaired loans on a case-by-case basis. An impaired loan to a borrower that is nonperforming will typically be placed on nonaccrual status and we will reverse all accrued and unpaid interest. We generally apply all cash received during the nonaccrual period to the reduction of principal, thereby foregoing interest income recognition. Interest income may be recognized on an accrual basis for restructured impaired loans where the borrower is performing and is expected to continue to perform based on agreed-upon terms. All of our restructured loans are troubled debt restructurings.

All loans are written off in the period that it becomes evident that collectability is highly unlikely; however, our efforts to recover all charged-off amounts may continue. The determination to write off all or a portion of a loan

balance is made based on various factors on a case-by-case basis including, but not limited to, cash flow analysis and the fair value of collateral securing the borrower's loans.

#### Unadvanced Loan Commitments

Unadvanced commitments represent amounts for which we have approved and executed loan contracts, but the funds have not been advanced. The majority of the unadvanced commitments reported represent amounts that are subject to material adverse change clauses at the time of the loan advance. Prior to making an advance on these facilities, we would confirm that there has been no material adverse change in the business or condition, financial or otherwise, of the borrower since the time the loan was approved and confirm that the borrower is currently in compliance with loan terms and conditions. The remaining unadvanced commitments relate to line of credit loans that are not subject to a material adverse change clause at the time of each loan advance. As such, we would be required to advance amounts on these committed facilities as long as the borrower is in compliance with the terms and conditions of the loan commitment.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Unadvanced loan commitments related to line of credit loans are typically for periods not to exceed five years and are generally revolving facilities used for working capital and backup liquidity purposes. Historically, we have experienced a very low utilization rate on line of credit loan facilities, whether or not there is a material adverse change clause. Since we generally do not charge a fee on the unadvanced portion of the majority of our loan facilities, our borrowers will typically request long-term facilities to fund construction work plans and other capital expenditures for periods of up to five years and draw down on the facility over that time. In addition, borrowers will typically request an amount in excess of their immediate estimated loan requirements to avoid the expense related to seeking additional loan funding for unexpected items. These factors contribute to our expectation that the majority of the unadvanced loan commitments will expire without being fully drawn upon and that the total unadvanced amount does not necessarily represent future cash funding requirements.

#### Reserve for Unadvanced Loan Commitments

We maintain a reserve for unadvanced loan commitments and committed lines of credit. This reserve is included as a component of other liabilities on our consolidated balance sheet and changes in the reserve is included in other non-interest expense on our consolidated statements of operations. Our estimate of the reserve for potential losses on these commitments takes into consideration various factors, including the existence of a material adverse change clause, the historical utilization of the committed lines of credit, the probability of funding, historical loss experience on unadvanced loan commitments and other inputs and management judgment consistent with the methodology used to determine our allowance for loan losses.

#### Guarantee Liability

We maintain a guarantee liability that represents our contingent and noncontingent exposure related to guarantees and standby liquidity obligations associated with our members' debt. The guarantee liability is included in the other liabilities line item on the consolidated balance sheet, and the provision for guarantee liability is reported in non-interest expense as a separate line item on the consolidated statement of operations.

The contingent portion of the guarantee liability represents management's estimate of our exposure to losses within the guarantee portfolio. The methodology used to estimate the contingent guarantee liability is consistent with the methodology used to determine the allowance for loan losses.

We record a noncontingent guarantee liability for all new or modified guarantees since January 1, 2003. Our noncontingent guarantee liability represents our obligation to stand ready to perform over the term of our guarantees and liquidity obligations that we have entered into or modified since January 1, 2003. Our noncontingent obligation is estimated based on guarantee and liquidity fees charged for guarantees issued, which represents management's estimate of the fair value of our obligation to stand ready to perform. The fees are deferred and amortized using the straight-line method into interest income over the term of the guarantee.

## Nonperforming Loans

We classify loans as nonperforming when any one of the following criteria is met:

- interest or principal on the loan is past due 90 days or more;
- as a result of court proceedings, the collection of interest or principal based on the original contractual terms is not expected; or
- the full and timely collection of interest or principal is otherwise uncertain.

A loan is considered past due if a full payment of principal and interest is not received within 30 days of its due date. Once a borrower is classified as nonperforming, we typically place the loan on nonaccrual status and reverse any accrued and unpaid interest recorded during the period in which the borrower stopped performing. We generally apply all cash received during the nonaccrual period to the reduction of principal, thereby foregoing interest income recognition. The decision to return a loan to accrual status is determined on a case-by-case basis.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Fixed Assets

Fixed assets are recorded at cost less accumulated depreciation. We recognize depreciation expense on a straight-line basis over the estimated useful lives of the fixed asset categories, which range from 3 to 40 years. The table below presents the components of fixed assets. CFC owns its headquarters facility in Loudoun County, Virginia, which is presented in the building and building equipment category below. We recognized depreciation expense of \$7 million, \$7 million and \$6 million in fiscal year 2017, 2016 and 2015, respectively.

	May 31,	
(Dollars in thousands)	2017	2016
Building and building equipment	\$50,236	\$50,156
Furniture and fixtures	5,852	5,455
Computer software and hardware	40,469	36,378
Other	1,034	1,018
Depreciable fixed assets	97,591	93,007
Less: Accumulated depreciation	(41,274 )	(35,592 )
Net depreciable fixed assets	56,317	57,415
Land	37,847	37,847
Software development	28,096	17,301
Fixed assets, net	\$122,260	\$112,563

Foreclosed Assets

Foreclosed assets acquired through our lending activities in satisfaction of indebtedness may be held in operating entities created and controlled by CFC and presented separately in our consolidated balance sheets under foreclosed assets, net. These assets are initially recorded at estimated fair value as of the date of acquisition. Subsequent to acquisition, foreclosed assets not classified as held for sale are evaluated for impairment and the results of operations and any impairment are reported on our consolidated statements of operations under results of operations of foreclosed assets. When foreclosed assets meet the accounting criteria to be classified as held for sale, they are recorded at the lower of cost or fair value less estimated costs to sell at the date of transfer, with the amount at the date of transfer representing the new cost basis. Subsequent changes are recognized in our consolidated statements of operations under results of operations of foreclosed assets. We also review foreclosed assets classified as held for sale each reporting period to determine whether the existing carrying amounts are fully recoverable in comparison to estimated fair values. We did not carry any foreclosed assets on our consolidated balance sheet as of May 31, 2017.

Debt

We report debt at cost net of unamortized issuance costs and discounts or premiums. Issuance costs, discounts and premiums are deferred and amortized into interest expense using the effective interest method or a method approximating the effective interest method over the legal maturity of each bond issue. Short-term borrowings consist

of borrowings with an original contractual maturity of one year or less and do not include the current portion of long-term debt. Borrowings with an original contractual maturity of greater than one year are classified as long-term debt.

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NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Derivative Instruments

We are an end user of derivative financial instruments and do not engage in derivative trading. We use derivatives, primarily interest rate swaps and treasury rate locks, to manage interest rate risk. Derivatives may be privately negotiated contracts, which are often referred to as over-the-counter (“OTC”) derivatives, or they may be listed and traded on an exchange. We generally engage in OTC derivative transactions.

In accordance with the accounting standards for derivatives and hedging activities, we record derivative instruments at fair value as either a derivative asset or derivative liability on our consolidated balance sheets. We report derivative asset and liability amounts on a gross basis based on individual contracts, which does not take into consideration the effects of master netting agreements or collateral netting. Derivatives in a gain position are reported as derivative assets on our consolidated balance sheets, while derivatives in a loss position are reported as derivative liabilities. Accrued interest related to derivatives is reported on our consolidated balance sheets as a component of either accrued interest receivable or accrued interest payable.

If we do not elect hedge accounting treatment, changes in the fair value of derivative instruments, which consist of net accrued periodic derivative cash settlements and derivative forward value amounts, are recognized in our consolidated statements of operations under derivative gains (losses). If we elect hedge accounting treatment for derivatives, we formally document, designate and assess the effectiveness of the hedge relationship. Changes in the fair value of derivatives designated as qualifying fair value hedges are recorded in earnings together with offsetting changes in the fair value of the hedged item and any related ineffectiveness. Changes in the fair value of derivatives designated as qualifying cash flow hedges are recorded as a component of other comprehensive income (“OCI”), to the extent that the hedge relationships are effective, and reclassified from accumulated other comprehensive income (“AOCI”) to earnings using the effective interest method over the term of the forecasted transaction. Any ineffectiveness in the hedging relationship is recognized as a component of derivative gains (losses) in our consolidated statement of operations.

We generally do not designate interest rate swaps, which represent the substantial majority of our derivatives, for hedge accounting. Accordingly, changes in the fair value of interest rate swaps are reported in our consolidated statements of operations under derivative gains (losses). Net periodic cash settlements related to interest rate swaps are classified as an operating activity in our consolidated statements of cash flows.

We typically designate treasury rate locks as cash flow hedges of forecasted debt issuances. Accordingly, changes in the fair value of the derivative instruments are recorded as a component of OCI and reclassified to interest expense when the forecasted transaction occurs using the effective interest method. Any ineffectiveness in the hedging relationship is recognized as a component of derivative gains (losses) in our consolidated statements of operations.

At June 1, 2001, as a result of the adoption of the derivative accounting guidance that required derivatives to be reported at fair value on the balance sheet, we recorded a transition adjustment net loss in AOCI. The transition adjustment net loss is being reclassified into earnings and reported as a component of derivative gains (losses) in our consolidated statements of operations. We expect to continue to reclassify the remaining balance of the transition

adjustment into earnings through 2029.

We did not have any derivatives designated as accounting hedges during fiscal year 2017, 2016 or 2015.

#### Fair Value Valuation Processes

We carry certain assets and liabilities at fair value, including available-for-sale investment securities and derivatives. We use fair value measurements to record fair value adjustments for certain assets and liabilities and to determine fair value disclosures. Fair value is defined as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date (also referred to as an exit price). We have various processes and controls in place to ensure that fair value is reasonably estimated. We consider observable prices in the principal market in our valuations where possible. Fair value estimates were developed at the reporting date and may not

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NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

necessarily be indicative of amounts that could ultimately be realized in a market transaction at a future date. With the exception of redeeming debt under early redemption provisions, terminating derivative instruments under early termination provisions and allowing borrowers to prepay their loans, we held and intend to hold all financial instruments to maturity excluding common stock and preferred stock investments that have no stated maturity.

#### Fair Value Hierarchy

The fair value accounting guidance provides a three-level fair value hierarchy for classifying financial instruments. This hierarchy is based on the markets in which the assets or liabilities trade and whether the inputs to the valuation techniques used to measure fair value are observable or unobservable. Fair value measurement of a financial asset or liability is assigned a level based on the lowest level of any input that is significant to the fair value measurement in its entirety. The three levels of the fair value hierarchy are summarized below:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2: Observable market-based inputs, other than quoted prices in active markets for identical assets or liabilities
- Level 3: Unobservable inputs

The degree of management judgment involved in determining the fair value of a financial instrument is dependent upon the availability of quoted prices in active markets or observable market parameters. When quoted prices and observable data in active markets are not fully available, management's judgment is necessary to estimate fair value. Changes in market conditions, such as reduced liquidity in the capital markets or changes in secondary market activities, may reduce the availability and reliability of quoted prices or observable data used to determine fair value.

#### Membership Fees

Members are charged a one-time membership fee based on member class. CFC distribution system members, power supply system members and national associations of cooperatives pay a \$1,000 membership fee. CFC service organization members pay a \$200 membership fee and CFC associates pay a \$1,000 fee. RTFC voting members pay a \$1,000 membership fee and RTFC associates pay a \$100 fee. NCSC members pay a \$100 membership fee. Membership fees are accounted for as members' equity.

#### Financial Instruments with Off-Balance Sheet Risk

In the normal course of business, we are a party to financial instruments with off-balance sheet risk to meet the financing needs of our member borrowers. These financial instruments include committed lines of credit, standby letters of credit and guarantees of members' obligations.

#### Interest Income

Interest income on loans is recognized using the effective interest method. The following table presents interest income, categorized by loan and investment type, for fiscal years 2017, 2016 and 2015.

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(Dollars in thousands)	Year Ended May 31,		
	2017	2016	2015
Interest income on loans and investments:			
Long-term fixed-rate loans <sup>(1)</sup>	\$980,173	\$959,701	\$898,181
Long-term variable-rate loans	19,902	19,858	20,184
Line of credit loans	25,389	24,864	26,411
TDR loans <sup>(2)</sup>	905	512	15
Nonperforming loans	—	142	—
Investments	11,347	8,647	7,933
Other income, net <sup>(3)</sup>	(1,082 )	(1,088 )	252
Total interest income	\$1,036,634	\$1,012,636	\$952,976

<sup>(1)</sup> Includes loan conversion fees, which are deferred and recognized in interest income using the effective interest method.

<sup>(2)</sup> Troubled debt restructuring (“TDR”) loans.

<sup>(3)</sup> Consists of late payment fees and net amortization of deferred loan fees and loan origination costs.

Deferred income consists primarily of deferred loan conversion fees, which totaled \$68 million and \$71 million as of May 31, 2017 and 2016, respectively. These fees are presented as deferred income on our consolidated balance sheets and recognized in interest income using the effective interest method.

#### Interest Expense

The following table presents interest expense, categorized by debt product type, for fiscal years 2017, 2016 and 2015.

(Dollars in thousands)	Year Ended May 31,		
	2017	2016	2015
Interest expense on debt: <sup>(1)(2)(3)</sup>			
Short-term borrowings	\$26,684	\$14,728	\$14,374
Medium-term notes	99,022	86,270	71,739
Collateral trust bonds	340,854	333,338	315,106
Long-term notes payable	177,929	165,820	151,763
Subordinated deferrable debt	37,657	21,245	19,143
Subordinated certificates	59,592	60,449	63,559
Total interest expense	\$741,738	\$681,850	\$635,684

<sup>(1)</sup> Represents interest expense and the amortization of discounts on debt.

<sup>(2)</sup> Includes underwriter’s fees, legal fees, printing costs and certain accounting fees, which are deferred and recognized in interest expense using the effective interest method. Also includes issuance costs related to dealer commercial paper, which are recognized immediately as incurred.

<sup>(3)</sup> Includes fees related to funding activities, including fees paid to banks participating in our committed bank revolving line of credit agreements. Amounts are recognized as incurred or amortized on a straight-line basis over the life of the agreement.

#### Early Extinguishment of Debt

We redeem outstanding debt early from time to time to manage liquidity and interest rate risk. When we redeem outstanding debt early, we recognize a gain or loss related to the difference between the amount paid to redeem the debt and the net book

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value of the extinguished debt as a component of non-interest expense in the gain (loss) on early extinguishment of debt line item.

#### Income Taxes

While CFC is exempt under Section 501(c)(4) of the Internal Revenue Code, it is subject to tax on unrelated business taxable income. NCSC is a taxable cooperative that pays income tax on the full amount of its reportable taxable income and allowable deductions. RTFC is a taxable cooperative under Subchapter T of the Internal Revenue Code and is not subject to income taxes on income from patronage sources that is allocated to its borrowers, as long as the allocation is properly noticed and at least 20% of the amount allocated is retired in cash prior to filing the applicable tax return.

The income tax benefit (expense) recorded in the consolidated statement of operations represents the income tax benefit (expense) at the applicable combined federal and state income tax rates resulting in a statutory tax rate. The statutory tax rate for NCSC and RTFC was 38% and 40%, respectively, for fiscal year 2017. The statutory tax rate for both NCSC and RTFC was 38% for fiscal years 2016 and 2015. Substantially all of the income tax expense recorded in our consolidated statements of operations relates to NCSC. NCSC had a deferred tax asset of \$4 million and \$6 million as of May 31, 2017 and 2016, respectively, primarily arising from differences in the accounting and tax treatment for derivatives.

#### Accounting Standards Adopted in Fiscal Year 2017

##### Amendments to the Consolidation Analysis

In February 2015, the Financial Accounting Standard Board (“FASB”) issued Accounting Standards Update (“ASU”) 2015-02, Amendments to the Consolidation Analysis, which makes several modifications to the consolidation guidance for variable interest entities (“VIEs”) and general partners’ investments in limited partnerships, as well as modifications to the evaluation of whether limited partnerships are VIEs or voting interest entities. The new guidance also amends the consolidation analysis for certain investment funds and excludes certain money market funds. We were required to adopt this guidance either retrospectively or on a modified retrospective basis at the beginning of fiscal year 2017. We adopted this guidance on a modified retrospective basis effective June 1, 2016. The adoption had no impact on our consolidated financial statements.

##### Recently Issued But Not Yet Adopted Accounting Standards

##### Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments

In June 2016, FASB issued ASU 2016-13, Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments, which changes the accounting for credit losses on certain financial assets to an expected loss model from the incurred loss model currently in use. The new guidance will result in earlier recognition of credit

losses based on measuring the expected credit losses over the estimated life of financial assets held at each reporting date. The expected loss model will be the basis for determining the allowance for credit losses for loans and leases, unfunded lending commitments, held-to-maturity debt securities and other debt instruments measured at amortized cost. In addition, the new guidance modifies the other-than-temporary impairment model for available-for-sale debt securities to require the recognition of credit losses through a valuation allowance, which allows for the reversal of credit impairments in future periods. The ASU will also require enhanced disclosures to help users of financial statements better understand significant estimates and judgments used in estimating credit losses, as well as the credit quality and underwriting standards of an entity's portfolio. The new standard is effective for fiscal years and interim periods within those fiscal years, beginning after December 15, 2019. Early application will be permitted for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. This update is effective for us on June 1, 2020. Upon adoption, we will be required to record a cumulative-effect adjustment to retained earnings. The impact on our consolidated financial statements from the adoption of this new guidance will depend on the composition and risk profile of our loan portfolio as of the date of adoption. We do not expect to early adopt this guidance.

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Financial Instruments—Overall: Recognition and Measurement of Financial Assets and Financial Liabilities

In January 2016, FASB issued ASU 2016-01, Financial Instruments-Overall: Recognition and Measurement of Financial Assets and Financial Liabilities, which amends certain aspects of the recognition, measurement, presentation and disclosure of certain financial instruments, including equity investments and liabilities measured at fair value under the fair value option. The guidance also updates fair value presentation and disclosure requirements for financial instruments measured at amortized cost. The ASU requires investments in equity securities that do not result in consolidation and are not accounted for under the equity method to be measured at fair value with changes in the fair value recognized through net income, unless one of two available exceptions apply. For financial liabilities where the fair value option has been elected, the portion of the total change in fair value caused by changes in the company's own credit risk is required to be presented separately in OCI. The classification and measurement guidance is effective for public entities in fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. This update will be effective for us on June 1, 2018. Upon adoption, we will be required to reclassify the gain (loss) related to our equity investments classified as available-for-sale from AOCI to retained earnings as a cumulative-effective adjustment and begin recording future changes in fair value in earnings. We had a gain of \$12 million recorded in AOCI for our available-for-sale equity investments as of May 31, 2017. The impact on our consolidated financial statements at adoption will depend on the net unrealized gains (losses) recorded in AOCI for these equity investments as of the date of adoption.

Revenue from Contracts with Customers

In May 2014, FASB issued ASU 2014-09, Revenue from Contracts with Customers, which clarifies the principles for recognizing revenue from contracts with customers and will replace most existing revenue recognition in GAAP when it becomes effective. In July 2015, FASB approved a one year deferral of the effective date of this standard, with a revised effective date for fiscal years beginning after December 15, 2017. The new accounting guidance, which does not apply to financial instruments, will be effective for us June 1, 2018. We do not expect the new guidance to have an impact on our consolidated financial statements, as CFC's primary business and source of revenue is from lending.

NOTE 2—VARIABLE INTEREST ENTITIES

Based on the accounting standards governing consolidations, we are required to consolidate the financial results of NCSC and RTFC because CFC is the primary beneficiary of NCSC and RTFC.

CFC manages the lending activities of NCSC and RTFC. Under separate guarantee agreements, NCSC and RTFC pay CFC a fee to indemnify them against loan losses. CFC is the primary source of funding to and manages the lending activities of NCSC through a management agreement that is automatically renewable on an annual basis unless terminated by either party. NCSC funds its lending programs through loans from CFC or debt guaranteed by CFC. In connection with these guarantees, NCSC must pay a guarantee fee. CFC is the sole lender to and manages the business operations of RTFC through a management agreement that is automatically renewable on an annual basis unless terminated by either party. RTFC funds its lending programs through loans from CFC.

All loans that require NCSC board approval also require CFC board approval. CFC is not a member of NCSC and does not elect directors to the NCSC board. If CFC becomes a member of NCSC, it would control the nomination process for one NCSC director. NCSC members elect directors to the NCSC board based on one vote for each member. NCSC is a service organization member of CFC. All loans that require RTFC board approval also require approval by CFC for funding under RTFC's credit facilities with CFC. CFC is not a member of RTFC and does not elect directors to the RTFC board. RTFC is a non-voting associate of CFC. RTFC members elect directors to the RTFC board based on one vote for each member.

NCSC and RTFC creditors have no recourse against CFC in the event of a default by NCSC and RTFC, unless there is a guarantee agreement under which CFC has guaranteed NCSC or RTFC debt obligations to a third party. CFC had guaranteed \$34 million of NCSC debt, derivative instruments and guarantees with third parties as of May 31, 2017, and CFC's maximum potential exposure for these instruments totaled \$37 million. The maturities for NCSC obligations



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guaranteed by CFC extend through 2031. Guarantees of NCSC debt and derivative instruments are not presented in the amount in “Note 13—Guarantees,” as the debt and derivatives are reported on the consolidated balance sheets. CFC guaranteed \$2 million of RTFC guarantees with third parties as of May 31, 2017. The maturities for RTFC obligations guaranteed by CFC extend through July 2017. All CFC loans to NCSC and RTFC are secured by all assets and revenue of NCSC and RTFC. NCSC had total assets of \$623 million including loans outstanding of \$614 million, and RTFC had total assets of \$450 million including loans outstanding to members of \$354 million as of May 31, 2017. CFC had committed to provide up to \$3,000 million of credit to NCSC, of which \$630 million was outstanding, representing \$596 million of outstanding loans and \$34 million of credit enhancements as of May 31, 2017. CFC had committed to lend RTFC up to \$2,500 million, of which \$336 million was outstanding as of May 31, 2017.

The following table presents, by component, our consolidated membership after taking into consideration systems that are members of both CFC and NCSC and eliminating memberships between CFC, NCSC and RTFC as of May 31, 2017.

	May 31, 2017
Members:	
Distribution systems	839
Power supply systems	70
Telecommunications members	488
Statewide and regional associations	63
National association of cooperatives	1
Total members	1,461
Associates	219
Total	1,680

Associates are eligible to borrow; however, they are not eligible to vote on matters submitted to the membership for approval. Our members and associates are located in 49 states, the District of Columbia, American Samoa and Guam. All references to members within this document include members and associates.

NOTE 3—INVESTMENT SECURITIES

Our investment securities consist of holdings of Farmer Mac preferred and common stock. The following tables present the amortized cost, gross unrealized gains and losses and fair value of our investment securities, all of which were classified as available for sale, as of May 31, 2017 and 2016.

(Dollars in thousands)	May 31, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Farmer Mac—Series A Non-Cumulative Preferred Stock	\$ 30,000	\$ 1,585	\$ —	—\$31,585
Farmer Mac—Series B Non-Cumulative Preferred Stock	25,000	1,940	—	26,940

Farmer Mac—Series C Non-Cumulative Preferred Stock	25,000	4,150	—	29,150
Farmer Mac—Class A Common Stock	538	4,341	—	4,879
Total investment securities, available-for-sale	\$80,538	\$ 12,016	\$	—\$92,554

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(Dollars in thousands)	May 31, 2016			Fair Value
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	
Farmer Mac—Series A Non-Cumulative Preferred Stock	\$30,000	\$ 780	\$ —	—\$30,780
Farmer Mac—Series B Non-Cumulative Preferred Stock	25,000	2,600	—	27,600
Farmer Mac—Series C Non-Cumulative Preferred Stock	25,000	1,650	—	26,650
Farmer Mac—Class A Common Stock	538	2,372	—	2,910
Total investment securities, available-for-sale	\$80,538	\$ 7,402	\$ —	—\$87,940

We did not have any investment securities in an unrealized loss position as of May 31, 2017 or May 31, 2016. For additional information regarding the unrealized gains (losses) recorded on our available-for-sale investment securities, see “Note 11—Equity—Accumulated Other Comprehensive Income.”

NOTE 4—LOANS AND COMMITMENTS

Loans that management has the intent and ability to hold for the foreseeable future or until maturity or payoff are considered loans held for investment. The loans presented on our consolidated balance sheet are classified and accounted for as held for investment. Loans held for investment are carried at the outstanding unpaid principal balance, net of unamortized loan origination costs.

We offer fixed- and variable-rate loans and line of credit loans. Borrowers may choose between a fixed interest rate or a variable interest rate for periods of one to 35 years. When a selected fixed interest rate term expires, the borrower may select another fixed-rate term or a variable rate. We consider these fixed- and variable-rate loans, which have repricing terms, as long-term loans. Collateral and security requirements for advances on loan commitments are identical to those required at the time of the initial loan approval.

The following table presents the outstanding principal balance of loans to members, including deferred loan origination costs, and unadvanced loan commitments by loan type and member class, as of May 31, 2017 and 2016.

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(Dollars in thousands)	May 31, 2017		2016	
	Loans Outstanding	Unadvanced Commitments (1)	Loans Outstanding	Unadvanced Commitments (1)
Loan type: (2)				
Long-term loans:				
Long-term fixed-rate loans	\$22,136,690	\$—	\$21,390,576	\$—
Long-term variable-rate loans	847,419	4,802,319	757,500	4,508,562
Total long-term loans	22,984,109	4,802,319	22,148,076	4,508,562
Line of credit loans	1,372,221	7,772,655	1,004,441	8,696,448
Total loans outstanding (3)	24,356,330	12,574,974	23,152,517	13,205,010
Deferred loan origination costs	10,714	—	10,179	—
Loans to members	\$24,367,044	\$ 12,574,974	\$23,162,696	\$ 13,205,010
Member class:(2)				
CFC:				
Distribution	\$ 18,825,366	\$ 8,295,146	\$ 17,674,335	\$ 8,967,730
Power supply	4,504,791	3,276,113	4,401,185	3,191,873
Statewide and associate	57,830	144,406	54,353	155,129
CFC total(3)	23,387,987	11,715,665	22,129,873	12,314,732
NCSC	613,924	584,944	680,802	643,621
RTFC	354,419	274,365	341,842	246,657
Total loans outstanding(3)	\$24,356,330	\$ 12,574,974	\$23,152,517	\$ 13,205,010

(1) The interest rate on unadvanced loan commitments is not set until drawn; therefore, the long-term unadvanced loan commitments have been classified in this table as variable-rate unadvanced loan commitments. However, at the time of the advance, the borrower may select a fixed or a variable rate on the new loan.

(2) Includes TDR loans.

(3) Represents the unpaid principal balance excluding deferred loan origination costs.

#### Unadvanced Loan Commitments

Unadvanced loan commitments represent approved and executed loan contracts for which funds have not been advanced to

borrowers. The following table summarizes the available balance under unadvanced loan commitments as of May 31, 2017 and the related maturities, by fiscal year and thereafter, by loan type:

(Dollars in thousands)	Available Balance	Notional Maturities of Unadvanced Loan Commitments					Thereafter
		2018	2019	2020	2021	2022	

Line of credit loans	\$7,772,655	\$4,489,826	\$871,557	\$791,825	\$750,419	\$859,028	\$10,000
Long-term loans	4,802,319	584,142	1,005,835	718,393	751,150	1,717,514	25,285
Total	\$12,574,974	\$5,073,968	\$1,877,392	\$1,510,218	\$1,501,569	\$2,576,542	\$35,285

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Unadvanced Loan Commitments—Conditional

The substantial majority of our line of credit commitments and all of our unadvanced long-term loan commitments include material adverse change clauses. Unadvanced loan commitments subject to material adverse change clauses totaled \$9,973 million and \$10,757 million as of May 31, 2017 and 2016, respectively. Prior to making an advance on these facilities, we confirm that there has been no material adverse change in the business or condition, financial or otherwise, of the borrower since the time the loan was approved and confirm that the borrower is currently in compliance with loan terms and conditions. In some cases, the borrower's access to the full amount of the facility is further constrained by the designated purpose, imposition of borrower-specific restrictions or by additional conditions that must be met prior to advancing funds.

Unadvanced Loan Commitments—Unconditional

Unadvanced loan commitments not subject to material adverse change clauses at the time of each advance consisted of unadvanced committed lines of credit totaling \$2,602 million and \$2,448 million as of May 31, 2017 and 2016, respectively. As such, we are required to advance amounts on these committed facilities as long as the borrower is in compliance with the terms and conditions of the facility.

The following table summarizes the available balance under unconditional committed lines of credit and the related maturities, by fiscal year as of May 31, 2017.

	Available Balance	Notional Maturities of Unconditional Committed Lines of Credit				
		2018	2019	2020	2021	2022
(Dollars in thousands)						
Committed lines of credit	\$2,602,262	\$300,106	\$567,270	\$548,408	\$486,900	\$699,578

Loan Sales

We transfer, from time to time, loans to third parties under our direct loan sale program. Our transfer of loans, which are at par value, meets the applicable accounting criteria for sale accounting. Accordingly, we remove the loans from our consolidated balance sheets when control has been surrendered and recognize a gain or loss. Because the loans are sold at par, we record immaterial losses on the sale of these loans for unamortized deferred loan origination costs. We retain the servicing performance obligations on these loans and recognize related servicing fees on an accrual basis over the period for which servicing activity is provided, as we believe the servicing fee represents adequate compensation. We do not hold any continuing interest in the loans sold to date other than servicing performance obligations. We have no obligation to repurchase loans from the purchaser, except in the case of breaches of representations and warranties.

We sold CFC loans with outstanding balances totaling \$58 million, \$99 million and \$26 million at par for cash in fiscal year 2017, 2016 and 2015, respectively. We recorded immaterial losses upon the sale of these loans, attributable to the unamortized deferred loan origination costs associated with the transferred loans.

### Credit Quality

We closely monitor loan performance trends to manage and evaluate our credit risk exposure. We seek to provide a balance between meeting the credit needs of our members while also ensuring the sound credit quality of our loan portfolio. Payment status and internal risk rating trends are key indicators, among others, of the level of credit risk within our loan portfolio.

As part of our strategy in managing our credit risk exposure, we entered into a long-term standby purchase commitment agreement with Farmer Mac. Under this agreement, we may designate certain long-term loans to be covered under the commitment, subject to approval by Farmer Mac, and in the event any such loan later goes into payment default for at least 90 days, upon request by us, Farmer Mac must purchase such loan at par value. The aggregate unpaid principal balance of designated and Farmer Mac approved loans was \$843 million and \$926 million as of May 31, 2017 and 2016, respectively.

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Under the agreement, we are required to pay Farmer Mac a monthly fee based on the unpaid principal balance of loans covered under the purchase commitment. No loans had been put to Farmer Mac for purchase, pursuant to this agreement, as of May 31, 2017. Also, long-term loans totaling \$167 million and \$174 million were guaranteed by the Rural Utilities Service ("RUS") as of May 31, 2017 and 2016, respectively.

Payment Status of Loans

The tables below present the payment status of loans outstanding by member class as of May 31, 2017 and 2016.

		May 31, 2017					
(Dollars in thousands)	Current	30-89 Days Past Due	90 Days or More Past Due (1)	Total Past Due	Total Financing Receivables	Nonaccrual Loans	
CFC:							
Distribution	\$18,825,366	\$ —	\$ —	\$ —	\$18,825,366	\$ —	
Power supply	4,504,791	—	—	—	4,504,791	—	
Statewide and associate	57,830	—	—	—	57,830	—	
CFC total	23,387,987	—	—	—	23,387,987	—	
NCSC	613,924	—	—	—	613,924	—	
RTFC	354,419	—	—	—	354,419	—	
Total loans outstanding	\$24,356,330	\$ —	\$ —	\$ —	\$24,356,330	\$ —	
As a % of total loans	100.00	% —	% —	% —	100.00	% —	%
		May 31, 2016					
(Dollars in thousands)	Current	30-89 Days Past Due	90 Days or More Past Due (1)	Total Past Due	Total Financing Receivables	Nonaccrual Loans	
CFC:							
Distribution	\$17,674,335	\$ —	\$ —	\$ —	\$17,674,335	\$ —	
Power supply	4,401,185	—	—	—	4,401,185	—	
Statewide and associate	54,353	—	—	—	54,353	—	
CFC total	22,129,873	—	—	—	22,129,873	—	
NCSC	680,802	—	—	—	680,802	—	
RTFC	338,336	—	3,506	3,506	341,842	3,506	
Total loans outstanding	\$23,149,011	\$ —	\$3,506	\$3,506	\$23,152,517	\$3,506	



As a % of total loans    99.98            % —% 0.02    % 0.02    % 100.00            % 0.02    %

(1) All loans 90 days or more past due are on nonaccrual status.

#### Internal Risk Ratings of Loans

We evaluate the credit quality of our loans using an internal risk rating system that employs similar criteria for all member classes. Our internal risk rating system is based on a determination of a borrower’s risk of default utilizing both quantitative and qualitative measurements. We have grouped our risk ratings into the categories of pass and criticized based on the criteria below.

(i) Pass: Borrowers that are not experiencing difficulty and/or not showing a potential or well-defined credit weakness.

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(ii) Criticized: Includes borrowers categorized as special mention, substandard and doubtful as described below:

Special mention: Borrowers that may be characterized by a potential credit weakness or deteriorating financial condition that is not sufficiently serious to warrant a classification of substandard or doubtful.

Substandard: Borrowers that display a well-defined credit weakness that may jeopardize the full collection of principal and interest.

Doubtful: Borrowers that have a well-defined weakness and the full collection of principal and interest is questionable or improbable.

Borrowers included in the pass, special mention and substandard categories are generally reflected in the general portfolio of loans. Borrowers included in the doubtful category are reflected in the impaired portfolio of loans. Each risk rating is reassessed annually following the receipt of the borrower's audited financial statements; however, interim risk rating downgrades or upgrades may take place at any time as significant events or trends occur.

The following table presents our loan portfolio by risk rating category and member class based on available data as of May 31, 2017 and 2016.

(Dollars in thousands)	May 31, 2017			2016		
	Pass	Criticized	Total	Pass	Criticized	Total
CFC:						
Distribution	\$18,715,810	\$109,556	\$18,825,366	\$17,640,928	\$33,407	\$17,674,335
Power supply	4,504,791	—	4,504,791	4,401,185	—	4,401,185
Statewide and associate	56,654	1,176	57,830	54,100	253	54,353
CFC total	23,277,255	110,732	23,387,987	22,096,213	33,660	22,129,873
NCSC	612,592	1,332	613,924	678,552	2,250	680,802
RTFC	346,944	7,475	354,419	330,167	11,675	341,842
Total loans outstanding	\$24,236,791	\$119,539	\$24,356,330	\$23,104,932	\$47,585	\$23,152,517

#### Credit Concentration

The service territories of our electric and telecommunications members are located throughout the United States and its territories, including 49 states, the District of Columbia, American Samoa and Guam. Loans outstanding to borrowers in any state or territory did not exceed 15% of total loans outstanding as of May 31, 2017 and 2016. CFC, RTFC and NCSC each have policies limiting the amount of credit that can be extended to individual borrowers or a controlled group of borrowers. The total exposure outstanding to any one borrower or controlled group represented approximately 2% of total loans and guarantees outstanding as of May 31, 2017 and 2016. The 20 largest borrowers included 10 distribution systems, 9 power supply systems and 1 NCSC associate member as of May 31, 2017. The 20 largest borrowers included 11 distribution systems and 9 power supply systems as of May 31, 2016. The following table shows the exposure to the 20 largest borrowers as a percentage of total credit exposure broken down by exposure type and by borrower type as of May 31, 2017 and 2016.



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(Dollars in thousands)	May 31, 2017		2016	
	Amount	%	Amount	%
By exposure type:				
Loans	\$5,749,885	23 %	\$5,638,217	23 %
Guarantees	354,619	1	365,457	2
Total exposure to 20 largest borrowers	6,104,504	24	6,003,674	25
Less: Loans covered under Farmer Mac standby purchase commitment	(351,699 )	(1)	(402,244 )	(2)
Net exposure to 20 largest borrowers	\$5,752,805	23 %	\$5,601,430	23 %
By company:				
CFC	\$5,899,709	23 %	\$5,991,674	25 %
NCSC	204,795	1	12,000	—
Total exposure to 20 largest borrowers	6,104,504	24	6,003,674	25
Less: Loans covered under Farmer Mac standby purchase commitment	(351,699 )	(1)	(402,244 )	(2)
Net exposure to 20 largest borrowers	\$5,752,805	23 %	\$5,601,430	23 %

Allowance for Loan Losses

We maintain an allowance for loan losses at a level estimated by management to provide for probable losses inherent in the loan portfolio as of each balance sheet date. The tables below summarize changes, by company, in the allowance for loan losses as of and for the years ended May 31, 2017, 2016 and 2015.

(Dollars in thousands)	Year Ended May 31, 2017			
	CFC	NCSC	RTFC	Total
Balance as of May 31, 2016	\$24,559	\$3,134	\$5,565	\$33,258
Provision for loan losses	4,781	(224 )	1,421	5,978
Charge-offs	—	—	(2,119 )	(2,119 )
Recoveries	159	—	100	259
Balance as of May 31, 2017	\$29,499	\$2,910	\$4,967	\$37,376
(Dollars in thousands)	Year Ended May 31, 2016			
	CFC	NCSC	RTFC	Total
Balance as of May 31, 2015	\$23,716	\$5,441	\$4,533	\$33,690
Provision for loan losses	629	(2,307 )	1,032	(646 )
Recoveries	214	—	—	214
Balance as of May 31, 2016	\$24,559	\$3,134	\$5,565	\$33,258

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(Dollars in thousands)	Year Ended May 31, 2015			
	CFC	NCSC	RTFC	Total
Balance as of May 31, 2014	\$45,600	\$6,547	\$4,282	\$56,429
Provision for loan losses	(22,098 )	(1,106 )	1,250	(21,954 )
Charge-offs	—	—	(999 )	(999 )
Recoveries	214	—	—	214
Balance as of May 31, 2015	\$23,716	\$5,441	\$4,533	\$33,690

Our allowance for loan losses consists of a specific allowance for loans individually evaluated for impairment and a collective allowance for loans collectively evaluated for impairment. The tables below present, by company, the components of our allowance for loan losses and the recorded investment of the related loans as of May 31, 2017 and 2016.

(Dollars in thousands)	May 31, 2017			
	CFC	NCSC	RTFC	Total
Ending balance of the allowance:				
Collectively evaluated loans	\$29,499	\$2,910	\$3,327	\$35,736
Individually evaluated loans	—	—	1,640	1,640
Total ending balance of the allowance	\$29,499	\$2,910	\$4,967	\$37,376
Recorded investment in loans:				
Collectively evaluated loans	\$23,381,406	\$613,924	\$347,827	\$24,343,157
Individually evaluated loans	6,581	—	6,592	13,173
Total recorded investment in loans	\$23,387,987	\$613,924	\$354,419	\$24,356,330
Loans to members, net <sup>(1)</sup>	\$23,358,488	\$611,014	\$349,452	\$24,318,954

(Dollars in thousands)	May 31, 2016			
	CFC	NCSC	RTFC	Total
Ending balance of the allowance:				
Collectively evaluated loans	\$24,559	\$3,134	\$2,465	\$30,158
Individually evaluated loans	—	—	3,100	3,100
Total ending balance of the allowance	\$24,559	\$3,134	\$5,565	\$33,258
Recorded investment in loans:				
Collectively evaluated loans	\$22,123,157	\$680,802	\$331,244	\$23,135,203
Individually evaluated loans	6,716	—	10,598	17,314
Total recorded investment in loans	\$22,129,873	\$680,802	\$341,842	\$23,152,517
Loans to members, net <sup>(1)</sup>	\$22,105,314	\$677,668	\$336,277	\$23,119,259

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<sup>(1)</sup> Excludes unamortized deferred loan origination costs of \$11 million and \$10 million, as of May 31, 2017 and 2016, respectively.

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Reserve for Unadvanced Commitments

We also maintain a reserve for unadvanced loan commitments at a level estimated by management to provide for probable losses under these commitments as of each balance sheet date. The reserve for these commitments was \$0.1 million as of both May 31, 2017 and 2016.

Impaired Loans

The following table provides information on loans classified as individually impaired loans as of May 31, 2017 and 2016.

(Dollars in thousands)	May 31, 2017		2016	
	Recorded Investment	Related Allowance	Recorded Investment	Related Allowance
With no specific allowance recorded:				
CFC	\$6,581	\$ —	\$6,716	\$ —
With a specific allowance recorded:				
RTFC	6,592	1,640	10,598	3,100
Total impaired loans	\$13,173	\$ 1,640	\$17,314	\$ 3,100

The following table represents the average recorded investment in individually impaired loans and the interest income recognized, by company, for fiscal years ended May 31, 2017, 2016 and 2015.

(Dollars in thousands)	Average Recorded Investment			Interest Income Recognized		
	2017	2016	2015	2017	2016	2015
CFC	\$6,613	\$6,842	\$7,312	\$562	\$390	\$ —
NCSC	—	—	325	—	—	15
RTFC	7,736	9,823	1,438	343	264	—
Total impaired loans	\$14,349	\$16,665	\$9,075	\$905	\$654	\$ 15

Troubled Debt Restructured (“TDR”) Loans

We did not have any loans modified as TDRs during the year ended May 31, 2017. The following table provides a summary of loans modified as TDRs in prior periods, the performance status of these loans and the related unadvanced loan commitments, by member class, as of May 31, 2017 and 2016.





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(Dollars in thousands)	May 31, 2017		Unadvanced Commitments	2016		Unadvanced Commitments
	Loans Outstanding	% of Total Loans		Loans Outstanding	% of Total Loans	
TDR loans:						
Nonperforming TDR loans:						
RTFC	\$—		\$	—\$3,506	0.01%	\$ —
Performing TDR loans:						
CFC/Distribution <sup>(1)</sup>	6,581		—	6,716		—
RTFC	6,592		—	7,092		—
Total performing TDR loans	13,173	0.05%	—	13,808	0.06%	—
Total TDR loans	\$13,173	0.05%	\$	—\$17,314	0.07%	\$ —

<sup>(1)</sup> A borrower in this category also had a line of credit loan outstanding that was classified as performing as of May 31, 2017 and 2016. Unadvanced commitments related to this line of credit loan totaled \$6 million and \$4 million as of May 31, 2017 and 2016, respectively.

As indicated in the table above, we did not have any TDR loans classified as nonperforming as of May 31, 2017. We had TDR loans classified as nonperforming totaling \$4 million as of May 31, 2016.

TDR loans classified as performing totaled \$13 million and \$14 million as of May 31, 2017 and 2016, respectively. These loans were on accrual status as of the respective dates.

#### Nonperforming Loans

In addition to nonperforming TDR loans, we also may have nonperforming loans that have not been modified and classified as a TDR. We did not have any loans classified as nonperforming as of May 31, 2017 and 2016.

The following table shows foregone interest income for loans on nonaccrual status fiscal years ended May 31, 2017, 2016 and 2015.

(Dollars in thousands)	Year Ended		
	May 31, 2017	2016	2015
Performing TDR loans	\$—	\$166	\$532
Nonperforming TDR loans	31	109	—
Nonperforming loans	—	—	123
Total	\$31	\$275	\$655

### Pledging of Loans

We are required to pledge eligible mortgage notes in an amount at least equal to the outstanding balance of our secured debt.

The following table summarizes our loans outstanding as collateral pledged to secure our collateral trust bonds, Clean Renewable Energy Bonds, notes payable to Farmer Mac and notes payable to the Federal Financing Bank and guaranteed by RUS under the Guaranteed Underwriter Program of the USDA (“Guaranteed Underwriter Program”) and the amount of the corresponding debt outstanding as of May 31, 2017 and 2016. See “Note 6—Short-Term Borrowings” and “Note 7—Long-Term Debt” for information on our borrowings.

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(Dollars in thousands)	May 31,	
	2017	2016
Collateral trust bonds:		
2007 indenture:		
Distribution system mortgage notes	\$8,740,572	\$7,246,973
RUS-guaranteed loans qualifying as permitted investments	146,373	151,687
Total pledged collateral	\$8,886,945	\$7,398,660
Collateral trust bonds outstanding	7,697,711	6,747,711
1994 indenture:		
Distribution system mortgage notes	\$263,007	\$968,030
Collateral trust bonds outstanding	225,000	800,000
Farmer Mac:		
Distribution and power supply system mortgage notes	\$2,942,456	\$2,683,806
Notes payable outstanding	2,513,389	2,303,122
Clean Renewable Energy Bonds Series 2009A:		
Distribution and power supply system mortgage notes	\$14,943	\$17,081
Cash	481	—
Total pledged collateral	\$15,424	\$17,081
Notes payable outstanding	13,214	14,871
Federal Financing Bank:		
Distribution and power supply system mortgage notes	\$5,833,515	\$5,248,935
Notes payable outstanding	4,985,748	4,777,404

NOTE 5—FORECLOSED ASSETS

Foreclosed assets consist of operating entities or other assets acquired through lending activities in satisfaction of indebtedness. We had one entity, Caribbean Asset Holdings, LLC (“CAH”), that held foreclosed assets totaling \$103 million as of May 31, 2016. On July 1, 2016, the sale of CAH to ATN VI Holdings, LLC (“Buyer”) was completed. As a result, we did not carry any foreclosed assets on our consolidated balance sheet as of May 31, 2017.

Our net proceeds at closing totaled \$109 million, which represents the purchase price of \$144 million less agreed-upon purchase price adjustments as of the closing date. In connection with the sale, RTFC provided a loan in the amount of \$60 million to Buyer to finance a portion of the transaction. ATN International, Inc., the parent corporation of Buyer, has provided a guarantee on an unsecured basis of Buyer’s obligations to RTFC pursuant to the financing. CFC remains subject to potential indemnification claims, as specified in the Purchase Agreement. Upon closing, \$16 million of the sale proceeds was deposited into escrow to fund potential indemnification claims for a

period of 15 months following the closing. Based on indemnification claims to date, we currently expect the return of substantially all of the \$16 million held in escrow.

The net proceeds at closing were subject to post-closing adjustments. The Buyer provided a statement of post-closing adjustments and we agreed upon a net amount due to us for post-closing adjustments of approximately \$1 million, which we received during the second quarter of fiscal year 2017.

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We recorded charges related to CAH of \$2 million in fiscal year 2017. This amount includes the combined impact of adjustments recorded at the closing date of the sale of CAH, post-closing purchase price adjustments and certain legal costs incurred pertaining to CAH.

Upon closing of the sale of CAH, we derecognized the loss of \$10 million recorded in AOCI attributable to actuarial-related changes in CAH's pension and other post-retirement benefit obligations as an offset against the sale proceeds. This derecognition had no effect on our consolidated statement of operations during the year ended May 31, 2017, as the amount was taken into consideration in the measurement of the CAH impairment loss recorded in fiscal year 2016.

NOTE 6—SHORT-TERM BORROWINGS

The following table provides comparative information on our short-term borrowings and weighted-average interest rates as of May 31, 2017 and 2016.

(Dollars in thousands)	May 31,			2016		
	2017	Amount	Weighted-Average Interest Rate	Amount	Weighted-Average Interest Rate	
Short-term borrowings:						
Commercial paper sold through dealers, net of discounts	\$999,691	0.93	%	\$659,935	0.43	%
Commercial paper sold directly to members, at par	928,158	0.95		848,007	0.45	
Select notes	696,889	1.12		701,849	0.62	
Daily liquidity fund notes	527,990	0.80		525,959	0.34	
Medium-term notes sold to members	190,172	1.50		203,098	1.05	
Total short-term borrowings	\$3,342,900	0.99		\$2,938,848	0.51	

We issue commercial paper for periods of one to 270 days. We also issue select notes for periods ranging from 30 to 270 days. Select notes are unsecured obligations that do not require backup bank lines of credit for liquidity purposes. These notes require a larger minimum investment than our commercial paper sold to members and, as a result, offer a higher interest rate than our commercial paper. We also issue daily liquidity fund notes, which are unsecured obligations that do not require backup bank lines of credit for liquidity purposes. We also issue medium-term notes, which represent unsecured obligations that may be issued through dealers in the capital markets or directly to our members.

Committed Bank Revolving Line of Credit Agreements

We had \$3,165 million and \$3,420 million of commitments under committed bank revolving line of credit agreements as of May 31, 2017 and 2016, respectively. Under our current committed bank revolving line of credit agreements, we have the ability to request up to \$300 million of letters of credit, which would result in a reduction in the remaining

available amount under the facilities.

In September 2016, NCSC assigned a total of \$50 million of its commitment to another financial institution under our committed bank revolving line of credit agreements, which consisted of \$25 million under the three-year agreement and \$25 million under the five-year agreement.

On November 18, 2016, we amended and restated the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 19, 2019 and November 19, 2021, respectively, and to terminate certain third-party bank commitments totaling \$165 million under the three-year agreement and \$45 million under the five year agreement. This reduction was partially offset by an increase in commitment amounts from certain existing banks of \$8 million under each of the three-year and five-year agreements. We also terminated NCSC's remaining commitment of \$60

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million. As a result, the total commitment amount from third-parties under the three-year facility and the five-year facility is \$1,533 million and \$1,632 million respectively, resulting in a combined total commitment amount under the two facilities of \$3,165 million.

The following table presents the total commitment, the net amount available for use and the outstanding letters of credit under our committed bank revolving line of credit agreements as of May 31, 2017 and 2016.

(Dollars in millions)	May 31, 2017			2016			Maturity	Annual Facility Fee <sup>(2)</sup>
	Total Commitment	Letters of Credit Outstanding	Net Available for Use <sup>(1)</sup>	Total Commitment	Letters of Credit Outstanding	Net Available for Use <sup>(1)</sup>		
3-year agreement	\$—	\$ —	\$ —	\$25	\$ —	\$ 25	October 28, 2017	7.5 bps
3-year agreement	—	—	—	1,640	—	1,640	November 19, 2018	7.5 bps
3-year agreement	1,533	—	1,533	—	—	—	November 19, 2019	7.5 bps
Total 3-year agreement	1,533	—	1,533	1,665	—	1,665		
5-year agreement	—	—	—	45	—	45	October 28, 2019	10 bps
5-year agreement	—	—	—	1,600	1	1,599	November 19, 2020	10 bps
5-year agreement	1,632	1	1,631	—	—	—	November 19, 2021	10 bps
Total 5-year agreement	1,632	1	1,631	1,645	1	1,644		
Total	\$3,165	\$ 1	\$ 3,164	\$3,310	\$ 1	\$ 3,309		

<sup>(1)</sup>Reflects amounts available from unaffiliated third parties that are not consolidated with CFC.

<sup>(2)</sup> Facility fee determined by CFC's senior unsecured credit ratings based on the pricing schedules put in place at the inception of the related agreement.

We were in compliance with all covenants and conditions under our committed bank revolving line of credit agreements and there were no borrowings outstanding under these agreements as of May 31, 2017 and 2016.

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## NOTE 7—LONG-TERM DEBT

The following table displays long-term debt outstanding and the weighted-average interest rates, by debt type, as of May 31, 2017 and 2016.

(Dollars in thousands)	May 31, 2017		2016			
	Amount	Weighted- Average Interest Rate	Maturity Date	Amount	Weighted- Average Interest Rate	Maturity Date
Unsecured long-term debt:						
Medium-term notes sold through dealers	\$2,386,956	3.48	% 2018-2032	\$2,668,276	3.02	% 2016-2032
Medium-term notes sold to members	422,779	2.18	2017-2037	450,960	1.93	2016-2037
Subtotal medium-term notes	2,809,735	3.29		3,119,236	2.86	
Unamortized discount	(382)	)		(537)	)	
Debt issuance costs	(21,903)	)		(19,370)	)	
Total unsecured medium-term notes	2,787,450			3,099,329		
Unsecured notes payable:	22,799	3.98	2022-2023	27,092	4.02	2022-2023
Unamortized discount	(379)	)		(496)	)	
Debt issuance costs	(94)	)		(123)	)	
Total unsecured notes payable	22,326	3.98		26,473	4.02	
Total unsecured long-term debt	2,809,776	3.29		3,125,802	2.87	
Secured long-term debt:						
Collateral trust bonds	7,922,711	4.08	2018-2032	7,547,711	4.28	2017-2032
Unamortized discount	(258,329)	)		(265,837)	)	
Debt issuance costs	(30,334)	)		(28,778)	)	
Total collateral trust bonds	7,634,048			7,253,096		
Guaranteed Underwriter Program notes payable	4,985,748	2.83	2025-2037	4,777,404	2.98	2025-2036
Debt issuance costs	(264)	)		(293)	)	
Total Guaranteed Underwriter Program notes payable	4,985,484			4,777,111		
Farmer Mac notes payable	2,513,389	1.71	2018-2047	2,303,123	1.15	2018-2045
Other secured notes payable	13,214	2.81	2024	14,871	2.86	2024
Debt issuance costs	(317)	)		(400)	)	
Total other secured notes payable	12,897			14,471		
Total secured notes payable	7,511,770	2.45		7,094,705	2.39	
Total secured long-term debt	15,145,818	3.29		14,347,801	3.36	
Total long-term debt	\$17,955,594	3.29		\$17,473,603	3.28	





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The following table presents the amount of long-term debt maturing in each of the five fiscal years subsequent to May 31, 2017 and thereafter.

(Dollars in thousands)	Amount Maturing	Weighted-Average Interest Rate
2018	\$ 1,258,058	3.80 %
2019	2,603,992	5.40
2020	1,367,922	2.04
2021	1,270,604	2.28
2022	1,559,515	2.37
Thereafter	9,895,503	3.12
Total	\$ 17,955,594	3.29

#### Medium-Term Notes

Medium-term notes represent unsecured obligations that may be issued through dealers in the capital markets or directly to our members.

#### Collateral Trust Bonds

Collateral trust bonds represent secured obligations sold to investors in the capital markets. Collateral trust bonds are secured by the pledge of mortgage notes or eligible securities in an amount at least equal to the principal balance of the bonds outstanding.

#### Secured Notes Payable

We had outstanding secured notes payable totaling \$4,985 million and \$4,777 million as of May 31, 2017 and 2016, respectively, under a bond purchase agreement with Federal Financing Bank and a bond guarantee agreement with RUS issued under the Guaranteed Underwriter Program, which provides guarantees to Federal Financing Bank. We pay RUS a fee of 30 basis points per year on the total amount outstanding. We are required to pledge eligible distribution system or power supply system loans as collateral in an amount at least equal to the total principal amount of notes outstanding under the Guaranteed Underwriter Program. See “Note 4—Loans and Commitments” for additional information on the collateral pledged to secure notes payable under this program.

On December 1, 2016, we closed on the \$375 million committed (“Series L”) loan facility from Federal Financing Bank guaranteed by RUS pursuant to the Guaranteed Underwriter Program. Under the Series L facility, we are able to borrow an additional \$375 million any time before October 15, 2019 with each advance amortizing quarterly and having a final maturity no longer than 20 years from the advance date. We had up to \$725 million available under the GUP program as of May 31, 2017.

We have two revolving note purchase agreements with Farmer Mac, which together allow us to borrow up to \$4,800 million from Farmer Mac. Under the terms of the first revolving note purchase agreement with Farmer Mac dated March 24, 2011, as amended, we can borrow, subject to market conditions, up to \$4,500 million at any time through January 11, 2020, and such date shall automatically extend on each anniversary date of the closing for an additional year, unless prior to any such anniversary date, Farmer Mac provides us with a notice that the draw period will not be extended beyond the remaining term. This revolving note purchase agreement allows us to borrow, repay and re-borrow funds at any time through maturity, as market conditions permit, provided that the outstanding principal amount at any time does not exceed the total available under the agreement. Each borrowing under the revolving note purchase agreement is evidenced by a pricing agreement setting forth the interest rate, maturity date and other related terms as we may negotiate with Farmer Mac at the time of each such borrowing. We may select a fixed rate or variable rate at the time of each advance with a maturity as determined in the

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applicable pricing agreement. Under this note purchase agreement with Farmer Mac, we had outstanding secured notes payable totaling \$2,513 million and \$2,303 million, as of May 31, 2017 and 2016, respectively.

Under the terms of the second revolving note purchase agreement with Farmer Mac dated July 31, 2015, we can borrow up to \$300 million at any time through July 31, 2018. This agreement also allows us to borrow, repay and re-borrow funds at any time through maturity, provided that the outstanding principal amount at any time does not exceed the total available under the agreement. We had no notes payable outstanding under this revolving note purchase agreement with Farmer Mac as of May 31, 2017 and 2016.

We are required to pledge eligible distribution system or power supply system loans as collateral in an amount at least equal to the total principal amount of notes outstanding under each of our Farmer Mac revolving note purchase agreements. See “Note 4—Loans and Commitments” for additional information on the collateral pledged to secure notes payable under these programs.

We were in compliance with all covenants and conditions under our senior debt indentures as of May 31, 2017 and 2016.

NOTE 8—SUBORDINATED DEFERRABLE DEBT

Subordinated deferrable debt is long-term debt that is subordinated to our outstanding debt and senior to subordinated certificates held by our members. Our 4.75% and 5.25% subordinated debt due 2043 and 2046, respectively, was issued for a term of up to 30 years, pays interest semi-annually, may be called at par after ten years, converts to a variable rate after ten years, and allows us to defer the payment of interest for one or more consecutive interest periods not exceeding five consecutive years. To date, we have not exercised our right to defer interest payments.

The following table presents subordinated deferrable debt outstanding and the weighted-average interest rates as of May 31, 2017 and 2016.

(Dollars in thousands)	May 31,			2016		
	2017	Amount	Weighted-Average Interest Rate	Amount	Weighted-Average Interest Rate	
4.75% due 2043 with a call date of April 30, 2023	\$400,000	4.75	%	\$400,000	4.75	%
5.25% due 2046 with a call date of April 20, 2026	350,000	5.25		350,000	5.25	
Debt issuance costs	(7,726 )			(7,788 )		
Total subordinated deferrable debt	\$742,274	4.98		\$742,212	4.98	

NOTE 9—MEMBERS’ SUBORDINATED CERTIFICATES

Membership Subordinated Certificates

CFC members were required to purchase membership subordinated certificates as a condition of membership. Such certificates are interest-bearing, unsecured, subordinated debt. Members may purchase the certificates over time as a percentage of the amount they borrow from CFC. Membership certificates typically have an original maturity of 100 years and pay interest at 5% semi-annually. The weighted-average maturity for all membership subordinated certificates outstanding was 59 years and 60 years as of May 31, 2017 and 2016, respectively. RTFC and NCSC members are not required to purchase membership certificates as a condition of membership.

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Loan and Guarantee Subordinated Certificates

Members obtaining long-term loans, certain line of credit loans or guarantees may be required to purchase additional loan or guarantee subordinated certificates with each such loan or guarantee based on the borrower's debt-to-equity ratio with CFC. These certificates are unsecured, subordinated debt and may be interest bearing or non-interest bearing.

Under our current policy, most borrowers requesting standard loans are not required to buy subordinated certificates as a condition of a loan or guarantee. Borrowers meeting certain criteria, including but not limited to, high leverage ratios, or borrowers requesting large facilities, may be required to purchase loan or guarantee subordinated certificates or member capital securities (described below) as a condition of the loan. Loan subordinated certificates have the same maturity as the related long-term loan. Some certificates may amortize annually based on the outstanding loan balance.

The interest rates payable on guarantee subordinated certificates purchased in conjunction with our guarantee program vary in accordance with applicable CFC policy. Guarantee subordinated certificates have the same maturity as the related guarantee.

Member Capital Securities

CFC offers member capital securities to its voting members. Member capital securities are interest-bearing, unsecured obligations of CFC, which are subordinate to all existing and future senior and subordinated indebtedness of CFC held by non-members of CFC, but rank proportionally to our member subordinated certificates. Series 2008 member capital maturities mature 35 years from the date of issuance, pay interest at 5% and are callable at par at our option five years from the date of issuance and anytime thereafter. Series 2013 member capital securities mature 30 years from the date of issuance, typically pay interest at 5% and are callable at par at our option 10 years from the date of issuance and anytime thereafter. These securities represent voluntary investments in CFC by the members.

The following table displays members' subordinated certificates and the weighted-average interest rates as of May 31, 2017 and 2016.

(Dollars in thousands)	May 31, 2017		2016	
	Amounts Outstanding	Weighted- Average Interest Rate	Amounts Outstanding	Weighted- Average Interest Rate
Membership subordinated certificates:				
Certificates maturing 2020 through 2095 Subscribed and unissued <sup>(1)</sup>	\$629,011 1,087		\$629,114 949	
Total membership subordinated certificates	630,098	4.94 %	630,063	4.94 %

Loan and guarantee subordinated certificates:				
3% certificates maturing through 2040	110,164		110,164	
2% to 10% certificates maturing through 2045	268,592		279,823	
Non-interest bearing certificates maturing through 2047	189,013		203,463	
Subscribed and unissued <sup>(1)</sup>	61		251	
Total loan and guarantee subordinated certificates	567,830	3.02	593,701	2.99
Member capital securities:				
Securities maturing through 2048	221,097	5.00	220,046	5.00
Total members' subordinated certificates	\$1,419,025	4.18	\$1,443,810	4.14

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<sup>(1)</sup> The subscribed and unissued subordinated certificates represent subordinated certificates that members are required to purchase. Upon collection of full payment of the subordinated certificate amount, the certificate will be reclassified from subscribed and unissued to outstanding.

The following table presents the amount of members' subordinated certificates maturing in each of the five fiscal years following May 31, 2017 and thereafter.

(Dollars in thousands)	Amount Maturing <sup>(1)</sup>	Weighted-Average Interest Rate	
2018	\$ 10,379	2.26	%
2019	13,592	2.98	
2020	16,383	2.98	
2021	54,713	3.85	
2022	16,216	3.08	
Thereafter	1,306,617	4.25	
Total	\$ 1,417,900	4.18	

<sup>(1)</sup>Excludes \$1 million in subscribed and unissued member subordinated certificates for which a payment has been received, but no certificate has been issued. Amortizing member loan subordinated certificates totaling \$290 million are amortizing annually based on the unpaid principal balance of the related loan. Amortization payments on these certificates totaled \$17 million in fiscal year 2017 and represented 6% of amortizing loan subordinated certificates outstanding.

NOTE 10—DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

Use of Derivatives

We are an end user of derivative financial instruments and do not engage in derivative trading. We use derivatives, primarily interest rate swaps and Treasury rate locks, to manage interest rate risk. Derivatives may be privately negotiated contracts, which are often referred to as over-the-counter (“OTC”) derivatives, or they may be listed and traded on an exchange. We generally engage in OTC derivative transactions.

Outstanding Notional Amount and Maturities of Derivatives

The notional amount provides an indication of the volume of our derivatives activity, but this amount is not recorded on our consolidated balance sheets. The notional amount is used only as the basis on which interest payments are determined and is not the amount exchanged. The following table shows the outstanding notional amounts and the weighted-average rate paid and received for our interest rate swaps, by type, as of May 31, 2017 and 2016. The substantial majority of our interest rate swaps use an index based on the London Interbank Offered Rate (“LIBOR”) for either the pay or receive leg of the swap agreement.





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(Dollars in thousands)	May 31, 2017				2016			
	Notional Amount	Weighted- Average Rate Paid	Weighted- Average Rate Received	Weighted- Average Rate Received	Notional Amount	Weighted- Average Rate Paid	Weighted- Average Rate Received	Weighted- Average Rate Received
Pay fixed swaps	\$6,807,013	2.85 %	1.16 %		\$6,661,471	2.95 %	0.63 %	
Receive fixed swaps	3,699,000	1.72	2.64		3,499,000	1.02	2.82	
Total interest rate swaps	10,506,013	2.46	1.68		10,160,471	2.29	1.39	
Forward pay-fixed swaps	285,383				40,000			
Total	\$10,791,396				\$10,200,471			

The following table presents the maturities for each of the next five fiscal years and thereafter based on the notional amount of our interest rate swaps as of May 31, 2017.

(Dollars in thousands)	Notional Amount	Notional Amortization and Maturities					
		2018	2019	2020	2021	2022	Thereafter
Interest rate swaps	\$10,791,396	\$647,080	\$511,117	\$1,329,870	\$483,062	\$522,072	\$7,298,195

#### Impact of Derivatives on Consolidated Balance Sheets

The following table displays the fair value of the derivative assets and derivative liabilities recorded on our consolidated balance sheets and the related outstanding notional amount of our interest rate swaps as of May 31, 2017 and 2016.

(Dollars in thousands)	May 31, 2017		2016	
	Fair Value	Notional Balance	Fair Value	Notional Balance
Derivative assets	\$49,481	\$3,754,120	\$80,095	\$2,879,567
Derivative liabilities	(385,337 )	7,037,276	(594,820 )	7,320,904
Total	\$(335,856)	\$10,791,396	\$(514,725)	\$10,200,471

All of our master swap agreements include legally enforceable netting provisions that allow for offsetting of all contracts with a given counterparty in the event of default by one of the two parties. However, as indicated above, in “Note 1—Summary of Significant Accounting Policies,” we report derivative asset and liability amounts on a gross basis by individual contracts. The following table presents the gross fair value of derivative assets and liabilities reported on our consolidated balance sheets as of May 31, 2017 and 2016, and provides information on the impact of netting provisions and collateral pledged.

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May 31, 2017						
(Dollars in thousands)	Recognized Assets/ Liabilities	Gross Amount of Offset in the Sheet	Net Amount of Assets/ Liabilities Presented in the Balance Sheet	Gross Amount of Not Offset in the Balance Sheet Financial Instruments	Cash Collateral Pledged	Net Amount
Derivative assets:						
Interest rate swaps	\$49,481	\$	—\$ 49,481	\$49,481	\$	—\$
Derivative liabilities:						
Interest rate swaps	385,337	—	385,337	49,481	—	335,856
May 31, 2016						
(Dollars in thousands)	Recognized Assets/ Liabilities	Gross Amount of Offset in the Sheet	Net Amount of Assets/ Liabilities Presented in the Balance Sheet	Gross Amount of Not Offset in the Balance Sheet Financial Instruments	Cash Collateral Pledged	Net Amount
Derivative assets:						
Interest rate swaps	\$80,095	\$	—\$ 80,095	\$80,095	\$	—\$
Derivative liabilities:						
Interest rate swaps	594,820	—	594,820	80,095	—	514,725

Impact of Derivatives on Consolidated Statements of Operations

Derivative gains (losses) reported in our consolidated statements of operations consist of derivative cash settlements and derivative forward value gains (losses). Derivative cash settlements represent net contractual interest expense accruals on interest rate swaps during the period. The derivative forward value gains (losses) represent the change in fair value of our interest rate swaps during the reporting period due to changes in the estimate of future interest rates over the remaining life of our derivative contracts.

The following table presents the components of the derivative gains (losses) reported in our consolidated statements of operations for our interest rate swaps for fiscal years 2017, 2016 and 2015.

(Dollars in thousands)	Year Ended May 31,		
	2017	2016	2015
Derivative cash settlements	\$(84,478)	\$(88,758)	\$(82,906)

Derivative forward value gains (losses)	179,381	(221,083 )	(114,093 )
Derivative gains (losses)	\$94,903	\$(309,841)	\$(196,999)

#### Credit-Risk-Related Contingent Features

Our derivative contracts typically contain mutual early termination provisions, generally in the form of a credit rating trigger. Under the mutual credit rating trigger provisions, either counterparty may, but is not obligated to, terminate and settle the agreement if the credit rating of the other counterparty falls to a level specified in the agreement. If a derivative contract is terminated, the amount to be received or paid by us would be equal to the mark-to-market value, as defined in the agreement, as of the termination date.

Our senior unsecured credit ratings from Moody's and S&P were A2 and A, respectively, as of May 31, 2017. Both Moody's and S&P had our ratings on stable outlook as of May 31, 2017. The following table displays the notional amounts of our

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derivative contracts with rating triggers as of May 31, 2017 and the payments that would be required if the contracts were terminated as of that date because of a downgrade of our unsecured credit ratings or the counterparty's unsecured credit ratings below A3/A-, below Baa1/BBB+, to or below Baa2/BBB, below Baa3/BBB-, or to or below Ba2/BB+ by Moody's or S&P, respectively. In calculating the payment amounts that would be required upon termination of the derivative contracts, we assumed that the amounts for each counterparty would be netted in accordance with the provisions of the master netting agreements for each counterparty. The net payment amounts are based on the fair value of the underlying derivative instrument, excluding the credit risk valuation adjustment, plus any unpaid accrued interest amounts.

(Dollars in thousands)	Notional Amount	Payable Due From CFC	Receivable Due to CFC	Net (Payable)/Receivable
Impact of rating downgrade trigger:				
Falls below A3/A- <sup>(1)</sup>	\$59,165	\$(13,713 )	\$ —	—\$ (13,713 )
Falls below Baa1/BBB+	7,008,763	(208,022 )	—	(208,022 )
Falls to or below Baa2/BBB <sup>(2)</sup>	459,106	(646 )	—	(646 )
Falls below Baa3/BBB-	268,691	(23,581 )	—	(23,581 )
Total	\$7,795,725	\$(245,962)	\$ —	—\$ (245,962 )

<sup>(1)</sup> Rating trigger for CFC falls below A3/A-, while rating trigger for counterparty falls below Baa1/BBB+ by Moody's or S&P, respectively.

<sup>(2)</sup> Rating trigger for CFC falls to or below Baa2/BBB, while rating trigger for counterparty falls to or below Ba2/BB+ by Moody's or S&P, respectively.

The aggregate fair value amount including the credit risk valuation adjustment, of all interest rate swaps with rating triggers that were in a net liability position was \$244 million as of May 31, 2017.

NOTE 11—EQUITY

Total equity increased by \$281 million during fiscal year 2017 to \$1,099 million. The increase in total equity was primarily attributable to our net income of \$312 million, which was partially offset by patronage capital retirements totaling \$43 million. The following table presents the components of equity as of May 31, 2017 and 2016.

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(Dollars in thousands)	May 31,	
	2017	2016
Membership fees	\$971	\$974
Educational fund	1,929	1,798
Total membership fees and educational fund	2,900	2,772
Patronage capital allocated	761,701	713,853
Members' capital reserve	630,305	587,219
Unallocated net loss:		
Prior year-end cumulative derivative forward value losses	(507,904	)(287,077 )
Current year derivative forward value gains (losses) <sup>(1)</sup>	175,379	(220,827 )
Current year-end cumulative derivative forward value losses	(332,525	)(507,904 )
Other unallocated net loss	(5,603	)(5,706 )
Unallocated net loss	(338,128	)(513,610 )
CFC retained equity	1,056,778	790,234
Accumulated other comprehensive income	13,175	1,058
Total CFC equity	1,069,953	791,292
Noncontrolling interests	28,852	26,086
Total equity	\$1,098,805	\$817,378

<sup>(1)</sup> Represents derivative forward value gains (losses) for CFC only, as total CFC equity does not include the noncontrolling interests of the variable interest entities NCSC and RTFC, which we are required to consolidate. See "Note 15—Business Segments" for the statements of operations for CFC.

District of Columbia cooperative law requires cooperatives to allocate net earnings to patrons, to a general reserve in an amount sufficient to maintain a balance of at least 50% of paid-in capital and to a cooperative educational fund, as well as permits additional allocations to board-approved reserves. District of Columbia cooperative law also requires that a cooperative's net earnings be allocated to all patrons in proportion to their individual patronage and each patron's allocation be distributed to the patron unless the patron agrees that the cooperative may retain its share as additional capital.

Annually, the CFC Board of Directors allocates its net earnings to its patrons in the form of patronage capital, to a cooperative educational fund, to a general reserve, if necessary, and to board-approved reserves. An allocation to the general reserve is made, if necessary, to maintain the balance of the general reserve at 50% of the membership fees collected. CFC's bylaws require the allocation to the cooperative educational fund to be at least 0.25% of its net earnings. Funds from the cooperative educational fund are disbursed annually to statewide cooperative organizations to fund the teaching of cooperative principles and for other cooperative education programs.

Currently, CFC has one additional board-approved reserve, the members' capital reserve. The CFC Board of Directors determines the amount of net earnings that is allocated to the members' capital reserve, if any. The members' capital

reserve represents net earnings that CFC holds to increase equity retention. The net earnings held in the members' capital reserve have not been specifically allocated to members, but may be allocated to individual members in the future as patronage capital if authorized by the CFC Board of Directors.

All remaining net earnings are allocated to CFC's members in the form of patronage capital. The amount of net earnings allocated to each member is based on the member's patronage of CFC's lending programs during the year. No interest is earned by members on allocated patronage capital. There is no effect on CFC's total equity as a result of allocating net earnings to members in the form of patronage capital or to board-approved reserves. The CFC Board of Directors has voted annually to retire a portion of the patronage capital allocation. Upon retirement, patronage capital is paid out in cash to the

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members to whom it was allocated. CFC's total equity is reduced by the amount of patronage capital retired to its members and by amounts disbursed from board-approved reserves.

The current policy of the CFC Board of Directors is to retire 50% of the prior year's allocated patronage capital and hold the remaining 50% for 25 years. The retirement amount and timing remains subject to annual approval by the CFC Board of Directors.

In July 2016, the CFC Board of Directors authorized the allocation of the fiscal year 2016 net earnings as follows: \$1 million to the Cooperative Educational Fund, \$86 million to the members' capital reserve and \$84 million to members in the form of patronage capital. In July 2016, the CFC Board of Directors authorized the retirement of allocated net earnings totaling \$42 million, representing 50% of the fiscal year 2016 allocation. This amount was returned to members in cash in the second quarter of fiscal year 2017.

In July 2017, the CFC Board of Directors authorized the allocation of the fiscal year 2017 net earnings as follows: \$1 million to the Cooperative Educational Fund, \$43 million to the members' capital reserve and \$90 million to members in the form of patronage. In July 2017, the CFC Board of Directors authorized the retirement of allocated net earnings totaling \$45 million, representing 50% of the fiscal year 2017 allocation. This amount will be returned to members in cash in the second quarter of fiscal year 2018. Future allocations and retirements of net earnings may be made annually as determined by the CFC Board of Directors with due regard for its financial condition. The CFC Board of Directors has the authority to change the current practice for allocating and retiring net earnings at any time, subject to applicable laws and regulations.

Total equity includes noncontrolling interest, which represents 100% of NCSC and RTFC equity, as the members of NCSC and RTFC own or control 100% of the interest in their respective companies. In accordance with District of Columbia cooperative law and its bylaws and board policies, RTFC allocates its net earnings to its patrons, a cooperative educational fund and a general reserve, if necessary. RTFC's bylaws require that it allocate at least 1% of net income to a cooperative educational fund. Funds from the cooperative educational fund are disbursed annually to fund the teaching of cooperative principles and for other cooperative education programs. An allocation to the general reserve is made, if necessary, to maintain the balance of the general reserve at 50% of the membership fees collected. The remainder is allocated to borrowers in proportion to their patronage. RTFC retires at least 20% of its annual allocation, if any, to members in cash prior to filing the applicable tax return. Any additional amounts are retired as determined by the board of directors taking into consideration RTFC's financial condition.

RTFC reported net income of less than \$1 million for fiscal year 2017. Pursuant to its bylaws, RTFC allocated 1% of net income or \$5 thousand to an educational fund. The remaining net income for fiscal year 2017 was not sufficient to cover the fiscal year 2016 net loss. As such, there was no allocation of patronage capital to members for fiscal year 2017. Because RTFC also reported a net loss for fiscal year 2016, there was no allocation to the educational fund or of patronage capital to members for fiscal 2016.



NCSC's bylaws require that it allocate at least 0.25% of its net earnings to a cooperative educational fund and an amount to the general reserve required to maintain the general reserve balance at 50% of membership fees collected. Funds from the cooperative educational fund are disbursed annually to fund the teaching of cooperative principles and for other cooperative education programs.

The NCSC Board of Directors has the authority to determine if and when net earnings will be allocated. There is no effect on noncontrolling interest as a result of NCSC and RTFC allocating net earnings to members or board-approved reserves. There is a reduction to noncontrolling interest as a result of the cash retirement of amounts allocated to members or to disbursements from board-approved reserves.

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Accumulated Other Comprehensive Income

The following tables summarize, by component, the activity in AOCI as of and for the years ended May 31, 2017 and 2016.

(Dollars in thousands)	Year Ended May 31, 2017				
	Unrealized Gains (Losses)	Unrealized Gains Derivatives	Unrealized Losses Foreclosed Assets	Unrealized Losses Defined Benefit Plan	Total
Beginning balance	\$7,402	\$ 4,487	\$ (9,823 )	\$ (1,008 )	\$ 1,058
Unrealized gains	4,614	—	—	—	4,614
Unrealized losses	—	—	—	(1,535 )	(1,535 )
Losses reclassified into earnings	—	—	9,823	—	9,823
Gains reclassified into earnings	—	(785 )	—	—	(785 )
Other comprehensive income	4,614	(785 )	9,823	(1,535 )	12,117
Ending balance	\$12,016	\$ 3,702	\$ —	\$ (2,543 )	\$ 13,175
(Dollars in thousands)	Year Ended May 31, 2016				
	Unrealized Gains (Losses)	Unrealized Gains Derivatives	Unrealized Losses Foreclosed Assets	Unrealized Losses Defined Benefit Plan	Total
Beginning balance	\$3,934	\$ 5,371	\$ (4,248 )	\$ (977 )	\$ 4,080
Unrealized gains	3,468	—	—	—	3,468
Unrealized losses	—	—	(5,575 )	(206 )	(5,781 )
Losses reclassified into earnings	—	—	—	175	175
Gains reclassified into earnings	—	(884 )	—	—	(884 )
Other comprehensive income	3,468	(884 )	(5,575 )	(31 )	(3,022 )
Ending balance	\$7,402	\$ 4,487	\$ (9,823 )	\$ (1,008 )	\$ 1,058

We expect to reclassify approximately \$1 million of amounts in AOCI related to unrealized derivative gains into earnings over the next 12 months.

NOTE 12—EMPLOYEE BENEFITS

National Rural Electric Cooperative Association (“NRECA”) Retirement Security Plan

CFC is a participant in the NRECA Retirement Security Plan (“the Plan”), a noncontributory, defined benefit multiple-employer master pension plan. The employer identification number of the Plan is 53-0116145 and the Plan

number is 333. Plan information is available publicly through the annual Form 5500, including attachments. The Plan is available to all qualified CFC employees. Under the Plan, participating employees are entitled to receive annually, under a 50% joint and surviving spouse annuity, 1.70% of the average of their five highest base salaries during their last 10 years of employment, multiplied by the number of years of participation in the Plan. As a multiple-employer plan, there is no funding liability for CFC related to the Plan. CFC's expense is limited to the annual premium to participate in the Plan.

The risks of participating in CFC's multiple-employer plan are different from single-employer plans based on the following characteristics of the Plan:

Assets contributed to the multiple-employer plan by one participating employer may be used to provide benefits to employees of other participating employers.

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• If a participating employer stops contributing to the Plan, the unfunded obligations of the Plan may be borne by the remaining participating employers.

• If CFC chooses to stop participating in the Plan, CFC may be required to pay a withdrawal liability representing an amount based on the underfunded status of the Plan.

In the Plan, a certified zone status determination is not required and, therefore, not determined under the Pension Protection Act of 2006. In total, the Plan was more than 80% funded at January 1, 2017, 2016 and 2015, based on the Pension Protection Act (“PPA”) funding target and PPA actuarial value of assets on those dates. We made contributions of \$4 million, \$4 million and \$3 million during fiscal year 2017, 2016 and 2015, respectively. In each of these years, these contributions represented less than 5% of total contributions made to the plan by all participating employers. There are no collective bargaining agreements in place that cover CFC’s employees. Our contribution rate did not include a surcharge and there were no funding improvement plans or rehabilitation plans implemented or pending and no required minimum contributions.

#### Pension Restoration Plan

The Economic Growth and Tax Relief Act of 2001 set a limit of \$270,000 for calendar year 2017 on the compensation to be used in the calculation of pension benefits. To restore potential lost benefits, we adopted a Pension Restoration Plan administered by NRECA. Under the Plan, the amount that NRECA invoices CFC for the Retirement Security Plan will continue to be based on the full compensation paid to each employee. Upon the retirement of a covered employee, NRECA will calculate the retirement and security benefit to be paid with consideration of the compensation limits and will pay the maximum benefit thereunder. NRECA will also calculate the retirement and security benefit that would have been available without consideration of the compensation limits and CFC will pay the difference. NRECA will then give CFC a credit against future retirement and security contribution liabilities in the amount paid by CFC to the covered employee.

The Pension Restoration Plan, which is frozen, is an unfunded, unsecured deferred compensation plan. The benefit and payout formula under the restoration component of the Retirement Security Plan is similar to that under the qualified plan component. The three participating executive officers have satisfied the provisions established to receive the benefit from this plan. Since there is no longer a risk of forfeiture of the benefit under the Pension Restoration Plan, we will make annual distributions from the plan to each of the named executive officers included in the plan. These distributions will be credited back to us by NRECA. Therefore, the distributions will have no impact on our consolidated financial statements.

#### Executive Benefit Restoration Plan

NRECA restricted additional participation in the Pension Restoration Plan in December 2014. We therefore adopted a top-hat Executive Benefit Restoration Plan, effective January 1, 2015. The Executive Benefit Restoration Plan is a nonqualified, unfunded plan maintained by CFC to provide retirement benefits to a select group of executive officers whose compensation exceeds Internal Revenue Service (“IRS”) limits for qualified defined benefit plans. There is a risk

of forfeiture if participants leave the company prior to becoming fully vested in the Executive Benefit Restoration Plan. There were seven plan participants as of May 31, 2017. Upon adoption of the plan on January 1, 2015, we recorded an unfunded projected pension obligation of \$1 million and a corresponding adjustment to AOCI. The actuarially determined unfunded projected benefit obligation of the plan, which is included on our consolidated balance sheet as a component of other liabilities, increased to \$4 million as of May 31, 2017 from \$1 million as of May 31, 2016. Of the \$3 million increase in the unfunded projected benefit obligation, approximately \$2 million was attributable to plan amendments for new participants in the plan and recorded in AOCI. The remaining \$1 million was recognized as pension expense as a component of salaries and benefits in our consolidated statements of operations for fiscal year 2017.

#### Defined Contribution Plan

CFC offers a 401(k) defined contribution savings program, the 401(k) Pension Plan, to all employees who have completed a minimum of 1,000 hours of service in either the first 12 consecutive months or first full calendar year of employment. We

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contribute an amount up to 2% of an employee's salary each year for all employees participating in the program with a minimum 2% employee contribution. We contributed \$0.5 million to the plan in each of the fiscal years 2017, 2016 and 2015.

NOTE 13—GUARANTEES

We guarantee certain contractual obligations of our members so they may obtain various forms of financing. We use the same credit policies and monitoring procedures in providing guarantees as we do for loans and commitments. If a member system defaults on its obligation to pay debt service, then we are obligated to pay any required amounts under our guarantees. Meeting our guarantee obligations satisfies the underlying obligation of our member systems and prevents the exercise of remedies by the guarantee beneficiary based upon a payment default by a member system. In general, the member system is required to repay any amount advanced by us with interest, pursuant to the documents evidencing the member system's reimbursement obligation.

The following table summarizes total guarantees by type of guarantee and member class as of May 31, 2017 and 2016.

(Dollars in thousands)	May 31,	
	2017	2016
Total by type:		
Long-term tax-exempt bonds	\$468,145	\$475,965
Letters of credit	307,321	319,596
Other guarantees	114,151	113,647
Total	\$889,617	\$909,208

Total by member class:

CFC:		
Distribution	\$126,188	\$127,890
Power supply	743,678	759,345
Statewide and associate	5,054	5,054
CFC total	874,920	892,289
NCSC	13,123	15,345
RTFC	1,574	1,574
Total	\$889,617	\$909,208

We guarantee debt issued in connection with the construction or acquisition of pollution control, solid waste disposal, industrial development and electric distribution facilities, classified as long-term tax-exempt bonds in the table above. We unconditionally guarantee to the holders or to trustees for the benefit of holders of these bonds the full principal, interest and in most cases, premium, if any, on each bond when due. If a member system defaults in its obligation to pay debt service, then we are obligated to pay any required amounts under our guarantees. Such payment will prevent the occurrence of an event of default that would otherwise permit acceleration of the bond issue. In general, the member system is required to repay any amount advanced by us with interest, pursuant to the documents evidencing the member system's reimbursement obligation.

The maturities for the long-term tax-exempt bonds and the related guarantees extend through calendar year 2042. Amounts in the table represent the outstanding principal amount of the guaranteed bonds. Our maximum potential exposure for the \$68 million of fixed-rate tax-exempt bonds was \$98 million, which represented principal and interest, as of May 31, 2017. Of the amounts shown in the table above for long-term tax-exempt bonds, \$400 million and \$406 million as of May 31,

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2017 and 2016, respectively, are adjustable or floating-rate bonds that may be converted to a fixed rate as specified in the applicable indenture for each bond offering. We are unable to determine the maximum amount of interest that we could be required to pay related to the remaining adjustable and floating-rate bonds. Many of these bonds have a call provision that allows us to call the bond in the event of a default. This would limit our exposure to future interest payments on these bonds. Generally our maximum potential exposure is secured by mortgage liens on the systems' assets and future revenue. If a system's debt is accelerated because of a determination that the interest thereon is not tax-exempt, the system's obligation to reimburse us for any guarantee payments will be treated as a long-term loan.

The maturities for letters of credit extend through calendar year 2027. The amounts shown in the table above represent our maximum potential exposure, of which \$125 million was secured, as of May 31, 2017. Letters of credit include \$76 million to provide the standby liquidity for adjustable and floating-rate tax-exempt bonds issued for the benefit of our members as of both May 31, 2017 and 2016. Security provisions include a mortgage lien on substantially all of the system's assets, future revenue and the system's investment in our commercial paper.

In addition to the letters of credit listed in the table above, under master letter of credit facilities in place as of May 31, 2017, we may be required to issue up to an additional \$60 million in letters of credit to third parties for the benefit of our members. All of our master letter of credit facilities were subject to material adverse change clauses at the time of issuance as of May 31, 2017. Prior to issuing a letter of credit, we would confirm that there has been no material adverse change in the business or condition, financial or otherwise, of the borrower since the time the loan was approved and confirm that the borrower is currently in compliance with the letter of credit terms and conditions.

The maturities for other guarantees listed in the table run through calendar year 2025. The maximum potential exposure for these other guarantees was \$115 million, all of which were unsecured, as of May 31, 2017.

Guarantees under which our right of recovery from our members was not secured totaled \$297 million and \$308 million and represented 33% and 34% of total guarantees as of May 31, 2017 and 2016, respectively. In addition to the guarantees described above, we were also the liquidity provider for \$476 million of variable-rate tax-exempt bonds as of May 31, 2017, issued for our member cooperatives. While the bonds are in variable-rate mode, in return for a fee, we have unconditionally agreed to purchase bonds tendered or put for redemption if the remarketing agents are unable to sell such bonds to other investors. We were not required to perform as liquidity provider pursuant to these obligations during fiscal years 2017, 2016 or 2015.

#### Guarantee Liability

We recorded a guarantee liability of \$15 million and \$17 million as of May 31, 2017 and 2016, respectively, which represents the contingent and noncontingent exposures related to guarantees and liquidity obligations. The contingent guarantee liability was \$1 million as of May 31, 2017 and 2016, based on management's estimate of exposure to losses within the guarantee portfolio. The remaining balance of the total guarantee liability of \$14 million and \$16 million as of May 31, 2017 and 2016, respectively, relates to our noncontingent obligation to stand ready to perform over the term of our guarantees and liquidity obligations that we have entered into or modified since January 1, 2003.



The following table details the scheduled maturities of our outstanding guarantees in each of the five fiscal years following May 31, 2017 and thereafter:

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(Dollars in thousands)	Amount
	Maturing
2018	\$367,648
2019	26,890
2020	58,251
2021	109,243
2022	38,253
Thereafter	289,332
Total	\$889,617

## NOTE 14—FAIR VALUE MEASUREMENT

## Fair Value of Financial Instruments

We use fair value measurements for the initial recording of certain assets and liabilities and periodic remeasurement of certain assets and liabilities on a recurring or nonrecurring basis. The accounting guidance for fair value measurements and disclosures establishes a three-level fair value hierarchy that prioritizes the inputs into the valuation techniques used to measure fair value. The levels of the fair value hierarchy, in priority order, include Level 1, Level 2 and Level 3. We describe the valuation technique for each level in “Note 1—Summary of Significant Accounting Policies.” The following tables present the carrying value and fair value for all of our financial instruments, including those carried at amortized cost, as of May 31, 2017 and 2016. The table also displays the classification within the fair value hierarchy of the valuation technique used in estimating fair value.

(Dollars in thousands)	May 31, 2017		Fair Value Measurements Using		
	Carrying Value	Fair Value	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	\$166,615	\$166,615	\$166,615	\$—	\$ —
Restricted cash	21,806	21,806	21,806	—	—
Time deposits	226,000	226,000	—	226,000	—
Investment securities, available for sale	92,554	92,554	92,554	—	—
Deferred compensation investments	4,693	4,693	4,693	—	—
Loans to members, net	24,329,668	24,182,724	—	—	24,182,724
Accrued interest receivable	111,493	111,493	—	111,493	—
Debt service reserve funds	17,151	17,151	17,151	—	—
Derivative assets	49,481	49,481	—	49,481	—
Liabilities:					
Short-term borrowings	\$3,342,900	\$3,342,990	\$1,527,990	\$1,815,000	\$ —
Long-term debt	17,955,594	18,744,331	—	11,215,290	7,529,041
Accrued interest payable	137,476	137,476	—	137,476	—
Guarantee liability	15,241	16,204	—	—	16,204

Derivative liabilities	385,337	385,337	—	385,337	—
Subordinated deferrable debt	742,274	788,079	—	788,079	—
Members' subordinated certificates	1,419,025	1,419,048	—	—	1,419,048

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(Dollars in thousands)	May 31, 2016		Fair Value Measurements Using		
	Carrying Value	Fair Value	Level 1	Level 2	Level 3
<b>Assets:</b>					
Cash and cash equivalents	\$204,540	\$204,540	\$204,540	\$—	\$ —
Restricted cash	4,628	4,628	4,628	—	—
Time deposits	340,000	340,000	—	340,000	—
Investment securities, available for sale	87,940	87,940	87,940	—	—
Deferred compensation investments	4,326	4,326	4,326	—	—
Loans to members, net	23,129,438	23,297,924	—	—	23,297,924
Accrued interest receivable	113,272	113,272	—	113,272	—
Debt service reserve funds	17,151	17,151	17,151	—	—
Derivative assets	80,095	80,095	—	80,095	—
<b>Liabilities:</b>					
Short-term borrowings	\$2,938,848	\$2,938,716	\$1,185,959	\$1,752,757	\$ —
Long-term debt	17,473,603	18,577,261	—	11,327,004	7,250,257
Accrued interest payable	132,996	132,996	—	132,996	—
Guarantee liability	17,109	19,019	—	—	19,019
Derivative liabilities	594,820	594,820	—	594,820	—
Subordinated deferrable debt	742,212	751,395	—	751,395	—
Members' subordinated certificates	1,443,810	1,443,834	—	—	1,443,834

Following is a description of the valuation techniques we use for fair value measurement and disclosure, the significant inputs used in those techniques (if applicable) and the classification within the fair value hierarchy.

#### Cash and Cash Equivalents

Cash and cash equivalents include cash and certificates of deposit with original maturities of less than 90 days. Cash and cash equivalents are valued at the carrying value, which approximates fair value and are classified within Level 1 of the fair value hierarchy.

#### Restricted Cash

Restricted cash consists of cash and cash equivalents for which use is contractually restricted. The carrying value of restricted cash approximates fair value and is classified within Level 1 of the fair value hierarchy.

#### Time Deposits

Time deposits with financial institutions in interest-bearing accounts have maturities of less than one year as of the reporting date and are valued at the carrying value, which approximates fair value and are classified within Level 2 of the fair value hierarchy.

Investment Securities Available for Sale

Our investments in equity securities consist of investments in Farmer Mac Class A common stock and Series A, Series B and Series C preferred stock. These securities are classified as available for sale and reported at fair value in our consolidated balance sheets. We determine the fair value based on quoted prices on the stock exchange where the stock is

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traded. That stock exchange with respect to Farmer Mac Class A common stock is an active market based on the volume of shares transacted. Fair values for these securities are classified within Level 1 of the fair value hierarchy.

#### Deferred Compensation Investments

CFC offers a nonqualified 457(b) deferred compensation plan to highly compensated employees. Such amounts deferred by employees are invested by the company. The deferred compensation investments are presented as other assets in the consolidated balance sheets in the other assets category at fair value. We calculate fair value based on the quoted price on the stock exchange where the funds are traded. That stock exchange is an active market based on the volume of shares transacted. The amounts are invested in highly liquid indices and mutual funds and are classified within Level 1 of the fair value hierarchy.

#### Loans to Members, Net

As part of receiving a loan from us, our members have additional requirements and rights that are not typical of other financial institutions, such as the ability to receive a patronage capital allocation, the general requirement to purchase subordinated certificates or member capital securities to meet their capital contribution requirements as a condition of obtaining additional credit from us, the option to select fixed rates from one year to maturity with the fixed rate resetting or repricing at the end of each selected rate term, the ability to convert from a fixed rate to another fixed rate or the variable rate at any time, and certain interest rate discounts that are specific to the borrower's activity with us. These features make it difficult to obtain market data for similar loans. Therefore, we must use other methods to estimate the fair value.

Fair values for fixed-rate loans are estimated using a discounted cash flow technique by discounting the expected future cash flows using the current rates at which we would make similar loans to new borrowers for the same remaining maturities. The maturity date used in the fair value calculation of loans with a fixed rate for a selected rate term is the next repricing date since these borrowers must reprice their loans at various times throughout the life of the loan at the current market rate.

Loans with different risk characteristics, specifically nonperforming and restructured loans, are valued by using collateral valuations or by adjusting cash flows for credit risk and discounting those cash flows using the current rates at which similar loans would be made by us to borrowers for the same remaining maturities. See below for more details about how we calculate the fair value of certain impaired loans.

The carrying value of our variable-rate loans adjusted for credit risk approximates fair value since variable-rate loans are eligible to be reset at least monthly.

Loans to members are classified within Level 3 of the fair value hierarchy.

#### Accrued Interest Receivable

Accrued interest receivable represents accrued interest to be collected on our loans to members and derivative instruments and is valued at the carrying value, which approximates fair value. Accrued interest receivable is

classified within Level 2 of the fair value hierarchy.

#### Debt Service Reserve Funds

Debt service reserve funds represent cash and/or investments on deposit with the bond trustee for tax-exempt bonds that we guarantee. Debt service reserve fund investments include actively traded tax-exempt municipal bonds and commercial paper. The carrying value approximates the fair value and the valuation technique is classified as Level 1.

#### Short-Term Borrowings

Short-term borrowings consists of commercial paper, select notes, bank bid notes, daily liquidity fund notes and medium-term notes. The fair value of short-term borrowings with maturities less than or equal to 90 days is carrying value, which is a reasonable estimate of fair value. The fair value of short-term borrowings with maturities greater than 90 days is estimated

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based on discounted cash flows and quoted market rates for debt with similar maturities. Short-term borrowings classified within Level 1 of the fair value hierarchy includes dealer commercial paper, bank bid notes and daily liquidity fund notes. Short-term borrowings classified within Level 2 of the fair value hierarchy consists of member commercial paper and select notes and is determined based on discounted cash flows using discount rates consistent with current market rates for similar products with similar remaining terms.

Short-term borrowings classified within Level 2 also includes our medium-term notes with an original maturity equal to or less than one year. The fair value of short-term medium-term notes classified within Level 2 of the fair value hierarchy was determined based on discounted cash flows using a pricing model that incorporates available market information such as indicative benchmark yields and credit spread assumptions that are provided by third-party pricing services such as the banks that underwrite our other debt transactions.

#### Long-Term Debt

Long-term debt consists of collateral trust bonds, medium-term notes and long-term notes payable. We issue substantially all collateral trust bonds and some medium-term notes in underwritten public transactions. Collateral trust bonds and medium-term notes are classified within Level 2 of the fair value hierarchy. The fair value of long-term debt classified within Level 2 of the fair value hierarchy was determined based on discounted cash flows. There is no active secondary trading for the underwritten collateral trust bonds and medium-term notes; therefore, dealer quotes and recent market prices are both used in estimating fair value. There is essentially no secondary market for the medium-term notes issued to our members or in transactions that are not underwritten; therefore, fair value is estimated based on observable benchmark yields and spreads for similar instruments supplied by banks that underwrite our other debt transactions.

The long-term notes payable are issued in private placement transactions and there is no secondary trading of such debt. Long-term notes payable are classified within Level 3 of the fair value hierarchy. The fair value was determined based on discounted cash flows using benchmark yields and spreads for similar instruments supplied by underwriter quotes for similar instruments, if available. Secondary trading quotes for our debt instruments used in the determination of fair value incorporate our credit risk.

#### Accrued Interest Payable

Accrued interest payable represents accrued interest to be paid on our debt and derivative instruments and is valued at the carrying value, which approximates fair value. Accrued interest payable is classified within Level 2 of the fair value hierarchy.

#### Guarantees

The fair value of our guarantee liability is based on the fair value of our contingent and noncontingent exposure related to our guarantees. The fair value of our contingent exposure for guarantees is based on management's estimate of our exposure to losses within the guarantee portfolio using a discounted cash flow method. The fair value of our noncontingent exposure for guarantees issued is estimated based on the total unamortized balance of guarantee fees paid and guarantee fees to be paid discounted at our current short-term funding rate, which represents management's



estimate of the fair value of our obligation to stand ready to perform. Guarantees are classified within Level 3 of the fair value hierarchy.

#### Subordinated Deferrable Debt

Subordinated deferrable debt outstanding was issued in underwritten public transactions. There is no active secondary trading for this subordinated deferrable debt; therefore, dealer quotes and recent market prices are both used in estimating fair value based on a discounted cash flow method. Subordinated deferrable debt is classified within Level 2 of the fair value hierarchy.

#### Members' Subordinated Certificates

Members' subordinated certificates include (i) membership subordinated certificates issued to our members, (ii) loan and

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guarantee subordinated certificates issued as a condition of obtaining loan funds or guarantees and (iii) member capital securities issued as voluntary investments by our members. All members' subordinated certificates are nontransferable other than among members with CFC's consent and there is no ready market from which to obtain fair value quotes. These certificates are valued at par and are classified within Level 3 of the fair value hierarchy.

#### Derivative Instruments

We account for derivative instruments in the consolidated balance sheets as either an asset or liability measured at fair value. We only enter into swap agreements with counterparties that are participating in our revolving lines of credit at the time the exchange agreements are executed. All of our swap agreements are subject to master netting agreements. There is not an active secondary market for the types of interest rate swaps we use. We determine the fair value of our derivatives using models that incorporate observable market inputs, such as spot LIBOR rates, Eurodollar futures contracts and market swap rates. These inputs can vary depending on the type of derivatives and nature of the underlying rate, price or index upon which the derivative's value is based. The impact of counterparty non-performance risk is considered when measuring the fair value of derivative assets. Internal pricing is compared against additional pricing sources, such as external valuation agents and other sources. Pricing variances among different pricing sources are analyzed and validated. The technique for determining the fair value for our interest rate swaps is classified as Level 2.

#### Commitments

The fair value of our commitments is estimated based on the carrying value, or zero. Extensions of credit under these commitments, if exercised, would result in loans priced at market rates.

#### Recurring Fair Value Measurements

The following table presents the carrying value and fair value of financial instruments reported in our consolidated financial statements at fair value on a recurring basis as of May 31, 2017 and 2016 and the classification of the valuation technique within the fair value hierarchy.

(Dollars in thousands)	May 31, 2017			2016		
	Level 1	Level 2	Total	Level 1	Level 2	Total
Investment securities available for sale	\$92,554	\$	-\$92,554			