

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORP /DC/
Form 10-K
August 01, 2017

UNITED STATES
SECURITIES AND EXCHANGE
Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended May 31, 2017

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF
1934

For the transition period from _____ to _____

Commission File Number: 1-7102

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
(Exact name of registrant as specified in its charter)

District of Columbia 52-0891669
(State or other jurisdiction of incorporation or organization) (I.R.S. employer identification no.)
20701 Cooperative Way, Dulles, Virginia, 20166
(Address of principal executive offices) (Zip Code)
Registrant's telephone number, including area code: (703) 467-1800

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
6.55% Collateral Trust Bonds, due 2018	New York Stock Exchange
7.35% Collateral Trust Bonds, due 2026	New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form

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.

TABLE OF CONTENTS

	Page
<u>PART I</u>	
<u>Item 1.</u> <u>Business</u>	<u>1</u>
<u>Overview</u>	<u>1</u>
<u>Our Business</u>	<u>2</u>
<u>Loan Programs</u>	<u>3</u>
<u>Guarantee Programs</u>	<u>6</u>
<u>Investment Policy</u>	<u>7</u>
<u>Industry</u>	<u>7</u>
<u>Lending Competition</u>	<u>9</u>
<u>Regulation</u>	<u>10</u>
<u>Members</u>	<u>11</u>
<u>Tax Status</u>	<u>13</u>
<u>Allocation and Retirement of Patronage Capital</u>	<u>14</u>
<u>Employees</u>	<u>15</u>
<u>Available Information</u>	<u>15</u>
<u>Item 1A.</u> <u>Risk Factors</u>	<u>15</u>
<u>Item 1B.</u> <u>Unresolved Staff Comments</u>	<u>19</u>
<u>Item 2.</u> <u>Properties</u>	<u>20</u>
<u>Item 3.</u> <u>Legal Proceedings</u>	<u>20</u>
<u>Item 4.</u> <u>Mine Safety Disclosures</u>	<u>20</u>
<u>PART II</u>	
<u>Item 5.</u> <u>Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	<u>20</u>
<u>Item 6.</u> <u>Selected Financial Data</u>	<u>21</u>
<u>Item 7.</u> <u>Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”)</u>	<u>23</u>
<u>Introduction</u>	<u>23</u>
<u>Executive Summary</u>	<u>23</u>
<u>Critical Accounting Policies and Estimates</u>	<u>26</u>
<u>Accounting Changes and Developments</u>	<u>28</u>
<u>Consolidated Results of Operations</u>	<u>29</u>
<u>Consolidated Balance Sheet Analysis</u>	<u>37</u>
<u>Off-Balance Sheet Arrangements</u>	<u>46</u>
<u>Risk Management</u>	<u>49</u>
<u>Credit Risk</u>	<u>50</u>
<u>Liquidity Risk</u>	<u>59</u>
<u>Market Risk</u>	<u>68</u>
<u>Operational Risk</u>	<u>71</u>
<u>Non-GAAP Financial Measures</u>	<u>71</u>
<u>Item 7A.</u> <u>Quantitative and Qualitative Disclosures about Market Risk</u>	<u>77</u>
<u>Item 8.</u> <u>Financial Statements and Supplementary Data</u>	<u>77</u>
<u>Reports of Independent Registered Public Accounting Firm</u>	<u>78</u>
<u>Consolidated Statements of Operations</u>	<u>79</u>
<u>Consolidated Statements of Comprehensive Income</u>	<u>80</u>
<u>Consolidated Balance Sheets</u>	<u>81</u>

<u>Consolidated Statements of Changes in Equity</u>	<u>82</u>
<u>Consolidated Statements of Cash Flows</u>	<u>83</u>
<u>Notes to Consolidated Financial Statements</u>	<u>85</u>
<u>Note 1 — Summary of Significant Accounting Policies</u>	<u>85</u>
<u>Note 2 — Variable Interest Entities</u>	<u>95</u>
<u>Note 3 — Investment Securities</u>	<u>96</u>
<u>Note 4 — Loans and Commitments</u>	<u>97</u>
<u>Note 5 — Foreclosed Assets</u>	<u>106</u>
<u>Note 6 — Short-Term Borrowings</u>	<u>107</u>
<u>Note 7 — Long-Term Debt</u>	<u>109</u>
<u>Note 8 — Subordinated Deferrable Debt</u>	<u>111</u>
<u>Note 9 — Members’ Subordinated Certificates</u>	<u>111</u>
<u>Note 10 — Derivative Instruments and Hedging Activities</u>	<u>113</u>
<u>Note 11 — Equity</u>	<u>116</u>
<u>Note 12 — Employee Benefits</u>	<u>119</u>
<u>Note 13 — Guarantees</u>	<u>121</u>
<u>Note 14 — Fair Value Measurement</u>	<u>123</u>
<u>Note 15 — Business Segments</u>	<u>128</u>
<u>Supplementary Data</u>	<u>132</u>
<u>Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	<u>133</u>
<u>Item 9A. Controls and Procedures</u>	<u>133</u>
<u>Item 9B. Other Information</u>	<u>134</u>
<u>PART III</u>	
<u>Item 10. Directors, Executive Officers and Corporate Governance</u>	<u>135</u>
<u>Item 11. Executive Compensation</u>	<u>145</u>
<u>Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	<u>156</u>
<u>Item 13. Certain Relationships and Related Transactions, and Director Independence</u>	<u>156</u>
<u>Item 14. Principal Accounting Fees and Services</u>	<u>159</u>
<u>PART IV</u>	
<u>Item 15. Exhibits, Financial Statement Schedules</u>	<u>161</u>
<u>SIGNATURES</u>	<u>162</u>
<u>EXHIBIT INDEX</u>	<u>165</u>

INDEX OF MD&A TABLES

Table	Description	Page
—	MD&A Tables:	
1	Average Balances, Interest Income/Interest Expense and Average Yield/Cost	30
2	Rate/Volume Analysis of Changes in Interest Income/Interest Expense	32
3	Non-Interest Income	34
4	Derivative Average Notional Amounts and Average Interest Rates	35
5	Derivative Gains (Losses)	36
6	Non-Interest Expense	37
7	Loans Outstanding by Type and Member Class	38
8	Historical Retention Rate and Repricing Selection	39
9	Long-Term Loan Scheduled Repayments	39
10	Debt Product Types	40
11	Total Debt Outstanding and Weighted-Average Interest Rates	41
12	Member Investments	43
13	Collateral Pledged	44
14	Unencumbered Loans	44
15	Equity	45
16	Guarantees Outstanding	46
17	Maturities of Guarantee Obligations	47
18	Unadvanced Loan Commitments	47
19	Notional Maturities of Unadvanced Loan Commitments	48
20	Maturities of Notional Amount of Unconditional Committed Lines of Credit	49
21	Loan Portfolio Security Profile	51
22	Loan Geographic Concentration	53
23	Credit Exposure to 20 Largest Borrowers	54
24	TDR Loans	55
25	Nonperforming Loans	56
26	Net Charge-Offs (Recoveries)	56
27	Allowance for Loan Losses	57
28	Rating Triggers for Derivatives	59
29	Short-Term Borrowings	60
30	Liquidity Reserve	61
31	Committed Bank Revolving Line of Credit Agreements	62
32	Issuances and Maturities of Long-Term and Subordinated Debt	64
33	Credit Ratings	64
34	Projected Sources and Uses of Liquidity	65
35	Contractual Obligations	66
36	Financial Covenant Ratios Under Committed Bank Revolving Line of Credit Agreements	66
37	Financial Ratios Under Debt Indentures	67
38	Interest Rate Gap Analysis	69
39	Financial Instruments	70
40	Loan Repricing	70
41	Adjusted Financial Measures — Income Statement	73
42	TIER and Adjusted TIER	73
43	Adjusted Financial Measures — Balance Sheet	75
44	Leverage and Debt-to-Equity Ratios	75

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

1

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

3

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.

6

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;
-

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

Edgar Filing: NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORP /DC/ - Form 10-K
electric cooperative industry by those entities was as follows as of December 31, 2016 and 2015:

9

(Dollars in thousands)	December 31,			
	2016		2015	
	Debt Outstanding	% of Total	Debt Outstanding	% of Total
Total long-term debt reported by members: ⁽¹⁾				
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 %

⁽¹⁾ 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.
The

10

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

12

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 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. 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

15

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.

19

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
Statement of operations							
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) ⁽¹⁾	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 ⁽²⁾	(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
Adjusted operational financial measures							
Adjusted interest expense ⁽³⁾	\$(826,216)	\$(770,608)	\$(718,590)	\$(728,617)	\$(748,486)	7%	7%
Adjusted net interest income ⁽³⁾	210,418	242,028	234,386	228,923	207,267	(13)	3

Adjusted net income ⁽³⁾	132,718	169,567	95,166	153,385	216,783	(22)	78
------------------------------------	---------	---------	--------	---------	---------	------	----

(Dollars in thousands)	May 31,					Increase/(Decrease)	
	2017	2016	2015	2014	2013	2017 vs. 2016	2016 vs. 2015
Balance sheet							
Cash, investments and time deposits	\$485,169	\$632,480	\$818,308	\$943,892	\$908,694	(23)%	(23)%
Loans to members ⁽⁴⁾	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 ⁽⁵⁾	889,617	909,208	986,500	1,064,822	1,112,771	(2)	(8)
Selected ratios⁽⁶⁾							
Fixed-charge coverage ratio/TIER ⁽⁷⁾	1.42	0.92	0.97	1.29	1.52	50 bps	(5) bps
Adjusted TIER ⁽³⁾	1.16	1.22	1.13	1.21	1.29	(6)	9
Net interest yield ⁽⁸⁾	1.20	1.43	1.47	1.42	1.31	(23)	(4)
Adjusted net interest yield ⁽⁹⁾	0.86	1.05	1.08	1.07	1.03	(19)	(3)
Net charge-off (recovery) rate ⁽¹⁰⁾	0.01	0.00	0.00	0.01	0.10	1	0
Allowance coverage ratio ⁽¹¹⁾	0.15	0.14	0.16	0.28	0.27	1	(2)
Leverage ratio ⁽¹²⁾	22.75	29.81	25.14	22.97	27.53	(706)	467
Adjusted leverage ratio ⁽³⁾	6.19	6.08	6.58	6.24	6.11	11	(50)
Debt-to-equity ratio ⁽¹³⁾	21.94	28.69	24.06	21.87	26.16	(675)	463
Adjusted debt-to-equity ratio ⁽³⁾	5.95	5.82	6.26	5.90	5.76	13	(44)

**Change is not meaningful.

⁽¹⁾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.

⁽²⁾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.

⁽³⁾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.

⁽⁴⁾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.

⁽⁵⁾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 ⁽¹⁾	\$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 ⁽²⁾	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 ⁽³⁾	—	(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 ⁽⁴⁾		1.03 %		1.29 %		1.34 %
Impact of non-interest bearing funding ⁽⁵⁾		0.17		0.14		0.13
Net interest income/net interest yield ⁽⁶⁾	\$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 ⁽⁷⁾	84,478	0.80	88,758	0.89	82,906	0.94
Adjusted interest expense/adjusted average cost ⁽⁸⁾	\$826,216	3.55 %	\$770,608	3.50 %	\$718,590	3.48 %
Adjusted net interest spread ⁽⁴⁾		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 ⁽⁹⁾	\$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: ⁽¹⁾		Total Variance	Variance due to: ⁽¹⁾	
		Volume	Rate		Volume	Rate
Interest income:						
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)
Total loans	21,298	58,467	(37,169)	58,946	80,583	(21,637)
Cash, investments and time deposits	2,700	1,286	1,414	714	(1,650)	2,364
Interest income	\$23,998	\$59,753	\$(35,755)	\$59,660	\$78,933	\$(19,273)
Interest expense:						
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)
Interest expense	59,888	42,233	17,655	46,166	62,508	(16,342)
Net interest income	\$(35,890)	\$17,520	\$(53,410)	\$13,494	\$16,425	\$(2,931)
Adjusted net interest income:						
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 ⁽²⁾	(4,280)	5,304	(9,584)	5,852	11,122	(5,270)
Adjusted interest expense ⁽³⁾	55,608	47,537	8,071	52,018	73,630	(21,612)
Adjusted net interest income	\$(31,610)	\$12,216	\$(43,826)	\$7,642	\$5,303	\$2,339

⁽¹⁾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.

⁽²⁾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.

⁽³⁾ 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

Edgar Filing: NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORP /DC/ - Form 10-K
advances to fund capital investments and refinanced with us loans made by other lenders.

32

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.

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: ⁽¹⁾										
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 ⁽²⁾	\$24,356	100 %	\$23,153	100 %	\$21,459	100 %	\$20,467	100 %	\$20,296	100 %
Loans by member class: ⁽¹⁾										
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 ⁽²⁾	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 ⁽²⁾	\$24,356	100 %	\$23,153	100 %	\$21,459	100 %	\$20,467	100 %	\$20,296	100 %

⁽¹⁾ Includes TDR loans.

⁽²⁾ 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⁽¹⁾

(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 %

⁽¹⁾ 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 ⁽¹⁾	Up to 30 years	Capital markets	Secured
Guaranteed Underwriter Program notes payable ⁽²⁾	Up to 20 years	U.S. government	Secured
Farmer Mac notes payable ⁽³⁾	Up to 16 years	Private placement	Secured
Medium-term notes	9 months to 30 years	Capital markets, members and affiliates	Unsecured
Other notes payable ⁽⁴⁾	Up to 30 years	Private placement	Both
Subordinated deferrable debt ⁽⁵⁾	Up to 30 years	Capital markets	Unsecured
Members' subordinated certificates ⁽⁶⁾	Up to 100 years	Members	Unsecured

⁽¹⁾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.

⁽²⁾ 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.

⁽³⁾ 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.

⁽⁴⁾ 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.

⁽⁵⁾ 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.

⁽⁶⁾ 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	
	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 ⁽¹⁾	87	%	88	%	81	%
Variable rate ⁽²⁾	13		12		19	
Total	100	%	100	%	100	%

Maturity classification:⁽³⁾

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

41

(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.

43

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 ⁽¹⁾	100	150	117	110
Farmer Mac notes payable	100	150	117	117
Clean Renewable Energy Bonds Series 2009A	100	150	113	115

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

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

⁽²⁾ Reflects unpaid principal balance of pledged loans.

⁽³⁾ 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, 2017	2016	Change
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) ⁽¹⁾	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

⁽¹⁾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

45

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

46

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 Maturities of Guaranteed Obligations						
	Balance	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 ⁽¹⁾	\$5,170,393	41 %	\$6,248,546	47 %	\$(1,078,153)
Unconditional ⁽²⁾	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 ⁽¹⁾	4,802,319	38	4,508,562	34	293,757
Total unadvanced loan commitments	\$12,574,974	100%	\$13,205,010	100%	\$(630,036)

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

⁽²⁾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⁽¹⁾

	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

⁽¹⁾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, 2017			2016		
	Number	Percentage	of Total	Number	Percentage	of Total
	of Loans	of Loans	Outstanding	of Loans	of Loans	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 ⁽¹⁾	0.01	% —	% —	% 0.01	% 0.10

⁽¹⁾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%

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.

58

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- ⁽¹⁾	\$59,165	\$(13,713)	\$ —	—\$ (13,713)
Falls below Baa1/BBB+	7,008,763	(208,022)	—	(208,022)
Falls to or below Baa2/BBB ⁽²⁾	459,106	(646)	—	(646)
Falls below Baa3/BBB-	268,691	(23,581)	—	(23,581)
Total	\$7,795,725	\$(245,962)	\$ —	—\$ (245,962)

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

⁽²⁾ 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
May 31, 2016						
(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
May 31, 2015						
(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.

60

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.

61

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 ⁽¹⁾
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		

⁽¹⁾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⁽¹⁾

(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 ⁽¹⁾	\$2,942,516	\$2,488,950	\$ 453,566

⁽¹⁾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 ⁽¹⁾	A2	A	A
Senior secured debt ⁽²⁾	A1	A	A+
Senior unsecured debt ⁽³⁾	A2	A	A
Commercial paper	P-1	A-1	F1
Outlook	Stable	Stable	Stable

⁽¹⁾Based on our senior unsecured debt rating.

⁽²⁾Applies to our collateral trust bonds.

⁽³⁾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⁽¹⁾

(Dollars in millions)	Projected Sources of Liquidity			Projected Uses of Liquidity			Other ⁽⁴⁾	Cumulative Excess Sources/(Uses) of Liquidity ⁽⁵⁾
	Long-Term Debt Issuance	Anticipated Loan Repayments ⁽²⁾	Total Projected Sources of Liquidity	Long-Term Debt Maturities ⁽³⁾	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)	

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

⁽²⁾Anticipated loan repayments include scheduled loan amortizations, repricings and sales.

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

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

⁽⁵⁾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

65

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⁽¹⁾

(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 ⁽²⁾	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 ⁽³⁾	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

⁽¹⁾ Callable debt is included in this table at its contractual maturity.

⁽²⁾ 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.

⁽³⁾ 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⁽¹⁾

	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

(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 ⁽¹⁾	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 ⁽¹⁾	—	15	25	110	325	829	1,304
Total liabilities and members' equity ⁽²⁾	\$2,414	\$3,085	\$2,634	\$6,123	\$4,627	\$2,565	\$21,448
Gap ⁽³⁾	\$(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 ⁽⁴⁾	(1.17)	(0.40)	(0.16)	(3.62)	2.56	2.74	

⁽¹⁾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.

⁽²⁾Debt is presented based on the call date.

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

⁽⁴⁾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 ⁽¹⁾	\$ 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 ⁽²⁾	\$ 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 ⁽³⁾	\$ 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

⁽¹⁾ 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.

⁽²⁾ 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.

⁽³⁾ 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

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 ⁽¹⁾	1.42	0.92	0.97	1.29	1.52
Adjusted TIER ⁽²⁾	1.16	1.22	1.13	1.21	1.29

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

⁽²⁾ 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 ⁽¹⁾	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 ⁽²⁾	\$889,617	\$909,208	\$986,500	\$1,064,822	\$1,112,771

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

⁽²⁾ 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 ⁽¹⁾	22.75	29.81	25.14	22.97	27.53
Adjusted leverage ratio ⁽²⁾	6.19	6.08	6.58	6.24	6.11
Debt-to-equity ratio ⁽³⁾	21.94	28.69	24.06	21.87	26.16
Adjusted debt-to-equity ratio ⁽⁴⁾	5.95	5.82	6.26	5.90	5.76

⁽¹⁾ 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.

⁽²⁾ 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.

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

⁽⁴⁾ 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

Page
Reports
of
Independent
~~Registered~~
Public
Accounting
Firm
Consolidated
Statements
of
Operations
for
the
~~Years~~
~~Ended~~
May
31,
2017,
2016
and
2015
Consolidated
Statements
of
Comprehensive
Income
for
the
~~Years~~
~~Ended~~
May
31,
2017,
2016
and
2015
~~Consolidated~~
Balance
Sheets
as
of

May
31,
2017
and
2016
Consolidated
Statements
of
Changes
in
Equity
for
the
~~82~~
Years
Ended
May
31,
2017,
2016
and
2015
Consolidated
Statements
of
Cash
Flows
for
the
~~82~~
Years
Ended
May
31,
2017,
2016
and
2015
Notes
to
~~85~~
Consolidated
Financial
Statements
Note
1
— Summary
~~86~~
Significant
Accounting
Policies
~~90~~
Note
2
— Variable

Interest

Entities

Note

36 Investment

Securities

Note

4

97 Loans

and

Commitments

Note

5
106 Foreclosed

Assets

Note

67- Short-Term

Borrowings

Note

79- Long-Term

Debt

Note

8—

Subordinated

Deferrable

Debt

Note

9

11 Members'

Subordinated

Certificates

Note

10—

Derivative

Instruments

and

Hedging

Activities

Note 11 — Equity

Note 12 —

Employee

Benefits

Note 13 — Guarantees

Note 14 — Fair

Value

Measurement

Note 15

128 Business

Segments

Supplementary

Data

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