

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORP /DC/
Form 10-Q
January 11, 2019

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

FORM 10-Q

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

For the quarterly period ended November 30, 2018

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

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 every Interactive Data File required to be submitted 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 such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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

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PART I—FINANCIAL INFORMATION

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”) FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains certain statements that are considered “forward-looking statements” within the Securities Act of 1933, as amended, and the Securities 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,” “expect,” “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, technological changes within the rural electric utility industry, 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” in our Annual Report on Form 10-K for the fiscal year ended May 31, 2018 (“2018 Form 10-K”). 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.

INTRODUCTION

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 and transmission (“power supply”) systems 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. 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. NCSC is a taxable member-owned cooperative that may provide financing to members of CFC, government or quasi-government entities which own electric utility systems that meet the Rural Electrification Act definition of “rural” and for-profit and nonprofit entities that are owned, operated or controlled by, or provide significant benefits to certain members of CFC. RTFC is a taxable Subchapter T cooperative association that provides financing for its rural telecommunications members and their affiliates. CFC did not hold, and did not have any subsidiaries or other entities that held, foreclosed assets as of November 30, 2018 or May 31, 2018. See “Item 1. Business—Overview” in our 2018 Form 10-K for additional 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.

Our principal operations are currently organized for management reporting purposes into three business segments: CFC, NCSC and RTFC. Loans to members totaled \$25,294 million as of November 30, 2018, of which 96% was attributable to CFC. Total revenue, which consists of net interest income and fee and other income, was \$153 million for the six months ended November 30, 2018, of which 99% was attributable to CFC. We provide information on the financial performance of each of our business segments in “Note 13—Business Segments.”

Management monitors a variety of key indicators to evaluate our business performance. The following MD&A is intended to provide the reader with an understanding of our consolidated results of operations, financial condition and liquidity by discussing the factors influencing 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. The MD&A section is provided as a supplement to, and should be read in conjunction with our unaudited condensed consolidated financial statements and related notes in this Report, our audited consolidated financial statements and related notes in our 2018 Form 10-K and additional information contained in our 2018 Form 10-K, including the risk factors discussed under “Part I—Item 1A. Risk Factors,” as well as any risk factors identified under “Part II—Item 1A. Risk Factors” in this Report.

SUMMARY OF SELECTED FINANCIAL DATA

Table 1 provides a summary of consolidated selected financial data for the three and six months ended November 30, 2018 and 2017, and as of November 30, 2018 and May 31, 2018. 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 are adjusted net income, adjusted net interest income, adjusted interest expense, adjusted net interest yield, adjusted times interest earned ratio (“adjusted TIER”) and adjusted debt-to-equity ratio. The most comparable GAAP measures are net income, net interest income, interest expense, net interest yield, TIER and debt-to-equity 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 and exclude cumulative derivative forward value gains and losses and accumulated other comprehensive income (“AOCI”). 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 certain financial covenants in our committed bank revolving line of credit agreements and debt indentures are based on adjusted measures. See “Non-GAAP Financial Measures” for a detailed reconciliation of these adjusted measures to the most comparable GAAP measures.

Table 1: Summary of Selected Financial Data

(Dollars in thousands)	Three Months Ended November 30,			Six Months Ended November 30,		
	2018	2017	Change	2018	2017	Change
Statement of income						
Interest income	\$281,253	\$265,823	6%	\$559,744	\$531,738	5%
Interest expense	(204,166)	(195,170)	5	(414,397)	(387,901)	7
Net interest income	77,087	70,653	9	145,347	143,837	1
Fee and other income	4,321	5,542	(22)	7,506	9,487	(21)
Total revenue	81,408	76,195	7	152,853	153,324	—
Benefit for loan losses	1,788	304	488	1,897	602	215
Derivative gains ⁽¹⁾	63,343	125,593	(50)	70,526	79,395	(11)
Results of operations of foreclosed assets	—	(10)	**	—	(34)	**
Operating expenses ⁽²⁾	(23,870)	(21,914)	9	(47,075)	(43,550)	8
Other non-interest expense	(2,700)	(618)	337	(10,194)	(1,140)	794
Income before income taxes	119,969	179,550	(33)	168,007	188,597	(11)
Income tax expense	(243)	(827)	(71)	(303)	(859)	(65)
Net income	\$119,726	\$178,723	(33)	\$167,704	\$187,738	(11)
Adjusted operational financial measures						
Adjusted interest expense ⁽³⁾	\$(215,971)	\$(214,805)	1%	\$(439,031)	\$(427,758)	3%
Adjusted net interest income ⁽³⁾	65,282	51,018	28	120,713	103,980	16
Adjusted net income ⁽³⁾	44,578	33,495	33	72,544	68,486	6
Selected ratios						
Fixed-charge coverage ratio/TIER ⁽⁴⁾	1.59	1.92	(33) bps	1.40	1.48	(8) bps
Adjusted TIER ⁽³⁾	1.21	1.16	5	1.17	1.16	1
Net interest yield ⁽⁵⁾	1.19	% 1.12	% 7	1.12	% 1.14	% (2)
Adjusted net interest yield ⁽³⁾⁽⁶⁾	1.01	0.81	20	0.93	0.83	10

	November 30, 2018	May 31, 2018	Change
Balance sheet			
Cash, cash equivalents and restricted cash	\$242,932	\$238,824	2%
Investment securities	645,059	609,851	6
Loans to members ⁽⁷⁾	25,294,175	25,178,608	—
Allowance for loan losses	(16,904)	(18,801)	(10)
Loans to members, net	25,277,271	25,159,807	—
Total assets	26,829,758	26,690,204	1
Short-term borrowings	4,100,606	3,795,910	8
Long-term debt	18,477,156	18,714,960	(1)
Subordinated deferrable debt	742,480	742,410	—
Members' subordinated certificates	1,376,689	1,379,982	—
Total debt outstanding	24,696,931	24,633,262	—
Total liabilities	25,202,620	25,184,351	—
Total equity	1,627,138	1,505,853	8
Guarantees ⁽⁸⁾	771,422	805,161	(4)
Selected ratios period end			
Allowance coverage ratio ⁽⁹⁾	0.07	% 0.07	% —
Debt-to-equity ratio ⁽¹⁰⁾	15.49	16.72	(123)
Adjusted debt-to-equity ratio ⁽³⁾	6.15	6.18	(3)

** Calculation of percentage change is not meaningful.

(1) Consists of interest rate swap cash settlements and 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 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 income.

(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) 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.

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

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

(7) Consists of the outstanding principal balance of member loans plus unamortized deferred loan origination costs, which totaled \$11 million as of both November 30, 2018 and May 31, 2018.

(8) 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. See "Note 11—Guarantees" for additional information.

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

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

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 for our interest rate swaps. As a result, the mark-to-market changes in our interest rate swaps are recorded in earnings. Based on the composition of our interest rate swaps, 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 the periodic cash settlement amounts of our interest rate swaps. As such, management uses our adjusted non-GAAP results to evaluate our operating performance. Our adjusted results include realized net periodic interest rate swap settlement amounts but exclude the impact of unrealized forward fair value gains and losses. Our financial debt covenants are also based on our non-GAAP adjusted results, as the forward fair value gains and losses related to our interest rate swaps do not affect our cash flows, liquidity or ability to service our debt.

Financial Performance

Reported Results

We reported net income of \$120 million and a TIER of 1.59 for the quarter ended November 30, 2018 (“current quarter”), compared with net income of \$179 million and a TIER of 1.92 for the same prior-year quarter. We reported net income of \$168 million and a TIER of 1.40 for the six months ended November 30, 2018, compared with net income of \$188 million and a TIER of 1.48 for the same prior-year period. Our debt-to-equity ratio decreased to 15.49 as of November 30, 2018, from 16.72 as of May 31, 2018, primarily due to an increase in equity resulting from our reported net income of \$168 million for the six months ended November 30, 2018, which was partially offset by patronage capital retirement of \$48 million in August 2018.

The decrease in reported net income of \$59 million in the current quarter from the same-prior year quarter was primarily due to a decrease in derivative gains of \$63 million. We recognized derivative gains of \$63 million in the current quarter, compared with derivative gains of \$126 million in the same prior-year quarter. The derivative gains in both periods were attributable to increases in the fair value of our pay-fixed swaps as interest rates increased across the swap curve during each period. The rise in medium- and longer-term rates, however, was not as pronounced during the current quarter, which resulted in lower derivative gains relative to the same prior-year quarter. The decrease in derivative gains of \$63 million was partially offset by an increase in net interest income of \$6 million. The increase in net interest income resulted from the combined impact of an increase in the net interest yield of 7 basis

points to 1.19% and an increase in average interest-earning assets of \$766 million, or 3%.

The decrease in our reported net income of \$20 million for the six months ended November 30, 2018 was primarily driven by a decrease in derivative gains of \$8 million, a loss on the early extinguishment of debt of \$7 million and an increase in operating expenses of \$4 million. We recognized derivative gains of \$71 million for the six months ended November 30, 2018, compared with derivative gains of \$79 million during the comparable prior-year period. Net interest income increased slightly by \$2 million, driven by an increase in average interest-earning assets of \$918 million, or 4%, which was partially

offset by a decline in the net interest yield of 2 basis points to 1.12%. The decline in the net interest yield was largely attributable to an increase in our overall average cost of funds due to a higher average cost for our short-term and variable-rate borrowings as a result of the rise in short-term interest rates.

On July 12, 2018, we early redeemed \$300 million aggregate principal amount of our 10.375% collateral trust bonds due November 1, 2018, and repaid the remaining \$700 million principal amounts of these bonds at maturity. We replaced this higher-cost debt with lower cost funding, which reduced our interest expense and had a favorable impact on our average cost of funds and net interest yield for the current quarter and six months ended six months ended November 30, 2018.

Adjusted Non-GAAP Results

Our adjusted net income totaled \$45 million and our adjusted TIER was 1.21 for the current quarter, compared with adjusted net income of \$33 million and adjusted TIER of 1.16 for the same prior-year quarter. Our adjusted net income totaled \$73 million and our adjusted TIER was 1.17 for the six months ended November 30, 2018, compared with adjusted net income of \$68 million and adjusted TIER of 1.16 for the same prior-year period. Our adjusted debt-to-equity ratio decreased to 6.15 as of November 30, 2018, from 6.18 as of May 31, 2018, primarily attributable to an increase in adjusted equity due to our adjusted net income of \$73 million, which was partially offset by the patronage capital retirement of \$48 million.

The increase in adjusted net income of \$12 million, or in the current quarter from the same prior-year quarter was primarily driven by an increase in adjusted net interest income of \$14 million, which was partially offset by an increase in operating expenses of \$2 million. The increase in adjusted net interest income was driven by an increase in the adjusted net interest yield of 20 basis points to 1.01% and the increase in average interest-earning assets. The increase in the adjusted net interest yield reflected the combined impact of an increase in the average yield on interest-earning assets of 11 basis points to 4.34% and a decline in our adjusted average cost of funds of 10 basis points to 3.53%.

The increase in adjusted net income of \$5 million during the six months ended November 30, 2018, was primarily driven by an increase in adjusted net interest income of \$17 million, which was partially offset by the loss on the early extinguishment of debt of \$7 million and an increase in operating expenses of \$4 million. The increase in adjusted net interest income was attributable to an increase in the adjusted net interest yield of 10 basis point to 0.93% and the increase in average interest-earning assets. The increase in the adjusted net interest yield reflected the combined impact of an increase in the average yield on interest earning assets of 6 basis points to 4.29% and a decline in our adjusted average cost of funds of 3 basis points to 3.57%.

The decrease in the average cost of funds in the current quarter and for the six months ended November 30, 2018 was primarily due to a reduction in adjusted interest expense from the early redemption and maturity of the \$1 billion aggregate principal amount of the 10.375% collateral trust bonds and a reduction in net periodic derivative cash settlement amounts. The reduction in net periodic derivative cash settlements was attributable to the rise in short-term interest rates, which resulted in an increase in the periodic floating interest rate amounts due to us on our pay-fixed swaps, as the floating interest rate payment amounts are typically determined based on the 3-month London Interbank Offered Rate ("LIBOR").

Lending Activity

Loans to members totaled \$25,294 million as of November 30, 2018, an increase of \$116 million from May 31, 2018. CFC distribution loans increased by \$261 million, which was partially offset by decreases in CFC power supply loans, NCSC loans and RTFC loans of \$133 million, \$19 million and \$8 million, respectively.

Long-term loan advances totaled \$814 million during the six months ended November 30, 2018, with approximately 83% of those advances for capital expenditures by members and 14% for the refinancing of loans made by other lenders. In comparison, long-term loan advances totaled \$1,127 million during the prior year six months ended November 30, 2017, with approximately 58% of those advances for capital expenditures and 31% for refinancing of loans made by other lenders. The decrease in long-term loan advances from the same prior-year period reflects weaker demand from borrowers, due in part to more limited refinancings by our members of loans made by other lenders. In addition, although growth in U.S. electricity consumption has been relatively stagnant over the last several years, many of our members had an overall more profitable year due to an increase in electricity consumption as a result of weather conditions, which reduced their need for long-term borrowings.

CFC had long-term fixed-rate loans totaling \$439 million that were scheduled to reprice during the six months ended November 30, 2018. Of this total, \$296 million repriced to a new long-term fixed rate; \$88 million repriced to a long-term variable rate; and \$55 million was repaid in full.

Credit Quality

The overall credit quality of our loan portfolio remained high as of November 30, 2018, as evidenced by our strong credit performance metrics. We had no delinquent or nonperforming loans as of November 30, 2018, and no loan defaults or charge-offs during the six months ended November 30, 2018. Outstanding loans to electric utility organizations represented approximately 99% of total outstanding loan portfolio as of November 30, 2018, unchanged from May 31, 2018. We historically have had limited defaults and losses on loans in our electric utility loan portfolio. We generally lend to members on a senior secured basis, which reduces the risk of loss in the event of a borrower default. Of our total loans outstanding, 93% were secured and 7% were unsecured as of both November 30, 2018 and May 31, 2018.

Financing Activity

We issue debt primarily to fund growth in our loan portfolio. As such, our outstanding debt volume generally increases and decreases in response to member loan demand. Total debt outstanding increased by \$64 million to \$24,697 million as of November 30, 2018, from May 31, 2018, resulting from the modest increase in loans to members. Increases in dealer medium-term notes of \$272 million and in member commercial paper, select notes and daily liquidity fund notes of \$433 million were largely offset by decreases in collateral trust bonds and Federal Agricultural Mortgage Corporation (“Farmer Mac”) notes payable of \$553 million and \$128 million, respectively. Outstanding dealer commercial paper of \$1,059 million as of November 30, 2018 was below our targeted limit of \$1,250 million.

On October 31, 2018, we issued \$325 million aggregate principal amount of 3.90% collateral trust bonds due 2028 and \$300 million aggregate principal amount of 4.40% collateral trust bonds due 2048.

On November 15, 2018, we closed on a \$750 million committed loan facility (“Series N”) from the Federal Financing Bank under the Guaranteed Underwriter Program of the USDA (“Guaranteed Underwriter Program”). Pursuant to this facility, we may borrow any time before July 15, 2023. Each advance is subject to quarterly amortization and a final maturity not longer than 20 years from the advance date. With the closing of this committed loan facility, the amount available for access under the Guaranteed Underwriter Program increased to \$1,875 million as of November 30, 2018.

On November 28, 2018, we amended the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 28, 2021 and November 28, 2023, respectively, and to terminate certain bank commitments totaling \$53 million under the three-year agreement and \$57 million under the five-year agreement. The total commitment amount under the amended three-year and five-year bank revolving line of credit agreements is \$1,440 million and \$1,535 million, respectively, resulting in a combined total commitment amount under the two facilities of \$2,975 million.

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

Outlook for the Next 12 Months

We currently expect that our net interest income, adjusted net interest income, net income, adjusted net income, tier, adjusted tier, net interest yield and adjusted net interest yield will increase over the next 12 months as a result of a

projected decrease in our average cost of funds largely due to the early redemption and maturity of higher-cost debt, including the \$1 billion aggregate principal amount of 10.375% collateral trust bonds due November 1, 2018. We have replaced this higher-cost debt with lower cost funding, which we expect will contribute to a continued reduction in our average cost of funds and adjusted average cost of funds.

Long-term debt scheduled to mature over the next 12 months totaled \$2,318 million as of November 30, 2018. We believe we have sufficient liquidity from the combination of existing cash and cash equivalents, member loan repayments, committed bank revolving lines of credit, committed loan facilities under the Guaranteed Underwriter Program, revolving

note purchase agreements with Farmer Mac 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 November 30, 2018, sources of liquidity readily available for access totaled \$7,811 million, consisting of (i) \$227 million in cash and cash equivalents; (ii) up to \$1,875 million available under committed loan facilities under the Guaranteed Underwriter Program; (iii) up to \$2,972 million available for access 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 \$2,437 million available under a revolving note purchase agreement with Farmer Mac, subject to market conditions.

We believe we can continue to roll over outstanding member short-term debt of \$3,042 million as of November 30, 2018, based on our expectation that our members will continue to reinvest their excess cash in our commercial paper, daily liquidity fund notes, select notes and medium-term notes. We expect to continue accessing the dealer commercial paper market to help meet our liquidity needs. Although the intra-period amount of outstanding dealer commercial paper may fluctuate based on our liquidity requirements, we intend to manage our short-term wholesale funding risk by maintaining outstanding dealer commercial paper at an amount near or 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 roll-over risk, as we can draw on these facilities to repay dealer or member commercial paper that cannot be refinanced with similar debt.

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 6.15 as of November 30, 2018, above our targeted threshold. Based on our forecast of loan advances and adjusted equity over the next 12 months, we anticipate that our adjusted debt-to-equity ratio will remain above the target and near the current ratio.

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" in our 2018 Form 10-K.

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 key inputs and assumptions used in our critical accounting policies during the six months ended November 30, 2018. Management has discussed significant judgments and assumptions in applying our critical accounting policies with the Audit Committee of our board of directors. We provide additional information on our critical accounting policies and estimates under "MD&A—Critical Accounting Policies and Estimates" in our 2018 Form 10-K. See "Item 1A. Risk Factors" in our 2018 Form 10-K for a discussion of the risks associated with management's judgments and estimates in applying our accounting policies and methods.

RECENT ACCOUNTING CHANGES AND OTHER DEVELOPMENTS

See "Note 1—Summary of Significant Accounting Policies" for information on accounting standards adopted during the current quarter, as well as recently issued accounting standards not yet required to be adopted and the expected impact of the adoption 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 consolidated results of operations, financial condition or liquidity, we also 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 condensed consolidated results of operations between the three months ended November 30, 2018 and 2017 and the six months ended November 30, 2018 and 2017. Following this section, we provide a comparative analysis of our condensed consolidated balance sheets as of November 30, 2018 and May 31, 2018. 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 includes 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 proportionately funding large aggregated amounts of loans.

Table 2 presents average balances for the three and six months ended November 30, 2018 and 2017, 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 2 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 2: Average Balances, Interest Income/Interest Expense and Average Yield/Cost

(Dollars in thousands)	Three Months Ended November 30,					
	2018			2017		
	Average Balance	Interest Income/Expense	Average Yield/Cost	Average Balance	Interest Income/Expense	Average Yield/Cost
Assets:						
Long-term fixed-rate loans ⁽¹⁾	\$22,688,250	\$ 253,340	4.48 %	\$22,458,429	\$ 248,926	4.45 %
Long-term variable-rate loans	1,096,965	10,066	3.68	886,257	6,097	2.76
Line of credit loans	1,351,917	11,752	3.49	1,330,776	8,588	2.59
TDR loans ⁽²⁾	12,184	211	6.95	12,929	222	6.89
Other income, net ⁽³⁾	—	(251)	—	—	(306)	—
Total loans	25,149,316	275,118	4.39	24,688,391	263,527	4.28
Cash, time deposits and investment securities	833,165	6,135	2.95	528,158	2,296	1.74
Total interest-earning assets	\$25,982,481	\$ 281,253	4.34 %	\$25,216,549	\$ 265,823	4.23 %
Other assets, less allowance for loan losses	1,090,619			526,627		
Total assets	\$27,073,100			\$25,743,176		
Liabilities:						
Short-term borrowings	\$3,816,429	\$ 22,619	2.38 %	\$2,998,298	\$ 10,116	1.35 %
Medium-term notes	3,910,610	33,816	3.47	3,375,389	27,544	3.27
Collateral trust bonds	7,265,598	68,934	3.81	7,637,919	85,321	4.48
Guaranteed Underwriter Program notes payable	4,835,203	35,014	2.90	5,066,574	35,688	2.83
Farmer Mac notes payable	2,556,991	19,697	3.09	2,496,587	11,947	1.92
Other notes payable	29,923	322	4.32	35,295	391	4.44
Subordinated deferrable debt	742,456	9,417	5.09	742,319	9,417	5.09
Subordinated certificates	1,377,089	14,347	4.18	1,415,352	14,746	4.18
Total interest-bearing liabilities	\$24,534,299	\$ 204,166	3.34 %	\$23,767,733	\$ 195,170	3.29 %
Other liabilities	976,113			842,246		
Total liabilities	25,510,412			24,609,979		
Total equity	1,562,688			1,133,197		
Total liabilities and equity	\$27,073,100			\$25,743,176		
Net interest spread ⁽⁴⁾			1.00 %			0.94 %
Impact of non-interest bearing funding ⁽⁵⁾			0.19			0.18
Net interest income/net interest yield ⁽⁶⁾		\$ 77,087	1.19 %		\$ 70,653	1.12 %
Adjusted net interest income/adjusted net interest yield:						
Interest income		\$ 281,253	4.34 %		\$ 265,823	4.23 %
Interest expense		204,166	3.34		195,170	3.29
Add: Net accrued periodic derivative cash settlements ⁽⁷⁾		11,805	0.43		19,635	0.72
Adjusted interest expense/adjusted average cost ⁽⁸⁾		\$ 215,971	3.53 %		\$ 214,805	3.63 %

Adjusted net interest spread ⁽⁴⁾		0.81	%		0.60	%
Impact of non-interest bearing funding ⁽⁵⁾		0.20			0.21	
Adjusted net interest income/adjusted net interest yield ⁽⁹⁾	\$ 65,282	1.01	%	\$ 51,018	0.81	%

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(Dollars in thousands)	Six Months Ended November 30,						
	2018			2017			
	Average Balance	Interest Income/Expense	Average Yield/Cost	Average Balance	Interest Income/Expense	Average Yield/Cost	
Assets:							
Long-term fixed-rate loans ⁽¹⁾	\$22,691,903	\$ 505,141	4.44 %	\$22,414,622	\$ 498,290	4.43 %	
Long-term variable-rate loans	1,084,188	19,447	3.58	864,494	11,960	2.76	
Line of credit loans	1,387,579	23,385	3.36	1,342,124	17,295	2.57	
TDR loans ⁽²⁾	12,369	429	6.92	13,026	448	6.86	
Other income, net ⁽³⁾	—	(576)	—	—	(538)	—	
Total loans	25,176,039	547,826	4.34	24,634,266	527,455	4.27	
Cash, time deposits and investment securities	821,222	11,918	2.89	445,452	4,283	1.92	
Total interest-earning assets	\$25,997,261	\$ 559,744	4.29 %	\$25,079,718	\$ 531,738	4.23 %	
Other assets, less allowance for loan losses	907,444			543,490			
Total assets	\$26,904,705			\$25,623,208			
Liabilities:							
Short-term borrowings	\$3,667,402	\$ 42,038	2.29 %	\$3,111,502	\$ 20,655	1.32 %	
Medium-term notes	3,833,484	66,226	3.45	3,192,063	52,660	3.29	
Collateral trust bonds	7,370,550	146,639	3.97	7,636,669	170,598	4.46	
Guaranteed Underwriter Program notes payable	4,841,855	70,348	2.90	5,030,955	71,290	2.83	
Farmer Mac notes payable	2,674,397	40,808	3.04	2,502,096	23,437	1.87	
Other notes payable	29,900	644	4.30	35,269	781	4.42	
Subordinated deferrable debt	742,439	18,834	5.06	742,302	18,833	5.06	
Subordinated certificates	1,377,524	28,860	4.18	1,416,619	29,647	4.17	
Total interest-bearing liabilities	\$24,537,551	\$ 414,397	3.37 %	\$23,667,475	\$ 387,901	3.27 %	
Other liabilities	836,273			847,751			
Total liabilities	25,373,824			24,515,226			
Total equity	1,530,881			1,107,982			
Total liabilities and equity	\$26,904,705			\$25,623,208			
Net interest spread ⁽⁴⁾			0.92 %			0.96 %	
Impact of non-interest bearing funding ⁽⁵⁾			0.20			0.18	
Net interest income/net interest yield ⁽⁶⁾		\$ 145,347	1.12 %		\$ 143,837	1.14 %	
Adjusted net interest income/adjusted net interest yield:							
Interest income		\$ 559,744	4.29 %		\$ 531,738	4.23 %	
Interest expense		414,397	3.37		387,901	3.27	
Add: Net accrued periodic derivative cash settlements ⁽⁷⁾		24,634	0.45		39,857	0.74	
Adjusted interest expense/adjusted average cost ⁽⁸⁾		\$ 439,031	3.57 %		\$ 427,758	3.60 %	
Adjusted net interest spread ⁽⁴⁾			0.72 %			0.63 %	

Impact of non-interest bearing funding ⁽⁵⁾		0.21			0.20
Adjusted net interest income/adjusted net interest yield ⁽⁹⁾	\$ 120,713	0.93	%	\$ 103,980	0.83 %

⁽¹⁾Interest income on long-term, fixed-rate loans includes loan conversion fees, which are generally deferred and recognized as 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 total average interest-earning assets and the average cost of total average interest-bearing liabilities. Adjusted net interest spread represents the difference between the average yield on total average interest-earning assets and the adjusted average cost of total average interest-bearing liabilities.

(5) Includes other liabilities and equity.

(6) Net interest yield is calculated based on annualized net interest income for the period divided by total average interest-earning assets for the period.

(7) Represents the impact of net accrued periodic interest rate swap settlements during the period. This amount is added to interest expense to derive non-GAAP adjusted interest expense. The average (benefit)/cost associated with derivatives is calculated based on annualized net accrued periodic interest rate swap settlements during the period divided by the average outstanding notional amount of derivatives during the period. The average outstanding notional amount of interest rate swaps was \$11,123 million and \$10,902 million for the three months ended November 30, 2018 and 2017, respectively. The average outstanding notional amount of interest rate swaps was \$11,039 million and \$10,791 million for the six months ended November 30, 2018 and 2017, respectively.

(8) Adjusted interest expense represents interest expense plus net accrued periodic interest rate swap cash settlements during the period. Net accrued periodic derivative cash settlements are reported on our consolidated statements of income as a component of derivative gains (losses). Adjusted average cost is calculated based on annualized adjusted interest expense for the period divided by total average interest-bearing liabilities during the period.

(9) Adjusted net interest yield is calculated based on annualized adjusted net interest income for the period divided by total average interest-earning assets for the period.

Table 3 displays the change in 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. Changes that are not solely due to either volume or rate are allocated to these categories on a pro-rata basis based on the absolute value of the change due to average volume and average rate.

Table 3: Rate/Volume Analysis of Changes in Interest Income/Interest Expense

(Dollars in thousands)	Three Months Ended November 30, 2018 versus 2017			Six Months Ended November 30, 2018 versus 2017		
	Total	Variance due to: ⁽¹⁾		Total	Variance due to: ⁽¹⁾	
	Variance	Volume	Rate	Variance	Volume	Rate
Interest income:						
Long-term fixed-rate loans	\$4,414	\$2,547	\$1,867	\$6,851	\$6,164	\$687
Long-term variable-rate loans	3,969	1,450	2,519	7,487	3,039	4,448
Line of credit loans	3,164	136	3,028	6,090	586	5,504
Restructured loans	(11)	(13)	2	(19)	(23)	4
Other income, net	55	—	55	(38)	—	(38)
Total loans	11,591	4,120	7,471	20,371	9,766	10,605
Cash, time deposits and investment securities	3,839	1,326	2,513	7,635	3,613	4,022
Interest income	15,430	5,446	9,984	28,006	13,379	14,627
Interest expense:						
Short-term borrowings	12,503	2,760	9,743	21,383	3,690	17,693
Medium-term notes	6,272	4,368	1,904	13,566	10,582	2,984
Collateral trust bonds	(16,387)	(4,159)	(12,228)	(23,959)	(5,945)	(18,014)
Guaranteed Underwriter Program notes payable	(674)	(1,630)	956	(942)	(2,680)	1,738
Farmer Mac notes payable	7,750	289	7,461	17,371	1,614	15,757
Other notes payable	(69)	(60)	(9)	(137)	(119)	(18)
Subordinated deferrable debt	—	2	(2)	1	3	(2)
Subordinated certificates	(399)	(399)	—	(787)	(818)	31
Interest expense	8,996	1,171	7,825	26,496	6,327	20,169
Net interest income	\$6,434	\$4,275	\$2,159	\$1,510	\$7,052	\$(5,542)
Adjusted net interest income:						
Interest income	\$15,430	\$5,446	\$9,984	\$28,006	\$13,379	\$14,627
Interest expense	8,996	1,171	7,825	26,496	6,327	20,169
Net accrued periodic derivative cash settlements ⁽²⁾	(7,830)	399	(8,229)	(15,223)	913	(16,136)
Adjusted interest expense ⁽³⁾	1,166	1,570	(404)	11,273	7,240	4,033
Adjusted net interest income	\$14,264	\$3,876	\$10,388	\$16,733	\$6,139	\$10,594

⁽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.

Reported Net Interest Income

Reported net interest income of \$77 million for the current quarter reflected an increase of \$6 million, or 9%, from the comparable prior-year quarter, driven by an increase in net interest yield of 6% (7 basis points) to 1.19% and an increase in average interest-earning assets of 3%.

Net Interest Yield: The increase of 7 basis points in the net interest yield for the current quarter reflected the combined impact of an increase in the average yield on interest-earning assets of 11 basis points to 4.34%, which was partially offset by an increase in the average cost of funds of 5 basis points to 3.34% due to a higher average cost for our short-term and variable-rate borrowings as a result of the rise in short-term interest rates. The increase in the average cost of funds was somewhat mitigated by the benefit from the early redemption in July 2018 of \$300 million aggregate principal amount of our \$1 billion 10.375% collateral trust bonds due November 1, 2018, and the repayment of the remaining \$700 million of these bonds at maturity.

Average Interest-Earning Assets: The increase in average interest-earning assets of 3% for the current quarter was attributable to growth in average total loans of \$461 million, or 2%, and an increase in our investment securities portfolio.

Reported net interest income of \$145 million for the six months ended November 30, 2018 reflected an increase of \$2 million, or 1%, from the comparable prior-year period, driven by an increase in average interest-earning assets of 4%, which was partially offset by a decrease in net interest yield of 2% (2 basis points) to 1.12%.

Net Interest Yield: The decrease of 2 basis points in the net interest yield was attributable to a 10 basis points increase in the average cost of funds to 3.37%, which was partially offset by a 6 basis point increase in the average yield on interest-earning assets to 4.29%, largely due to interest rate increases on variable rate loans. The increase in the average yield on interest-earning assets and the increase in the average cost of funds were both largely due to an increase in rates on short-term and variable-rate loans and borrowings as a result of the continued rise in short-term interest rates. The 3-month London Interbank Offered Rate ("LIBOR") was 2.74% as of November 30, 2018, an increase of 125 basis points from November 30, 2017, while the federal funds target rate was 2.25% as of November 30, 2018, up 100 basis points from November 30, 2017. The benefit from the early redemption and repayment of our \$1 billion 10.375% collateral trust bonds due November 1, 2018, partially offset the increase in the average cost of short-term and variable-rate borrowings.

Average Interest-Earning Assets: The increase in average interest-earning assets of 4% for the six months ended November 30, 2018 was attributable to growth in average total loans of \$542 million, or 2%, and an expansion of our investment securities portfolio.

Adjusted Net Interest Income

Adjusted net interest income of \$65 million for the current quarter increased by \$14 million, or 28%, from the comparable prior-year quarter, driven by an increase in the adjusted net interest yield of 25% (20 basis points) to 1.01% and the increase in average interest-earning assets of 3%. The increase in the adjusted net interest yield reflected the combined impact of an increase in the average yield on interest-earning assets of 11 basis points to 4.34% and a decline in our adjusted average cost of funds of 10 basis points to 3.53%.

Adjusted net interest income of \$121 million for the six months ended November 30, 2018 increased by \$17 million, or 16%, from the comparable prior-year period, driven by an increase in the adjusted net interest yield of 12% (10 basis points) to 0.93% and the increase in average interest-earning assets of 4%. The increase in the adjusted net interest yield reflected the combined impact of an increase in the average yield on interest earning assets of 6 basis points to 4.29% and a decline in our adjusted average cost of funds of 3 basis points to 3.57%.

The decrease in the average cost of funds in the current quarter and for the six months ended November 30, 2018 was primarily due to a reduction in adjusted interest expense from the early redemption and maturity of the \$1 billion aggregate principal amount of the 10.375% collateral trust bonds and a reduction in net periodic derivative cash settlement amounts. The reduction in net periodic derivative cash settlements was attributable to the rise in short-term interest rates, which resulted in an increase in the periodic floating interest rate amounts due to us on our pay-fixed

swaps, as the floating interest rate payment amounts are typically determined based on the 3-month LIBOR.

We recorded net periodic derivative cash settlement expense of \$12 million and \$20 million for the three months ended November 30, 2018 and 2017, respectively, and \$25 million and \$40 million for the six months ended November 30, 2018 and 2017, respectively. We include net accrued periodic derivative cash settlements during the period in the calculation of our adjusted average cost of funds, which, as a result, also impacts the calculation of adjusted net interest income and

adjusted net interest yield. See “Non-GAAP Financial Measures” for additional information on our adjusted measures, including a reconciliation of these measures to the most comparable GAAP 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 benefit for loan losses of \$2 million for both the three and six months ended November 30, 2018. In comparison, we recorded a benefit for loan losses of less than \$1 million for the same prior-year periods. The credit quality and performance statistics of our loan portfolio continued to remain strong. We had no payment defaults or charge-offs during the six months ended November 30, 2018, and no delinquent loans or nonperforming loans in our loan portfolio as of November 30, 2018 or May 31, 2018.

We provide additional information on our allowance for loan losses under “Credit Risk—Allowance for Loan Losses” and “Note 5—Allowance for Loan Losses” of this report. For additional information on our allowance methodology, see “MD&A—Critical Accounting Policies and Estimates” and “Note 1—Summary of Significant Accounting Policies” in our 2018 Form 10-K.

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 4 presents the components of non-interest income recorded in results of operations for the three and six months ended November 30, 2018 and 2017.

Table 4: Non-Interest Income

	Three Months Ended November 30,		Six Months Ended November 30,	
(Dollars in thousands)	2018	2017	2018	2017
Non-interest income:				
Fee and other income	\$4,321	\$5,542	\$7,506	\$9,487
Derivative gains	63,343	125,593	70,526	79,395
Results of operations of foreclosed assets	—	(10)	—	(34)
Total non-interest income	\$67,664	\$131,125	\$78,032	\$88,848

The significant variances in non-interest income between periods were primarily attributable to changes in net derivative gains recognized in our consolidated statements of income.

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. In addition, we may on occasion use treasury locks to manage the interest rate risk associated with debt that is scheduled to reprice in the future. 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 swap curve and the composition of our

derivative portfolio. We generally do not designate our interest rate swaps, which currently account for the substantial majority of our derivatives, for hedge accounting. Accordingly, changes in the fair value of interest rate swaps are reported in our consolidated statements of income under derivative gains (losses). However, we typically designate treasury locks as cash flow hedges. We did not have any derivatives designated as accounting hedges as of November 30, 2018. During the current quarter, we terminated a treasury lock that was previously designated as a cash flow hedge.

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 variable rate for the substantial majority of the floating rate payments under our swap agreements is 3-month LIBOR. Table 5 displays the average notional amount outstanding, by swap agreement type, and the weighted-average interest rate paid and received for interest rate swap settlements during the three and six months ended November 30, 2018 and 2017. As indicated in Table 5, our interest rate swap portfolio currently consists of a higher proportion of pay-fixed swaps than receive-fixed swaps, with pay-fixed swaps representing approximately 67% and 65% of the outstanding notional amount of our derivative portfolio as of both November 30, 2018 and May 31, 2018, respectively. The composition of our interest rate swap portfolio, however, may change as a result of changes in market conditions and actions taken to manage our exposure to interest rate risk.

Table 5: Derivative Average Notional Amounts and Average Interest Rates

(Dollars in thousands)	Three Months Ended November 30, 2018					2017				
	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	\$7,424,114	2.71	%	2.35	%	\$7,052,629	2.84	%	1.35	%
Receive-fixed swaps	3,699,000	3.05		2.52		3,849,001	1.91		2.63	
Total	\$11,123,114	2.82	%	2.41	%	\$10,901,630	2.51	%	1.80	%

(Dollars in thousands)	Six Months Ended November 30, 2018					2017				
	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	\$7,308,859	2.70	%	2.30	%	\$7,003,898	2.84	%	1.31	%
Receive-fixed swaps	3,729,738	3.01		2.52		3,787,525	1.87		2.63	
Total	\$11,038,597	2.80	%	2.37	%	\$10,791,423	2.50	%	1.77	%

The average remaining maturity of our pay-fixed and receive-fixed swaps was 19 years and four years, respectively, as of both November 30, 2018 and 2017.

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 curve, different changes in the swap curve—parallel, flattening or steepening—will result in differences in the fair value of our derivatives. The chart below provides comparative swap curves as of the end of November 30, 2018, May 31, 2018, November 30, 2017 and May 31, 2017.

Benchmark rates obtained from Bloomberg.

Table 6 presents the components of net derivative gains (losses) recorded in results of operations for the three and six months ended November 30, 2018 and 2017. 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 6: Derivative Gains (Losses)

	Three Months Ended		Six Months Ended	
	November 30,		November 30,	
(Dollars in thousands)	2018	2017	2018	2017
Derivative gains (losses) attributable to:				
Derivative cash settlements	\$(11,805)	\$(19,635)	\$(24,634)	\$(39,857)
Derivative forward value gains	75,148	145,228	95,160	119,252
Derivative gains	\$63,343	\$125,593	\$70,526	\$79,395

The net derivative gains of \$63 million and \$71 million for the three and six months ended November 30, 2018, were attributable to an increase in the fair value of our pay-fixed swaps resulting from an increase in interest rates across the swap yield curve, as depicted by the November 30, 2018 swap curve presented in the above chart.

The net derivative gains of \$126 million and \$79 million for the three and six months ended November 30, 2017, respectively, were also attributable to an increase in the fair value of our pay-fixed swaps as interest rates increased across the yield curve.

As discussed above, pay-fixed swaps, which represent a higher proportion of our derivative portfolio, typically increase in fair value when interest rates rise. Although interest rates rose in both the current year and prior year periods, the rise in medium- and longer-term rates was not as pronounced during the current quarter and year-to-date period. As a result, the derivative gains were lower relative to the same prior-year periods. For example, the 5-year swap rate increased by 11 basis points and 17 basis points during the three and six months ended November 30, 2018, respectively, while the 10-year swap rate increased by 13 basis points and 17 basis points, respectively. In comparison, the 5-year swap rate increased by 44 basis points and 37 basis points during the three and six months ended November 30, 2017, respectively, while the 10-year swap rate increased by 34 basis points and 26 basis points, respectively.

See “Note 9—Derivative Instruments and Hedging Activities” for additional information on our derivative instruments.

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 7 presents the components of non-interest expense recorded in results of operations for the three and six months ended November 30, 2018 and 2017.

Table 7: Non-Interest Expense

(Dollars in thousands)	Three Months Ended		Six Months Ended	
	November 30, 2018	November 30, 2017	November 30, 2018	November 30, 2017
Non-interest expense:				
Salaries and employee benefits	\$(12,392)	\$(12,009)	\$(25,074)	\$(23,832)
Other general and administrative expenses	(11,478)	(9,905)	(22,001)	(19,718)
Losses on early extinguishment of debt	—	—	(7,100)	—
Other non-interest expense	(2,700)	(618)	(3,094)	(1,140)
Total non-interest expense	\$(26,570)	\$(22,532)	\$(57,269)	\$(44,690)

Non-interest expense of \$27 million for the current quarter increased by \$4 million, or 18%, from the comparable prior-year quarter, primarily due to increases in general and administrative expenses and other non-interest expense.

Non-interest expense of \$57 million for the six months ended November 30, 2018 increased by \$13 million, or 28%, from the comparable prior-year quarter. The increase was largely due to the loss on early extinguishment of debt of \$7 million, attributable to the premium paid for the early redemption of \$300 million of the \$1 billion collateral trust bonds, with a coupon rate of 10.375%, that matured on November 1, 2018.

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 changes in the fair value of NCSC’s derivative instruments recognized in NCSC's earnings.

We recorded net income attributable to noncontrolling interests of less than \$1 million for both the three and six months ended November 30, 2018. We recorded net income attributable to noncontrolling interests of \$1 million for both the three and six months ended November 30, 2017.

CONSOLIDATED BALANCE SHEET ANALYSIS

Total assets of \$26,830 million as of November 30, 2018 increased by \$139 million from May 31, 2018. Total liabilities of \$25,203 million as of November 30, 2018 increased by \$18 million from May 31, 2018. Total equity increased by \$121 million to \$1,627 million as of November 30, 2018, attributable to our reported net income of \$168 million during the six months ended November 30, 2018, which was partially offset by patronage capital retirement of \$48 million in August 2018.

Following is a discussion of changes in the major components of our assets and liabilities during the six months ended November 30, 2018. 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. The substantial majority of loans in our portfolio represent advances under secured long-term facilities with terms up to 35 years. Borrowers have the option of selecting a fixed or variable interest rate for each advance for periods ranging from one year to the final maturity of the facility. Line of credit loans are typically revolving facilities and are generally unsecured.

Loans Outstanding

Table 8 summarizes loans to members, by loan type and by member class, as of November 30, 2018 and May 31, 2018. As indicated in Table 8, long-term fixed-rate loans accounted for 90% of loans to members as of both November 30, 2018 and May 31, 2018.

Table 8: Loans Outstanding by Type and Member Class

(Dollars in thousands)	November 30, 2018		May 31, 2018		Change
	Amount	% of Total	Amount	% of Total	
Loans by type:					
Long-term loans:					
Fixed-rate	\$22,713,588	90 %	\$22,696,185	90 %	\$17,403
Variable-rate	1,077,971	4	1,039,491	4	38,480
Total long-term loans	23,791,559	94	23,735,676	94	55,883
Lines of credit	1,491,394	6	1,431,818	6	59,576
Total loans outstanding	25,282,953	100	25,167,494	100	115,459
Deferred loan origination costs	11,222	—	11,114	—	108
Loans to members	\$25,294,175	100 %	\$25,178,608	100 %	\$115,567

Loans by member class:

CFC:					
Distribution	\$19,812,973	79 %	\$19,551,511	78 %	\$261,462
Power supply	4,264,713	17	4,397,353	18	(132,640)
Statewide and associate	82,549	—	69,055	—	13,494
CFC total	24,160,235	96	24,017,919	96	142,316
NCSC	767,225	3	786,457	3	(19,232)
RTFC	355,493	1	363,118	1	(7,625)
Total loans outstanding	25,282,953	100	25,167,494	100	115,459

Deferred loan origination costs	11,222	—	11,114	—	108
Loans to members	\$25,294,175	100 %	\$25,178,608	100 %	\$115,567

Loans to members totaled \$25,294 million as of November 30, 2018, an increase of \$116 million from May 31, 2018. CFC distribution loans increased by \$261 million, which was partially offset by decreases in CFC power supply loans, NCSC loans and RTFC loans of \$133 million, \$19 million and \$8 million, respectively.

Long-term loan advances totaled \$814 million during the six months ended November 30, 2018, with approximately 83% of those advances for capital expenditures by members and 14% for the refinancing of loans made by other lenders. In comparison, long-term loan advances totaled \$1,127 million during the prior year six months ended November 30, 2017, with approximately 58% of those advances for capital expenditures and 31% for refinancing of loans made by other lenders. The decrease in long-term loan advances from the same prior-year period reflects weaker demand from borrowers, due in part to more limited refinancings by our members of loans made by other lenders. In addition, although growth in U.S. electricity consumption has been relatively stagnant over the last several years, many of our members had an overall more profitable year due to an increase in electricity consumption as a result of weather conditions, which reduced their need for long-term borrowings.

We provide additional information on our loan product types in “Item 1. Business—Loan Programs” and “Note 4—Loans” in our 2018 Form 10-K. See “Debt—Collateral Pledged” 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 9 presents a comparison between the historical retention rate of CFC’s long-term fixed-rate loans that repriced, in accordance with our standard loan provisions, during the six months ended November 30, 2018 and loans that repriced during fiscal year 2018, and provides information on the percentage of loans that repriced to 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. The average annual retention rate of CFC’s repriced loans has been 98% over the last three fiscal years.

Table 9: Historical Retention Rate and Repricing Selection⁽¹⁾

	Six Months Ended November 30, 2018		Fiscal Year Ended May 31, 2018	
(Dollars in thousands)	Amount	% of Total	Amount	% of Total
Loans retained:				
Long-term fixed rate selected	\$296,061	67 %	\$741,792	82 %
Long-term variable rate selected	87,508	20	157,539	17
Total loans retained by CFC	383,569	87	899,331	99
Loans repaid ⁽²⁾	55,427	13	4,637	1
Total	\$438,996	100 %	\$903,968	100 %

⁽¹⁾Does not include NCSC and RTFC loans.

⁽²⁾Includes loans totaling \$1 million as of May 31, 2018 that were converted to new loans at the repricing date and transferred to a third party as part of our direct loan sale program. See “Note 4—Loans” for information on our sale of loans.

Debt

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

manage funding concentrations and reduce our liquidity or debt rollover 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 Outstanding

Table 10 displays the composition, by product type, of our outstanding debt as of November 30, 2018 and May 31, 2018. Table 10 also displays the composition of our debt based on several additional selected attributes.

Table 10: Total Debt Outstanding

(Dollars in thousands)	November 30, 2018	May 31, 2018	Change
Debt product type:			
Commercial paper:			
Members, at par	\$1,218,730	\$1,202,105	\$16,625
Dealer, net of discounts	1,058,949	1,064,266	(5,317)
Total commercial paper	2,277,679	2,266,371	11,308
Select notes to members	1,031,022	780,472	250,550
Daily liquidity fund notes to members	566,935	400,635	166,300
Medium-term notes:			
Members, at par	622,066	643,821	(21,755)
Dealer, net of discounts	3,274,932	3,002,979	271,953
Total medium-term notes	3,896,998	3,646,800	250,198
Collateral trust bonds	7,086,149	7,639,093	(552,944)
Guaranteed Underwriter Program notes payable	4,925,542	4,856,143	69,399
Farmer Mac notes payable	2,763,482	2,891,496	(128,014)
Other notes payable	29,955	29,860	95
Subordinated deferrable debt	742,480	742,410	70
Members' subordinated certificates:			
Membership subordinated certificates	630,468	630,448	20
Loan and guarantee subordinated certificates	525,051	528,386	(3,335)
Member capital securities	221,170	221,148	22
Total members' subordinated certificates	1,376,689	1,379,982	(3,293)
Total debt outstanding	\$24,696,931	\$24,633,262	\$63,669
Security type:			
Unsecured debt	40	% 37	%
Secured debt	60	63	
Total	100	% 100	%
Funding source:			
Members	19	% 18	%
Private placement:			
Guaranteed Underwriter Program notes payable	20	20	
Farmer Mac notes payable	11	12	
Total private placement	31	32	
Capital markets	50	50	
Total	100	% 100	%
Interest rate type:			
Fixed-rate debt	73	% 74	%
Variable-rate debt	27	26	
Total	100	% 100	%
Interest rate type, including the impact of swaps:			
Fixed-rate debt ⁽¹⁾	88	% 87	%
Variable-rate debt ⁽²⁾	12	13	
Total	100	% 100	%

Maturity classification:⁽³⁾

Short-term borrowings	17	% 15	%
Long-term and subordinated debt ⁽⁴⁾	83	85	
Total	100	% 100	%

Total outstanding member debt	\$4,815,442	\$4,407,015	\$408,427
Percentage of total debt outstanding	19	%	18
			%

⁽¹⁾ Represents outstanding debt attributable to members for each debt product type as a percentage of the total outstanding debt for each debt product type.

Member investments accounted for 19% and 18% of total debt outstanding as of November 30, 2018 and May 31, 2018, respectively. Over the last three fiscal years, outstanding member investments have averaged \$4,402 million on a quarterly basis.

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 \$4,101 million and accounted for 17% of total debt outstanding as of November 30, 2018, compared with \$3,796 million, or 15%, of total debt outstanding as of May 31, 2018. See “Liquidity Risk” below and for “Note 6—Short-Term Borrowings” for information on 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 \$20,596 million and accounted for 83% of total debt outstanding as of November 30, 2018, compared with \$20,837 million, or 85%, of total debt outstanding as of May 31, 2018. We provide additional information on our long-term debt below under “Liquidity Risk” and in “Note 7—Long-Term Debt” and “Note 8—Subordinated Deferrable Debt.”

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 face amount of outstanding 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 12 displays the collateral coverage ratios as of November 30, 2018 and May 31, 2018 for the debt agreements noted above that require us to pledge collateral.

Table 12: Collateral Pledged

Debt Agreement	Requirement/Limit				Actual ⁽¹⁾	
	Debt Indenture Minimum	Requirement	Limit	Line of Credit Agreements Maximum	November 30, 2018	May 31, 2018
Collateral trust bonds 1994 indenture	100	%	150	%	122	% 111
Collateral trust bonds 2007 indenture	100		150		115	114

Guaranteed Underwriter Program notes payable	100	150	114	119
Farmer Mac notes payable	100	150	115	115
Clean Renewable Energy Bonds Series 2009A	100	150	119	109

⁽¹⁾ Calculated based on the amount of collateral pledged divided by the face amount of outstanding secured debt.

Of our total debt outstanding of \$24,697 million as of November 30, 2018, \$14,787 million, or 60%, was secured by pledged loans totaling \$17,274 million. In comparison, of our total debt outstanding of \$24,633 million as of May 31, 2018,

\$15,398 million, or 63%, was secured by pledged loans totaling \$18,145 million. Total debt outstanding on our condensed consolidated balance sheet is presented net of unamortized discounts and issuance costs. However, our collateral pledging requirements are based on the face amount of secured outstanding debt, which does not take into consideration the impact of net unamortized discounts and issuance costs.

Table 13 displays the unpaid principal balance of loans pledged for secured debt, the excess collateral pledged and unencumbered loans as of November 30, 2018 and May 31, 2018.

Table 13: Unencumbered Loans

(Dollars in thousands)	November 30, 2018	May 31, 2018
Total loans outstanding ⁽¹⁾	\$25,282,953	\$25,167,494
Less: Loans required to be pledged for secured debt ⁽²⁾	(15,063,291)	(15,677,138)
Loans pledged in excess of requirement ⁽²⁾⁽³⁾	(2,211,012)	(2,467,444)
Total pledged loans	(17,274,303)	(18,144,582)
Unencumbered loans	\$8,008,650	\$7,022,912
Unencumbered loans as a percentage of total loans	32	% 28

⁽¹⁾ Represents the unpaid principal amount of loans as of the end of each period presented and excludes unamortized deferred loan origination costs of \$11 million as of both November 30, 2018 and May 31, 2018.

⁽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 13, we had excess loans pledged as collateral totaling \$2,211 million and \$2,467 million as of November 30, 2018 and May 31, 2018, respectively. We typically pledge loans in excess of the required amount for the following reasons: (i) 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; (ii) distribution and power supply borrowers have the option to prepay their loans; and (iii) 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.” Refer to “Note 4—Loans—Pledging of Loans” for additional information related to pledged collateral. Also refer to “Note 5—Short-Term Borrowings,” “Note 6—Long-Term Debt,” “Note 7—Subordinated Deferrable Debt” and “Note 8—Members’ Subordinated Certificates” in our 2018 Form 10-K for a more detailed description of each of our debt product types.

Equity

Table 14 presents the components of total CFC equity, total equity and total members’ equity as of November 30, 2018 and May 31, 2018. As displayed in Table 14, total members’ equity excludes the impact of cumulative unrealized derivative forward value gains (losses) recorded in earnings.

Table 14: Equity

(Dollars in thousands)	November 30, 2018	May 31, 2018	Change
Membership fees and educational fund:			
Membership fees	\$969	\$969	\$—
Educational fund	1,431	1,976	(545)
Total membership fees and educational fund	2,400	2,945	(545)
Patronage capital allocated	763,986	811,493	(47,507)
Members' capital reserve	687,785	687,785	—
Total allocated equity	1,454,171	1,502,223	(48,052)
Unallocated net income (loss):			
Prior year-end cumulative derivative forward value losses ⁽¹⁾	(30,831)	(332,525)	301,694
Current year derivative forward value gains ⁽¹⁾	94,262	301,694	(207,432)
Current period-end cumulative derivative forward value gains (losses) ⁽¹⁾	63,431	(30,831)	94,262
Other unallocated net income (loss)	76,154	(5,603)	81,757
Unallocated net income (loss)	139,585	(36,434)	176,019
CFC retained equity	1,593,756	1,465,789	127,967
Accumulated other comprehensive income	832	8,544	(7,712)
Total CFC equity	1,594,588	1,474,333	120,255
Noncontrolling interests	32,550	31,520	1,030
Total equity	\$1,627,138	\$1,505,853	\$121,285

⁽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 13—Business Segments” for the statements of operations for CFC.

Total equity increased by \$121 million to \$1,627 million as of November 30, 2018. The increase was primarily attributable to our net income of \$168 million for the six months ended November 30, 2018, which was partially offset by patronage capital retirement of \$48 million in August 2018.

In July 2018, the CFC Board of Directors authorized the allocation of fiscal year 2018 adjusted net income as follows: \$95 million to members in the form of patronage capital; \$57 million to the members' capital reserve; and \$1 million to the cooperative educational fund. The amount of patronage capital allocated each year by CFC's Board of Directors is based on 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 2018, the CFC Board of Directors also authorized the retirement of patronage capital totaling \$48 million, which represented 50% of the patronage capital allocation for fiscal year 2018. This amount was returned to members in cash in August 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 adjusted net income, if any. CFC has made annual retirements of allocated net earnings in 39 of the last 40 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” of our 2018 Form 10-K for additional information.

OFF-BALANCE SHEET ARRANGEMENTS

In the ordinary course of business, we engage in financial transactions that are not presented on our condensed consolidated balance sheets, or may be recorded on our condensed 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 15 displays the notional amount of our outstanding guarantee obligations, by guarantee type and by company, as of November 30, 2018 and May 31, 2018.

Table 15: Guarantees Outstanding

(Dollars in thousands)	November 30, 2018	May 31, 2018	Change
Guarantee type:			
Long-term tax-exempt bonds	\$ 313,685	\$ 316,985	\$(3,300)
Letters of credit	312,536	343,970	(31,434)
Other guarantees	145,201	144,206	995
Total	\$ 771,422	\$ 805,161	\$(33,739)
Company:			
CFC	\$ 754,349	\$ 793,156	\$(38,807)
NCSC	15,499	10,431	5,068
RTFC	1,574	1,574	—
Total	\$ 771,422	\$ 805,161	\$(33,739)

Of the total notional amount of our outstanding guarantee obligations of \$771 million and \$805 million as of November 30, 2018 and May 31, 2018, respectively, 60% and 57%, respectively, were secured by a mortgage lien on substantially all of the assets and future revenue of our member cooperatives for which we provide guarantees.

In addition to providing a guarantee on long-term tax-exempt bonds issued by member cooperatives totaling \$314 million as of November 30, 2018, we also were the liquidity provider on \$248 million of those tax-exempt bonds. As liquidity provider, 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. We were not required to perform as liquidity provider pursuant to these obligations during the six months ended November 30, 2018 or the prior fiscal year.

We had outstanding letters of credit for the benefit of our members totaling \$313 million as of November 30, 2018. These letters of credit relate to obligations for which we may be required to advance funds based on various trigger events specified in the letter of credit agreements. If we are required to advance funds, the member is obligated to

repay the advance amount and accrued interest to us. In addition to these letters of credit, we had master letter of credit facilities in place as of November 30, 2018, under which we may be required to issue letters of credit to third parties for the benefit of our members up to an additional \$58 million as of November 30, 2018. All of our master letter of credit facilities as of November 30, 2018 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.

Table 16 presents the maturities for each of the next five fiscal years and thereafter of the notional amount of our outstanding guarantee obligations as of November 30, 2018.

Table 16: Maturities of Guarantee Obligations

(Dollars in thousands)	Outstanding	Maturities of Guarantee Obligations					
	Amount	2019	2020	2021	2022	2023	Thereafter
Guarantees	\$ 771,422	\$ 150,074	\$ 144,532	\$ 121,756	\$ 27,687	\$ 160,594	\$ 166,779

We recorded a guarantee liability of \$10 million and \$11 million as of November 30, 2018 and May 31, 2018, respectively, for our guarantee and liquidity obligations associated with our members' debt. We provide additional information about our guarantee obligations in "Note 11—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, while our long-term loan commitments are subject to material adverse change clauses.

Table 17 displays the amount of unadvanced loan commitments, which consist of line of credit and long-term loan commitments, as of November 30, 2018 and May 31, 2018.

Table 17: Unadvanced Loan Commitments

(Dollars in thousands)	November 30, 2018		May 31, 2018		Change
	Amount	% of Total	Amount	% of Total	
Line of credit commitments:					
Conditional ⁽¹⁾	\$4,800,550	37 %	\$4,835,434	38 %	\$(34,884)
Unconditional ⁽²⁾	3,053,902	23	2,857,350	23	196,552
Total line of credit unadvanced commitments	7,854,452	60	7,692,784	61	161,668
Total long-term loan unadvanced commitments ⁽¹⁾	5,289,612	40	4,952,834	39	336,778
Total unadvanced loan commitments	\$13,144,064	100 %	\$12,645,618	100 %	\$498,446

⁽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.

Table 18 presents the amount of unadvanced loan commitments, by loan type, as of November 30, 2018 and the maturities of the commitment amounts for each of the next five fiscal years and thereafter.

Table 18: Notional Maturities of Unadvanced Loan Commitments

(Dollars in thousands)	Available	Notional Maturities of Unadvanced Loan Commitments					
	Balance	2019	2020	2021	2022	2023	Thereafter
Line of credit loans	\$7,854,452	\$302,927	\$3,960,406	\$908,973	\$755,133	\$1,339,586	\$587,427
Long-term loans	5,289,612	417,526	545,467	688,422	1,636,893	1,193,023	808,281
Total	\$13,144,064	\$720,453	\$4,505,873	\$1,597,395	\$2,392,026	\$2,532,609	\$1,395,708

Unadvanced line of credit commitments accounted for 60% of total unadvanced loan commitments as of November 30, 2018, while unadvanced long-term loan commitments accounted for 40% of total unadvanced loan commitments. Unadvanced line of credit commitments are typically revolving facilities for periods not to exceed five years and generally serve as supplemental back-up liquidity to our borrowers. 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 we are obligated to fund the facility where a material adverse change exists. Our unadvanced long-term loan commitments have a five-year draw period under which a borrower may advance funds prior to the expiration of the commitment. We expect that the majority of the long-term unadvanced loan commitments of \$5,290 million will be advanced prior to the expiration of the commitment.

Because we historically have experienced a very low utilization rate on line of credit loan facilities, which account for the majority of our total unadvanced loan commitments, we believe the unadvanced loan commitment total of \$13,144 million as of November 30, 2018 is not necessarily representative of our future funding requirements.

Unadvanced Loan Commitments—Conditional

The 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 \$10,090 million and \$9,789 million as of November 30, 2018 and May 31, 2018, respectively, and accounted for 77% of the combined total of unadvanced line of credit and long-term loan commitments as of both November 30, 2018 and May 31, 2018. 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 \$3,054 million and \$2,857 million as of November 30, 2018 and May 31, 2018, 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.

Syndicated loan facilities, where the pricing is set at a spread over a market index rate as agreed upon by all of the participating financial institutions based on market conditions at the time of syndication, accounted for 90% of unconditional line of credit commitments as of November 30, 2018. The remaining 10% represented unconditional committed line of credit loans, which under any new advance would be made at rates determined by us.

Table 19 presents the maturities for each of the next five fiscal years and thereafter of the notional amount of unconditional committed lines of credit not subject to a material adverse change clause as of November 30, 2018.

Table 19: Maturities of Notional Amount of Unconditional Committed Lines of Credit

	Available	Notional Maturities of Unconditional Committed Lines of Credit					
(Dollars in thousands)	Balance	2019	2020	2021	2022	2023	Thereafter
Committed lines of credit	\$3,053,902	\$110,000	\$347,582	\$479,348	\$455,400	\$1,228,176	\$433,396

See “MD&A—Off-Balance Sheet Arrangements” in our 2018 Form 10-K for additional information on our off-balance sheet arrangements.

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 to 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 rated 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. We provide information on our risk management framework in our 2018 Form 10-K under "Item 7. MD&A—Risk Management—Risk Management Framework."

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 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 provide a discussion of our credit risk management processes and activities in our 2018 Form 10-K under "Item 7. MD&A—Credit Risk—Credit Risk Management."

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, distribution and power supply borrowers also are required to set rates charged to customers to achieve certain specified financial ratios.

Table 20 presents, by loan type and by company, the amount and percentage of secured and unsecured loans in our loan portfolio as of November 30, 2018 and May 31, 2018. Of our total loans outstanding, 93% were secured and 7% were unsecured as of both November 30, 2018 and May 31, 2018.

Table 20: Loan Portfolio Security Profile

(Dollars in thousands)	November 30, 2018				
	Secured	% of Total	Unsecured	% of Total	Total
Loan type:					
Long-term loans:					
Long-term fixed-rate loans	\$22,274,200	98 %	\$439,388	2 %	\$22,713,588
Long-term variable-rate loans	1,068,274	99	9,697	1	1,077,971
Total long-term loans	23,342,474	98	449,085	2	23,791,559
Line of credit loans	104,726	7	1,386,668	93	1,491,394
Total loans outstanding ⁽¹⁾	\$23,447,200	93	\$1,835,753	7	\$25,282,953
Company:					
CFC	\$22,414,376	93 %	\$1,745,859	7 %	\$24,160,235
NCSC	693,138	90	74,087	10	767,225
RTFC	339,686	96	15,807	4	355,493
Total loans outstanding ⁽¹⁾	\$23,447,200	93	\$1,835,753	7	\$25,282,953
(Dollars in thousands)	May 31, 2018				
	Secured	% of Total	Unsecured	% of Total	Total
Loan type:					
Long-term loans:					
Long-term fixed-rate loans	\$22,220,087	98 %	\$476,098	2 %	\$22,696,185
Long-term variable-rate loans	996,970	96	42,521	4	1,039,491
Total long-term loans	23,217,057	98	518,619	2	23,735,676
Line of credit loans	69,097	5	1,362,721	95	1,431,818
Total loans outstanding ⁽¹⁾	\$23,286,154	93	\$1,881,340	7	\$25,167,494
Company:					
CFC	\$22,233,592	93 %	\$1,784,327	7 %	\$24,017,919
NCSC	703,396	89	83,061	11	786,457
RTFC	349,166	96	13,952	4	363,118
Total loans outstanding ⁽¹⁾	\$23,286,154	93	\$1,881,340	7	\$25,167,494

⁽¹⁾ Represents the unpaid principal amount of loans as of the end of each period presented and excludes deferred loan origination costs of \$11 million as of both November 30, 2018 and May 31, 2018.

As part of our strategy in managing our credit risk exposure, we entered into a long-term standby purchase commitment agreement with Farmer Mac in fiscal year 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 \$643 million as of November 30, 2018, compared with \$660 million as of May 31, 2018. No loans have been put to Farmer Mac for purchase pursuant to this agreement. Our credit exposure is also mitigated by long-term loans guaranteed by RUS. Guaranteed RUS loans

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totaled \$158 million and \$161 million as of November 30, 2018 and May 31, 2018, respectively.

Credit Concentration

Concentrations may exist when there are amounts loaned to borrowers engaged in similar activities or in geographic areas that would cause them to be similarly impacted by economic or other conditions or when there are large exposures to single borrowers. As a tax-exempt, member-owned finance cooperative, CFC's principal focus is to provide funding to its rural electric utility cooperative members to assist them in acquiring, constructing and operating electric distribution, power supply systems and related facilities. Because we lend primarily to our rural electric utility cooperative members, we have a loan portfolio subject to single-industry and single-obligor concentrations. Outstanding loans to electric utility organizations represented approximately 99% of our total outstanding loan portfolio as of November 30, 2018, unchanged from May 31, 2018. Although our organizational structure and mission results in single-industry concentration, we serve a geographically diverse group of electric and telecommunications members throughout the United States and its territories, including all 50 states, the District of Columbia, American Samoa and Guam. Our consolidated membership totaled 1,449 members and 215 associates as of November 30, 2018. Texas had the largest concentration of outstanding loans to borrowers in any one state, with approximately 15% of total loans outstanding as of both November 30, 2018 and May 31, 2018.

Single-Obligor Concentration

Table 21 displays the combined exposure of loans and guarantees of the 20 largest borrowers, by exposure type and by company, as of November 30, 2018 and May 31, 2018. The 20 borrowers with the largest exposure consisted of nine distribution systems, 10 power supply systems and one NCSC associate member as of both November 30, 2018 and May 31, 2018. The largest total outstanding exposure to a single borrower or controlled group represented approximately 2% of total loans and guarantees outstanding as of both November 30, 2018 and May 31, 2018.

Table 21: Credit Exposure to 20 Largest Borrowers

(Dollars in thousands)	November 30, 2018		May 31, 2018		Change
	Amount	% of Total	Amount	% of Total	
By exposure type:					
Loans	\$5,485,246	21 %	\$5,613,991	22 %	\$(128,745)
Guarantees	340,598	1	347,138	1	(6,540)
Total exposure to 20 largest borrowers	5,825,844	22	5,961,129	23	(135,285)
Less: Loans covered under Farmer Mac standby purchase commitment	(347,921)	(1)	(354,694)	(1)	6,773
Net exposure to 20 largest borrowers	\$5,477,923	21 %	\$5,606,435	22 %	\$(128,512)
By company:					
CFC	\$5,576,453	21 %	\$5,703,723	22 %	\$(127,270)
NCSC	249,391	1	257,406	1	(8,015)
Total exposure to 20 largest borrowers	5,825,844	22	5,961,129	23	(135,285)
Less: Loans covered under Farmer Mac standby purchase commitment	(347,921)	(1)	(354,694)	(1)	6,773
Net exposure to 20 largest borrowers	\$5,477,923	21 %	\$5,606,435	22 %	\$(128,512)

Although CFC has been exposed to single-industry and single-obligor concentrations since inception in 1969, we historically have experienced limited defaults and very low credit losses in our electric loan portfolio. The likelihood of default and loss for our electric cooperative borrowers, which account for 99% of our outstanding loans as of

November 30, 2018, has been low due to several factors. First, as discussed above, we generally lend to our members on a senior secured basis. Second, electric cooperatives typically are consumer-owned, not-for-profit entities that provide an essential service to end-users, the majority of which are residential customers. Third, electric cooperatives face limited competition, as they tend to operate in exclusive territories not serviced by public investor-owned utilities. Fourth, the majority operate in states where electric cooperatives are not subject to rate regulation. Thus, they are able to make rate adjustments to pass along increased costs to the end customer without first obtaining state regulatory approval, allowing them to cover operating costs and generate sufficient earnings and cash flows to service their debt obligations. Finally, 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.

Credit Quality

Assessing the overall credit quality of our loan portfolio and measuring our credit risk is an ongoing process that involves tracking payment status, the internal risk ratings of our borrowers, troubled debt restructurings, nonperforming and impaired loans, charge-offs and other indicators of credit risk. We monitor and subject each borrower and loan facility in our loan portfolio to an individual risk assessment based on quantitative and qualitative factors. Internal risk ratings and payment status trends are indicators, among others, of the probability of borrower default and level of credit risk in our loan portfolio.

The overall credit quality of our loan portfolio remained high, as evidenced by our strong asset performance metrics, including low levels of criticized exposure. We generally lend to members on a senior secured basis, which reduces the risk of loss in the event of a borrower default. As displayed in Table 20 above, 93% of our total outstanding loans were secured as of both November 30, 2018 and May 31, 2018. We had no delinquent or nonperforming loans as of November 30, 2018 and May 31, 2018. In addition, we had no loan defaults or charge-offs during the six months ended November 30, 2018.

Borrower Risk Ratings

Our borrower risk ratings are intended to align with banking regulatory agency credit risk rating definitions of pass and criticized classifications, with loans classified as criticized further classified as special mention, substandard or doubtful. Pass ratings reflect relatively low probability of default, while criticized ratings have a higher probability of default. Loans with borrowers classified as criticized totaled \$184 million, or 0.73%, of total loans outstanding as of November 30, 2018. Of this amount, \$178 million, was classified as substandard. In comparison, loans with borrowers classified as criticized totaled \$178 million, or 0.71%, of total loans outstanding as of May 31, 2018. Of this amount, \$171 million was classified as substandard. We did not have any loans classified as doubtful as of November 30, 2018 or May 31, 2018. See “Note 4—Loans” for a description of each of the risk rating classifications.

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 troubled debt restructuring (“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 22 presents the carrying value of loans modified as TDRs and the performance status as of November 30, 2018 and May 31, 2018. Our last modification of a loan that met the definition of a TDR occurred in fiscal year 2017. Although TDR loans may be returned to performing status if the borrower performs under the modified terms of the loan for an extended period of time, TDR loans are considered individually impaired.

Table 22: Troubled Debt Restructured Loans

(Dollars in thousands)	November 30, 2018			May 31, 2018		
	Carrying Amount	% of Total Loans Outstanding		Carrying Amount	% of Total Loans Outstanding	
TDR loans:						
CFC	\$6,261	0.03	%	\$6,507	0.03	%
RTFC	5,842	0.02		6,092	0.02	
Total TDR loans	\$12,103	0.05	%	\$12,599	0.05	%
Performance status of TDR loans:						
Performing TDR loans	\$12,103	0.05	%	\$12,599	0.05	%

As indicated in Table 22 above, we did not have any TDR loans classified as nonperforming as of November 30, 2018 or May 31, 2018.

Nonperforming Loans

In addition to TDR loans that may be classified as nonperforming, we also may have nonperforming loans that have not been modified as a TDR loan. 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. We had no loans classified as nonperforming as of November 30, 2018 or May 31, 2018.

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. We had no loan defaults or charge-offs during the six months ended November 30, 2018 and 2017.

Historical Loan Losses

In its 49-year history, CFC has experienced only 16 defaults, of which 10 resulted in no loss and six resulted in the cumulative historical net charge-offs of \$86 million for our electric utility loan portfolio. Of this amount, \$67 million was attributable to electric utility power supply cooperatives and \$19 million was attributable to electric distribution cooperatives. We discuss the reasons loans to electric utility cooperatives, our principal lending market, typically have a relatively low risk of default above under "Credit Concentration."

In comparison, since RTFC's inception in 1987, 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 Caribbean Asset Holdings, LLC.

Outstanding loans to electric utility organizations totaled \$24,928 million and accounted for 99% of our total outstanding loan portfolio as of November 30, 2018, while outstanding RTFC telecommunications loans totaled \$355 million and accounted for 1% of our total outstanding loan portfolio as of November 30, 2018.

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

Allowance for Loan Losses

The allowance for loan losses represents management's estimate of probable losses inherent in our loan portfolio as of each balance sheet date. We determine the allowance based on borrower risk ratings, historical loss experience, specific problem loans, economic conditions and other pertinent factors that, in management's judgment, may affect the risk of loss in our loan portfolio.

Table 23 summarizes changes in the allowance for loan losses for the three and six months ended November 30, 2018 and 2017, and provides a comparison of the allowance by company as of November 30, 2018 and May 31, 2018.

Table 23: Allowance for Loan Losses

	Three Months Ended November 30,		Six Months Ended November 30,	
(Dollars in thousands)	2018	2017	2018	2017
Beginning balance	\$18,692	\$37,078	\$18,801	\$37,376
Benefit for loan losses	(1,788)	(304)	(1,897)	(602)
Ending balance	\$16,904	\$36,774	\$16,904	\$36,774

	November 30, 2018	May 31, 2018
Allowance for loan losses by company:		
CFC	\$12,174	\$12,300
NCSC	1,969	2,082
RTFC	2,761	4,419
Total	\$16,904	\$18,801

Allowance coverage ratios:		
Total loans outstanding ⁽¹⁾	\$25,282,953	\$25,167,494
Percentage of total loans outstanding	0.07 %	0.07 %

⁽¹⁾ Represents the unpaid principal amount of loans as of the end of each period presented and excludes unamortized deferred loan origination costs of \$11 million as of both November 30, 2018 and May 31, 2018.

Our allowance for loan losses decreased by \$2 million to \$17 million as of November 30, 2018 from May 31, 2018. The allowance coverage ratio was 0.07% as of both November 30, 2018 and May 31, 2018. We had no loans classified as nonperforming as of November 30, 2018 or May 31, 2018. We experienced no charge-offs during the three and six months ended November 30, 2018 and 2017. Loans designated as individually impaired totaled \$12 million and \$13 million as of November 30, 2018 and May 31, 2018, respectively, and the specific allowance related to those loans totaled \$1 million as of both November 30, 2018 and May 31, 2018.

See "MD&A—Critical Accounting Policies and Estimates—Allowance for Loan Losses" and "Note 1—Summary of Significant Accounting Policies" in our 2018 Form 10-K for additional information on the methodology for determining our allowance for loan losses and the key assumptions. See "Note 4—Loans" of this report for additional information on the credit quality of our loan portfolio.

Counterparty Credit Risk

We are exposed to counterparty credit risk related to the performance of the parties with which we enter into financial transactions, primarily for derivative instruments, cash and time deposit accounts and our investment security holdings. 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 monitoring the overall credit worthiness of each counterparty based on our internal counterparty credit risk scoring model; using counterparty-specific credit risk limits; executing master netting arrangements; and diversifying our derivative transactions among multiple counterparties. We also require that our derivative counterparties be a participant in one of our committed bank revolving line of credit agreements. Our derivative counterparties had credit ratings ranging from Aa2 to Baa2 by Moody's Investors Service ("Moody's") and from AA- to BBB+ by S&P Global Inc. ("S&P") as of November 30, 2018. Our largest counterparty exposure, based on the outstanding notional amount, represented approximately 23% and 24% of the total outstanding notional amount of derivatives as of November 30, 2018 and May 31, 2018, 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 below 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 prevailing fair 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 November 30, 2018. Both Moody's and S&P had our ratings on stable outlook as of November 30, 2018. Table 24 displays the notional amounts of our derivative contracts with rating triggers as of November 30, 2018, 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.

Table 24: 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⁾	\$52,555	\$(7,819)	\$ —	\$ (7,819)
Falls below Baa1/BBB+	7,308,946	(37,072)	75,448	38,376
Falls to or below Baa2/BBB ⁽²⁾	525,293	—	7,137	7,137
Falls below Baa3/BBB-	222,643	(8,952)	—	(8,952)
Total	\$8,109,437	\$(53,843)	\$ 82,585	\$ 28,742

⁽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.

We have outstanding notional amount of derivatives with one counterparty subject to a ratings trigger and early termination provision in the event of a downgrade of CFC's senior unsecured credit ratings below Baa3, BBB- or BBB- by Moody's, S&P or Fitch Ratings Inc. ("Fitch"), respectively, which is not included in the above table, totaling \$165 million as of November 30, 2018. These contracts were in an unrealized gain position of \$2 million as of November 30, 2018.

The aggregate fair value amount, including the credit valuation adjustment, of all interest rate swaps with rating triggers that were in a net liability position was \$54 million as of November 30, 2018. There were no counterparties that fell below the rating trigger levels in our interest swap contracts as of November 30, 2018. 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 prematurely because our interest rate swaps are critical to our matched funding strategy to mitigate interest rate risk.

See “Item 1A. Risk Factors” in our 2018 Form 10-K for additional information about credit risk related to our business.

LIQUIDITY RISK

We define liquidity as the ability to convert assets to cash quickly and efficiently, maintain access to readily available funding and rollover or issue new debt, under both normal operating conditions and periods of CFC-specific and/or market stress, to ensure that we can meet borrower loan requests, pay current and future obligations and fund our operations on a cost-effective basis. Our primary sources of liquidity include cash flows from operations, member loan repayments, committed bank revolving lines of credit, committed loan facilities under the Guaranteed Underwriter Program, revolving note purchase agreements with Farmer Mac and our ability to issue debt in the capital markets, to our members and in private placements. We provide a discussion of our liquidity risk-management framework and activities undertaken to manage liquidity risk in our 2018 Form 10-K under “Item 7. MD&A—Liquidity Risk—Liquidity Risk Management.”

Available Liquidity

As part of our strategy in managing liquidity risk and meeting our liquidity objectives, we seek to maintain a substantial level of on-balance sheet and off-balance sheet sources of liquidity that are readily available for access to meet our near-term liquidity needs. Table 25 presents the sources of our available liquidity as of November 30, 2018, compared with May 31, 2018.

Table 25: Available Liquidity

(Dollars in millions)	November 30, 2018			May 31, 2018		
	Total	Accessed	Available	Total	Accessed	Available
Cash and cash equivalents	\$227	\$ —	\$ 227	\$231	\$ —	\$ 231
Committed bank revolving line of credit agreements—unsecured ⁽¹⁾	2,975	3	2,972	3,085	3	3,082
Guaranteed Underwriter Program committed facilities—secured ⁽²⁾	7,298	5,423	1,875	6,548	5,323	1,225
Farmer Mac revolving note purchase agreement, dated March 24, 2011, as amended—secured ⁽³⁾	5,200	2,763	2,437	5,200	2,791	2,409
Farmer Mac revolving note purchase agreement, dated July 31, 2015, as amended—secured	300	—	300	300	100	200
Total	\$16,000	\$ 8,189	\$ 7,811	\$15,364	\$ 8,217	\$ 7,147

(1) The committed bank revolving line of credit agreements consist of a three-year and a five-year line of credit agreement. The accessed amount of \$3 million as of both November 30, 2018 and May 31, 2018, relates to letters of credit issued pursuant to the five-year line of credit agreement.

(2) The committed facilities under the Guaranteed Underwriter Program are not revolving.

(3) Availability subject to market conditions.

We believe we have sufficient liquidity from the available on- and off-balance sheet liquidity sources presented above in Table 25 and our ability to issue debt to meet demand for member loan advances and satisfy our obligations to repay long-term debt maturing over the next 12 months.

Borrowing Capacity Under Current Facilities

Following is a discussion of our borrowing capacity and key terms and conditions under our revolving line of credit agreements with banks and committed loan facilities under the Guaranteed Underwriter Program and revolving note purchase agreements with Farmer Mac.

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 member and dealer commercial paper. We had \$2,975 million of commitments under committed bank revolving line of credit agreements as of November 30, 2018. 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.

On November 28, 2018, we amended the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 28, 2021 and November 28, 2023, respectively, and to terminate certain third-party bank commitments totaling \$53 million under the three-year agreement and \$57 million under the five-year agreement. As a result, the total commitment amount from third-parties under the three-year facility and the five-year facility is \$1,440 million and \$1,535 million, respectively, resulting in a combined total commitment amount under the two facilities of \$2,975 million.

Table 26 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 November 30, 2018. We did not have any outstanding borrowings under our bank revolving line of credit agreements as of November 30, 2018.

Table 26: Committed Bank Revolving Line of Credit Agreements
November 30, 2018

(Dollars in millions)	Total Commitment	Letters of Credit Outstanding	Net Available for Advance	Maturity	Annual Facility Fee ⁽¹⁾
3-year agreement	\$1,440	\$ —	\$ 1,440	November 28, 2021	7.5 bps
5-year agreement	1,535	3	1,532	November 28, 2023	10 bps
Total	\$2,975	\$ 3	\$ 2,972		

⁽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.

Our 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 "Financial Ratios and Debt Covenants" 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 make new loans and 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 November 15, 2018, we closed on a \$750 million committed loan facility (Series N) from the Federal Financing Bank under the Guaranteed Underwriter Program. Pursuant to this facility, we may borrow any time before July 15, 2023. Each advance is subject to quarterly amortization and a final maturity not longer than 20 years from the advance date. The closing of this committed loan facility increased the amount available for access under the Guaranteed Underwriter Program to \$1,875 million as of November 30, 2018. Of this amount, \$375 million is available for advance through October 15, 2019, \$750 million is available for advance through July 15, 2022 and \$750 million is available for advance through July 15, 2023.

We are required to pledge eligible distribution system loans 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” for additional information on pledged collateral.

Farmer Mac Revolving Note Purchase Agreements—Secured

As indicated in Table 25, we have two revolving note purchase agreements with Farmer Mac, which together allow us to borrow up to \$5,500 million from Farmer Mac. Under our first revolving note purchase agreement with Farmer Mac, dated March 24, 2011, as amended, we can borrow, subject to market conditions, up to \$5,200 million at any time through January 11, 2022, 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 had outstanding secured notes payable totaling \$2,763 million and \$2,791 million as of November 30, 2018 and May 31, 2018, respectively, under the Farmer Mac revolving note purchase agreement of \$5,200 million. The available borrowing amount totaled \$2,437 million as of November 30, 2018.

Under our second revolving note purchase agreement with Farmer Mac, dated July 31, 2015, as amended, we can borrow up to \$300 million at any time through December 20, 2023 at a fixed spread over LIBOR. 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. Prior to the maturity date, Farmer Mac may terminate the agreement upon 30 days written notice to us on periodic facility renewal dates, the first of which is January 31, 2019. Subsequent facility renewal dates are on each June 20 or December 20 thereafter until the maturity date. We may terminate the agreement upon 30 days written notice at any time. Under the terms of the first revolving note purchase agreement with Farmer Mac described above, the \$5,200 million commitment will increase to \$5,500 million in the event the second revolving note purchase agreement is terminated. We had no outstanding notes payable under this agreement as of November 30, 2018. We had outstanding borrowings of \$100 million as of May 31, 2018 under this revolving note purchase agreement with Farmer Mac.

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” for additional information on pledged collateral.

Short-Term Borrowings and Long-Term and Subordinated Debt

Additional funding is provided by short-term borrowings and issuances of long-term and subordinated debt. We rely on short-term borrowings as a source to meet our daily, near-term funding needs. 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 effectively manage our refinancing and interest rate risk.

Short-Term Borrowings

Our short-term borrowings consist of commercial paper, which we offer to members and dealers, select notes and daily liquidity fund notes offered to members, and bank-bid notes and medium-term notes offered to members and dealers.

Table 27 displays the composition, by funding source, of our short-term borrowings as of November 30, 2018 and May 31, 2018. Member borrowings accounted for 74% of total short-term borrowings as of November 30, 2018,

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compared with 69% of total short-term borrowings as of May 31, 2018.

Table 27: Short-Term Borrowings—Funding Sources

(Dollars in thousands)	November 30, 2018		May 31, 2018	
	Amount Outstanding	% of Total Short-Term Borrowings	Amount Outstanding	% of Total Short-Term Borrowings
Funding source:				
Members	\$3,041,657	74 %	\$2,631,644	69 %
Capital markets	1,058,949	26	1,164,266	31
Total	\$4,100,606	100 %	\$3,795,910	100 %

Table 28 displays the composition, by product type, of our short-term borrowings as of November 30, 2018 and May 31, 2018.

Table 28: Short-Term Borrowings

(Dollars in thousands)	November 30, 2018		May 31, 2018	
	Amount Outstanding	% of Total Debt Outstanding	Amount Outstanding	% of Total Debt Outstanding
Short-term borrowings:				
Commercial paper:				
Commercial paper to dealers, net of discounts	\$1,058,949	4 %	\$1,064,266	4 %
Commercial paper to members, at par	1,218,730	5	1,202,105	5
Total commercial paper	2,277,679	9	2,266,371	9
Select notes to members	1,031,022	4	780,472	3
Daily liquidity fund notes to members	566,935	3	400,635	2
Medium-term notes to members	224,970	1	248,432	1
Farmer Mac revolving facility	—	—	100,000	—
Total short-term borrowings	\$4,100,606	17 %	\$3,795,910	15 %

Our short-term borrowings increased by \$305 million to \$4,101 million as of November 30, 2018 from May 31, 2018. Our intent is 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. Outstanding dealer commercial paper of \$1,059 million and \$1,064 million as of November 30, 2018 and May 31, 2018, respectively, was below our maximum threshold of \$1,250 million.

Long-Term and Subordinated Debt

In addition to access to private debt facilities, we also issue debt in the public capital markets. Pursuant to Rule 405 of the Securities Act, we are classified as a “well-known seasoned issuer.” See “Item 7. MD&A—Liquidity Risk” in our 2018 Form 10-K for additional information on our shelf registration statements with the SEC.

As discussed in “Consolidated Balance Sheet Analysis—Debt,” long-term and subordinated debt totaled \$20,596 million and accounted for 83% of total debt outstanding as of November 30, 2018, from \$20,837 million, or 85%, of total debt outstanding as of May 31, 2018. Table 29 summarizes long-term and subordinated debt issuances and repayments during the six months ended November 30, 2018.

Table 29: Issuances and Repayments of Long-Term and Subordinated Debt⁽¹⁾

(Dollars in thousands)	Six Months Ended November 30, 2018		
	Issuances	Repayments ⁽²⁾	Change
Long-term and subordinated debt activity:			
Collateral trust bonds	\$625,000	\$ 1,180,000	\$(555,000)
Guaranteed Underwriter Program notes payable	100,000	30,832	69,168
Farmer Mac notes payable	250,000	278,015	(28,015)
Medium-term notes sold to members	92,800	91,093	1,707
Medium-term notes sold to dealers	301,957	31,497	270,460
Members' subordinated certificates	964	4,279	(3,315)
Total	\$1,370,721	\$ 1,615,716	\$(244,995)

⁽¹⁾Amounts exclude unamortized debt issuance costs and discounts.

⁽²⁾Repayments include principal maturities, scheduled amortization payments, repurchases and redemptions.

Table 30 summarizes the scheduled amortization of the principal amount of long-term debt, subordinated deferrable debt and members' subordinated certificates as of November 30, 2018.

Table 30: Principal Maturity of Long-Term and Subordinated Debt

(Dollars in thousands)	Amount	% of
	Maturing (1)	
Fiscal year ending:		Total
May 31, 2019	\$ 1,168,993	6 %
May 31, 2020	1,560,914	7
May 31, 2021	1,806,498	9
May 31, 2022	1,908,045	9
May 31, 2023	1,171,211	6
Thereafter	12,980,419	63
Total	\$20,596,080	100%

⁽¹⁾Excludes \$0.2 million in subscribed and unissued member subordinated certificates for which a payment has been received. Member loan subordinated certificates totaling \$272 million amortize annually based on the unpaid principal balance of the related loan.

We provide additional information on our financing activities above under "Consolidated Balance Sheet Analysis—Debt."

Investment Portfolio

In addition to our primary sources of liquidity discussed above, we have an investment portfolio composed of equity securities and held-to-maturity debt securities. We intend for our investment portfolio, which totaled \$645 million and \$710 million as of November 30, 2018 and May 31, 2018, respectively, to remain adequately liquid to serve as a contingent supplemental source of liquidity for unanticipated liquidity needs.

Pursuant to our investment policy and guidelines, all fixed-income debt securities, at the time of purchase, must be rated at least investment grade and on stable outlook based on external credit ratings from at least two of the leading global credit rating agencies, when available, or the corresponding equivalent, when not available. Securities rated investment grade, that is those rated Baa3 or higher by Moody's or BBB- or higher by S&P or BBB- or higher by Fitch, are generally considered by the rating agencies to be of lower credit risk than non-investment grade securities.

We have the positive intent and ability to hold these securities to maturity. As such, we have classified them as held to maturity on our condensed consolidated balance sheet.

Our investment portfolio is unencumbered and structured so that securities have active secondary or resale markets under normal market conditions. The objective of the portfolio is to achieve returns commensurate with the level of risk assumed subject to CFC's investment policy and guidelines and liquidity requirements.

We provide additional information on our investment securities in "Note 3—Investment Securities."

Projected Near-Term Sources and Uses of Liquidity

As discussed above, our primary sources of liquidity include cash flows from operations, member loan repayments, committed bank revolving lines of credit, committed loan facilities, short-term borrowings and funds from the issuance of long-term and subordinated debt. Our primary uses of liquidity include loan advances to members, principal and interest payments on borrowings, periodic settlement payments related to derivative contracts, and operating expenses.

Table 31 below displays our projected sources and uses of cash, by quarter, over the next six quarters through the quarter ending May 31, 2020. 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 and on maintaining outstanding dealer commercial paper at an amount below \$1,250 million; (ii) long-term loan scheduled amortization payments represent the scheduled long-term loan payments for loans outstanding as of November 30, 2018, 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 31: Projected Sources and Uses of Liquidity⁽¹⁾

(Dollars in millions)	Projected Sources of Liquidity				Projected Uses of Liquidity				
	Long-Term Debt Issuance	Anticipated Long-Term Loan Repayments ⁽²⁾	Other Loan Repayments ⁽³⁾	Total Projected Sources of Liquidity	Long-Term Debt Maturities ⁽⁴⁾	Long-Term Loan Advances	Other Loan Advances	Total Projected Uses of Liquidity	Other Sources/ (Uses) of Liquidity ⁽⁵⁾
3Q FY 2019	\$1,320	\$ 405	\$ 106	\$ 1,831	\$780	\$ 790	\$ 547	\$ 2,117	\$ 168
4Q FY 2019	495	292	269	1,056	509	434	—	943	(219)
1Q FY 2020	340	321	—	661	294	328	—	622	(25)
2Q FY 2020	815	293	—	1,108	735	346	—	1,081	(74)
3Q FY 2020	690	317	—	1,007	571	501	—	1,072	42
4Q FY 2020	90	301	—	391	76	406	—	482	15
Total	\$3,750	\$ 1,929	\$ 375	\$ 6,054	\$2,965	\$ 2,805	\$ 547	\$ 6,317	\$ (93)

⁽¹⁾ The dates presented represent the end of each quarterly period through the quarter ending May 31, 2020.

⁽²⁾ Anticipated long-term loan repayments include scheduled long-term loan amortizations, anticipated cash repayments at repricing date and sales.

⁽³⁾ Other loan repayments include anticipated short-term loan repayments.

⁽⁴⁾ Long-term debt maturities also include medium-term notes with an original maturity of one year or less and expected early redemptions of debt.

⁽⁵⁾ Includes net increase or decrease to dealer commercial paper, and purchases and maturity of investments.

As displayed in Table 31, we currently project long-term advances of \$1,898 million over the next 12 months, which we anticipate will exceed anticipated loan repayments over the same period of \$1,311 million by approximately \$587 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.

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 32 displays our credit ratings as of November 30, 2018. Moody's, S&P and Fitch affirmed our ratings and outlook during the current quarter. Our credit ratings as of November 30, 2018 are unchanged from May 31, 2018, and as of the date of the filing of this Report.

Table 32: Credit Ratings

	November 30, 2018		
	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
Subordinated debt	A3	BBB+	BBB+
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.

Financial Ratios

Our debt-to-equity ratio decreased to 15.49-to-1 as of November 30, 2018, from 16.72-to-1 as of May 31, 2018, primarily due to an increase in equity resulting from our reported net income of \$168 million for the six months ended November 30, 2018, which was partially offset by the patronage capital retirement of \$48 million in August 2018.

Our adjusted debt-to-equity ratio decreased to 6.15-to-1 as of November 30, 2018, from 6.18-to-1 as of May 31, 2018, primarily attributable to an increase in adjusted equity due to our adjusted net income of \$73 million, which was partially offset by the patronage capital retirement of \$48 million. We provide a reconciliation of our adjusted debt-to-equity ratio to the most comparable GAAP measure and an explanation of the adjustments below in "Non-GAAP Financial Measures."

Debt Covenants

As part of our short-term and long-term borrowing arrangements, we are subject to various financial and operational covenants. If we fail to maintain specified financial ratios, such failure could constitute a default by CFC of certain

debt covenants under our committed bank revolving line of credit agreements and senior debt indentures. We were in compliance with all covenants and conditions under our committed bank revolving line of credit agreements and senior debt indentures as of November 30, 2018.

As discussed above in “Summary of 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, including adjusted TIER. We provide a reconciliation of adjusted TIER and other non-GAAP measures disclosed in this report to the most comparable GAAP measures and an explanation of the adjustments below in “Non-GAAP Financial Measures.”

MARKET RISK

Interest rate risk represents our primary source of market risk. Interest rate risk is the risk to current or anticipated earnings or equity arising primarily from movements in interest rates. This risk results from differences between the timing of cash flows on our assets and the liabilities funding those assets. The timing of cash flows of our assets is impacted by re-pricing characteristics, prepayments and contractual maturities. Our interest rate risk exposure is primarily related to the funding of the fixed-rate loan portfolio. We provide a discussion of how we manage interest rate risk in our 2018 Form 10-K under “Item 7. MD&A—Market Risk—Market Risk Management.”

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 assets, 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 33 displays the scheduled amortization and repricing of fixed-rate assets and liabilities outstanding as of November 30, 2018. 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 10% of our total loan portfolio as of both November 30, 2018 and May 31, 2018. 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 33: Interest Rate Gap Analysis

(Dollars in millions)	Prior to 5/31/19	Two Years 6/1/19 to 5/31/21	Two Years 6/1/21 to 5/31/23	Five Years 6/1/23 to 5/31/28	10 Years 6/1/28 to 5/31/38	6/1/38 and Thereafter	Total
Asset amortization and repricing	\$ 881	\$ 3,304	\$ 3,065	\$ 5,758	\$ 6,893	\$ 3,230	\$ 23,131
Liabilities and members' equity:							
Long-term debt ⁽¹⁾	\$ 734	\$ 3,362	\$ 3,017	\$ 5,936	\$ 4,750	\$ 1,715	\$ 19,514
Subordinated certificates	8	42	58	974	155	578	1,815
Members' equity ⁽²⁾	—	23	24	104	290	924	1,365
Total liabilities and members' equity ⁽³⁾	\$ 742	\$ 3,427	\$ 3,099	\$ 7,014	\$ 5,195	\$ 3,217	\$ 22,694
Gap ⁽⁴⁾	\$ 139	\$(123)	\$(34)	\$(1,256)	\$ 1,698	\$ 13	\$ 437
Cumulative gap	139	16	(18)	(1,274)	424	437	
Cumulative gap as a % of total assets	0.52 %	0.06 %	(0.07)%	(4.75)%	1.58 %	1.63 %	
Cumulative gap as a % of adjusted total assets ⁽⁵⁾	0.52	0.06	(0.07)	(4.81)	1.60	1.65	

⁽¹⁾Includes long-term fixed-rate debt and net fixed-rate swaps.

⁽²⁾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.

⁽³⁾Debt is presented based on call date.

⁽⁴⁾Calculated based on the amount of assets amortizing and repricing less total liabilities and members' equity.

⁽⁵⁾Adjusted total assets represents total assets reported in our condensed consolidated balance sheets less derivative assets.

The difference, or interest rate gap, of \$437 million between the fixed-rate loans scheduled for amortization or repricing of \$23,131 million and the fixed-rate liabilities and equity funding the loans of \$22,694 million presented in Table 33 reflects the amount of fixed-rate assets that are funded with short-term and variable-rate debt as of November 30, 2018. The gap of \$437 million represented 1.63% of total assets and 1.65% of adjusted total assets (total assets excluding derivative assets) as of November 30, 2018. 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.

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 in our 2018 Form 10-K under "Item 7. MD&A—Non-GAAP Measures." Below we 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 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. In addition, certain of the financial covenants in our committed bank revolving line of credit agreements and debt indentures are based on our adjusted measures.

Statements of Operations Non-GAAP Adjustments

Table 34 provides a reconciliation of adjusted interest expense, adjusted net interest income and adjusted net income to the comparable GAAP measures for the three and six months ended November 30, 2018 and 2017. The adjusted amounts are used in the calculation of our adjusted net interest yield and adjusted TIER.

Table 34: Adjusted Financial Measures — Income Statement

	Three Months Ended		Six Months Ended	
	November 30,		November 30,	
(Dollars in thousands)	2018	2017	2018	2017
Interest expense	\$(204,166)	\$(195,170)	\$(414,397)	\$(387,901)
Include: Derivative cash settlements	(11,805)	(19,635)	(24,634)	(39,857)
Adjusted interest expense	\$(215,971)	\$(214,805)	\$(439,031)	\$(427,758)
Net interest income	\$77,087	\$70,653	\$145,347	\$143,837
Include: Derivative cash settlements	(11,805)	(19,635)	(24,634)	(39,857)
Adjusted net interest income	\$65,282	\$51,018	\$120,713	\$103,980
Net income	\$119,726	\$178,723	\$167,704	\$187,738
Exclude: Derivative forward value gains	75,148	145,228	95,160	119,252
Adjusted net income	\$44,578	\$33,495	\$72,544	\$68,486

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 and Adjusted TIER

Table 35 presents our TIER and adjusted TIER for the three and six months ended November 30, 2018 and 2017.

Table 35: TIER and Adjusted TIER

	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
TIER ⁽¹⁾	1.59	1.92	1.40	1.48

Adjusted TIER ⁽²⁾ 1.21 1.16 1.17 1.16

⁽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.

Debt-to-Equity and Adjusted Debt-to-Equity

Table 36 provides a reconciliation between the liabilities and equity used to calculate the debt-to-equity ratio and the adjusted debt-to-equity ratio as of November 30, 2018 and May 31, 2018. As indicated in the table below, subordinated debt is treated in the same manner as equity in calculating our adjusted-debt-to-equity ratio.

Table 36: Adjusted Financial Measures — Balance Sheet

(Dollars in thousands)	November 30, 2018	May 31, 2018
Total liabilities	\$25,202,620	\$25,184,351
Exclude:		
Derivative liabilities	255,112	275,932
Debt used to fund loans guaranteed by RUS	157,593	160,865
Subordinated deferrable debt	742,480	742,410
Subordinated certificates	1,376,689	1,379,982
Adjusted total liabilities	\$22,670,746	\$22,625,162
Total equity	\$1,627,138	\$1,505,853
Exclude:		
Prior year-end cumulative derivative forward value losses	(34,974)	(340,976)
Current year cumulative derivative forward value gains	95,160	306,002
Accumulated other comprehensive income ⁽¹⁾	2,800	1,980
Include:		
Subordinated certificates	1,376,689	1,379,982
Subordinated deferrable debt	742,480	742,410
Adjusted total equity	\$3,683,321	\$3,661,239

⁽¹⁾ Represents the AOCI related to derivatives. See “Note 10—Equity” for a breakout of our AOCI components.

Table 37 displays the calculations of our debt-to-equity and adjusted debt-to-equity ratios as of November 30, 2018 and May 31, 2018.

Table 37: Debt-to-Equity Ratio

	November 30, 2018	May 31, 2018
Debt-to-equity ratio ⁽¹⁾	15.49	16.72
Adjusted debt-to-equity ratio ⁽²⁾	6.15	6.18

⁽¹⁾ Calculated based on total liabilities 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 at period end divided by adjusted total equity at period end.

Members' Equity

Table 38 provides a reconciliation of members' equity to total CFC equity as of November 30, 2018 and May 31, 2018.

Table 38: Members' Equity

(Dollars in thousands)	November 30, 2018	May 31, 2018
Members' equity:		
Total CFC equity	\$ 1,594,588	\$ 1,474,333
Excludes:		
Accumulated other comprehensive income	832	8,544
Current year-end cumulative derivative forward value gains (losses)	63,431	(30,831)
Subtotal	64,263	(22,287)
Members' equity	\$ 1,530,325	\$ 1,496,620

Item 1. Financial Statements

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NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(UNAUDITED)

	Three Months Ended November 30,		Six Months Ended November 30,	
(Dollars in thousands)	2018	2017	2018	2017
Interest income	\$281,253	\$265,823	\$559,744	\$531,738
Interest expense	(204,166)	(195,170)	(414,397)	(387,901)
Net interest income	77,087	70,653	145,347	143,837
Benefit for loan losses	1,788	304	1,897	602
Net interest income after benefit for loan losses	78,875	70,957	147,244	144,439
Non-interest income:				
Fee and other income	4,321	5,542	7,506	9,487
Derivative gains	63,343	125,593	70,526	79,395
Results of operations of foreclosed assets	—	(10)	—	(34)
Total non-interest income	67,664	131,125	78,032	88,848
Non-interest expense:				
Salaries and employee benefits	(12,392)	(12,009)	(25,074)	(23,832)
Other general and administrative expenses	(11,478)	(9,905)	(22,001)	(19,718)
Losses on early extinguishment of debt	—	—	(7,100)	—
Other non-interest expense	(2,700)	(618)	(3,094)	(1,140)
Total non-interest expense	(26,570)	(22,532)	(57,269)	(44,690)
Income before income taxes	119,969	179,550	168,007	188,597
Income tax expense	(243)	(827)	(303)	(859)
Net income	119,726	178,723	167,704	187,738
Less: Net income attributable to noncontrolling interests	(466)	(1,150)	(479)	(1,032)
Net income attributable to CFC	\$119,260	\$177,573	\$167,225	\$186,706

See accompanying notes to condensed consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
 CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
 (UNAUDITED)

	Three Months Ended November 30,		Six Months Ended November 30,	
(Dollars in thousands)	2018	2017	2018	2017
Net income	\$ 119,726	\$ 178,723	\$ 167,704	\$ 187,738
Other comprehensive income (loss):				
Unrealized losses on equity securities	—	8	—	(1,143)
Unrealized gain on cash flow hedge	1,035	—	1,059	—
Reclassification of derivative gains to net income	(120)	(194)	(239)	(386)
Defined benefit plan adjustments	131	126	262	253
Other comprehensive income (loss)	1,046	(60)	1,082	(1,276)
Total comprehensive income	120,772	178,663	168,786	186,462
Less: Total comprehensive income attributable to noncontrolling interests	(466)	(1,150)	(479)	(1,032)
Total comprehensive income attributable to CFC	\$ 120,306	\$ 177,513	\$ 168,307	\$ 185,430

See accompanying notes to condensed consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(UNAUDITED)

(Dollars in thousands)	November 30, 2018	May 31, 2018
Assets:		
Cash and cash equivalents	\$ 226,758	\$ 230,999
Restricted cash	16,174	7,825
Total cash, cash equivalents and restricted cash	242,932	238,824
Time deposits	—	100,000
Investment securities:		
Equity securities	86,988	89,332
Debt securities held to maturity, at amortized cost	558,071	520,519
Total investment securities	645,059	609,851
Loans to members	25,294,175	25,178,608
Less: Allowance for loan losses	(16,904)	(18,801)
Loans to members, net	25,277,271	25,159,807
Accrued interest receivable	133,988	127,442
Other receivables	37,824	39,220
Fixed assets, net	118,490	116,031
Derivative assets	319,687	244,526
Other assets	54,507	54,503
Total assets	\$ 26,829,758	\$ 26,690,204
Liabilities:		
Accrued interest payable	\$ 146,639	\$ 149,284
Debt outstanding:		
Short-term borrowings	4,100,606	3,795,910
Long-term debt	18,477,156	18,714,960
Subordinated deferrable debt	742,480	742,410
Members' subordinated certificates:		
Membership subordinated certificates	630,468	630,448
Loan and guarantee subordinated certificates	525,051	528,386
Member capital securities	221,170	221,148
Total members' subordinated certificates	1,376,689	1,379,982
Total debt outstanding	24,696,931	24,633,262
Deferred income	61,516	65,922
Derivative liabilities	255,112	275,932
Other liabilities	42,422	59,951
Total liabilities	25,202,620	25,184,351
Equity:		
CFC equity:		
Retained equity	1,593,756	1,465,789
Accumulated other comprehensive income (loss)	832	8,544

Total CFC equity	1,594,588	1,474,333
Noncontrolling interests	32,550	31,520
Total equity	1,627,138	1,505,853
Total liabilities and equity	\$ 26,829,758	\$ 26,690,204

See accompanying notes to condensed consolidated financial statements.

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NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
 CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
 (UNAUDITED)

(Dollars in thousands)	Three and Six Months Ended November 30, 2018								
	Membership Fees and Education Fund	Patronage Capital Allocated	Members' Capital Reserve	Unallocated Net Income (Loss)	CFC Retained Equity	Accumulated Other Comprehensive Income (Loss)	Total CFC Equity	Non-controlled Interests	Total Equity
Balance as of August 31, 2018	\$2,609	\$763,986	\$687,785	\$20,325	\$1,474,705	\$(214)	\$1,474,491	\$32,085	\$1,506,576
Net income	—	—	—	119,260	119,260	—	119,260	466	119,726
Other comprehensive income	—	—	—	—	—	1,046	1,046	—	1,046
Other	(209)	—	—	—	(209)	—	(209)	(1)	(210)
Balance as of November 30, 2018	\$2,400	\$763,986	\$687,785	\$139,585	\$1,593,756	\$832	\$1,594,588	\$32,550	\$1,627,138
Balance as of May 31, 2018	\$2,945	\$811,493	\$687,785	\$(36,434)	\$1,465,789	\$8,544	\$1,474,333	\$31,520	\$1,505,853
Cumulative effect from adoption of new accounting standard	—	—	—	8,794	8,794	(8,794)	—	—	—
Balance as of June 1, 2018	2,945	811,493	687,785	(27,640)	1,474,583	(250)	1,474,333	31,520	1,505,853
Net income	—	—	—	167,225	167,225	—	167,225	479	167,704
Other comprehensive income	—	—	—	—	—	1,082	1,082	—	1,082
Patronage capital retirement	—	(47,507)	—	—	(47,507)	—	(47,507)	—	(47,507)
Other	(545)	—	—	—	(545)	—	(545)	551	6
Balance as of November 30, 2018	\$2,400	\$763,986	\$687,785	\$139,585	\$1,593,756	\$832	\$1,594,588	\$32,550	\$1,627,138

Three and Six Months Ended November 30, 2017

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(Dollars in thousands)	Members' Fees and Educational Fund	Patronage Capital Allocated	Members' Capital Reserve	Unallocated Net Income (Loss)	CFC Retained Equity	Accumulated Other Comprehensive Income (Loss)	Edtal CFC Equity	Non-controlled Interests	Total Equity
Balance as of August 31, 2017	\$2,544	\$716,481	\$630,305	\$(328,995)	\$1,020,335	\$11,959	\$1,032,294	\$29,286	\$1,061,580
Net income	—	—	—	177,573	177,573	—	177,573	1,150	178,723
Other comprehensive loss	—	—	—	—	—	(60)	(60)	—	(60)
Other	(178)	—	—	—	(178)	—	(178)	(17)	(195)
Balance as of November 30, 2017	\$2,366	\$716,481	\$630,305	\$(151,422)	\$1,197,730	\$11,899	\$1,209,629	\$30,419	\$1,240,048
Balance as of May 31, 2017	\$2,900	\$761,701	\$630,305	\$(338,128)	\$1,056,778	\$13,175	\$1,069,953	\$28,852	\$1,098,805
Net income	—	—	—	186,706	186,706	—	186,706	1,032	187,738
Other comprehensive loss	—	—	—	—	—	(1,276)	(1,276)	—	(1,276)
Patronage capital retirement	—	(45,220)	—	—	(45,220)	—	(45,220)	—	(45,220)
Other	(534)	—	—	—	(534)	—	(534)	535	1
Balance as of November 30, 2017	\$2,366	\$716,481	\$630,305	\$(151,422)	\$1,197,730	\$11,899	\$1,209,629	\$30,419	\$1,240,048

See accompanying notes to condensed consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
 CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
 (UNAUDITED)

	Six Months Ended November 30,	
	2018	2017
(Dollars in thousands)		
Cash flows from operating activities:		
Net income	\$ 167,704	\$ 187,738
Adjustments to reconcile net income to net cash provided by operating activities:		
Amortization of deferred loan fees	(5,201)	(6,149)
Amortization of debt issuance costs and deferred charges	5,596	5,148
Amortization of discount on long-term debt	5,416	4,943
Amortization of issuance costs for bank revolving lines of credit	2,813	2,768
Depreciation and amortization	4,346	3,769
Benefit for loan losses	(1,897)	(602)
Loss on early extinguishment of debt	7,100	—
Derivative forward value (gains) losses	(95,160)	(119,252)
Changes in operating assets and liabilities:		
Accrued interest receivable	(6,547)	(5,277)
Accrued interest payable	(2,645)	5,609
Deferred income	796	(133)
Other	(14,121)	(7,589)
Net cash provided by operating activities	68,200	70,973
Cash flows from investing activities:		
Advances on loans, net	(115,459)	(457,212)
Investment in fixed assets	(7,403)	(6,437)
Net proceeds from time deposits	100,000	175,000
Purchases of held-to-maturity investments	(52,845)	(248,181)
Proceeds from maturities of held-to-maturity investments	15,354	—
Net cash provided by (used in) investing activities	(60,353)	(536,830)
Cash flows from financing activities:		
Proceeds from (repayments of) short-term borrowings, net	341,562	181,501
Proceeds from short-term borrowings with original maturity greater than 90 days	629,350	570,060
Repayments of short term-debt with original maturity greater than 90 days	(666,216)	(537,269)
Payments for issuance costs for revolving bank lines of credit	(2,342)	(2,402)
Proceeds from issuance of long-term debt, net of discount and issuance costs	1,362,714	625,021
Payments for retirement of long-term debt	(1,611,437)	(203,819)
Payments made on early extinguishment of debt	(7,100)	—
Proceeds from issuance of members' subordinated certificates	964	3,989
Payments for retirement of members' subordinated certificates	(4,279)	(23,340)
Payments for retirement of patronage capital	(46,953)	(44,667)
Repayments for membership fees, net	(2)	—
Net cash (used in) provided by financing activities	(3,739)	569,074
Net increase in cash, cash equivalents and restricted cash	4,108	103,217

Beginning cash, cash equivalents and restricted cash	238,824	188,421
Ending cash, cash equivalents and restricted cash	\$242,932	\$291,638

Supplemental disclosure of cash flow information:

Cash paid for interest	\$405,249	\$374,098
Cash paid for income taxes	30	152

See accompanying notes to condensed consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

NOTE 1—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company

National Rural Utilities Cooperative Finance Corporation (“CFC”) is a member-owned cooperative association incorporated under the laws of the District of Columbia in April 1969. CFC’s principal purpose is to provide its members with financing to supplement the loan programs of the Rural Utilities Service (“RUS”) of the United States Department of Agriculture (“USDA”). CFC makes loans to its rural electric members so they can acquire, construct and operate electric distribution systems, generation and transmission (“power supply”) systems 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.

Basis of Presentation and Use of Estimates

The accompanying unaudited interim condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”). The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts and related disclosures during the period. Management’s most significant estimates and assumptions involve determining the allowance for loan losses and the fair value of financial assets and liabilities. Actual results could differ from these estimates. We believe these financial statements reflect all adjustments of a normal, recurring nature that are, in the opinion of management, necessary for the fair presentation of the results for the interim period. The results of operations for interim periods are not necessarily indicative of results for the entire fiscal year. Certain reclassifications have been made to prior periods to conform to the current presentation.

The accompanying financial statements should be read in conjunction with the audited consolidated financial statements, and related notes thereto, included in CFC’s Annual Report on Form 10-K for the fiscal year ended May 31, 2018 (“2018 Form 10-K”). Refer to “Note 1—Summary of Significant Accounting Policies” in our 2018 Form 10-K for a discussion of our significant accounting policies.

Principles of Consolidation

The accompanying condensed consolidated financial statements include the accounts of CFC, variable interest entities (“VIEs”) where CFC is the primary beneficiary and subsidiary entities created and controlled by CFC to hold foreclosed assets. CFC did not have any entities that held foreclosed assets as of November 30, 2018 or May 31, 2018. All intercompany balances and transactions have been eliminated. National Cooperative Services Corporation (“NCSC”) and Rural Telephone Finance Cooperative (“RTFC”) are VIEs which are required to be consolidated by CFC. NCSC is a taxable member-owned cooperative that may provide financing to members of CFC, government or quasi-government entities which own electric utility systems that meet the Rural Electrification Act definition of “rural,” and for-profit and nonprofit entities that are owned, operated or controlled by, or provide significant benefits to certain members of CFC. RTFC is a taxable Subchapter T cooperative association that provides financing for its rural telecommunications members and their affiliates. Unless stated otherwise, references to “we,” “our” or “us” relate to CFC and its consolidated

entities.

Restricted Cash

Restricted cash, totaled \$16 million and \$8 million as of November 30, 2018 and May 31, 2018, respectively, and consists primarily of member funds held in escrow for certain specifically designated cooperative programs.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

Interest Income

The following table presents interest income, by interest-earning asset category, for the three and six months ended November 30, 2018 and 2017.

	Three Months Ended November 30,		Six Months Ended November 30,	
(Dollars in thousands)	2018	2017	2018	2017
Interest income by interest-earning asset type:				
Long-term fixed-rate loans ⁽¹⁾	\$253,340	\$248,926	\$505,141	\$498,290
Long-term variable-rate loans	10,066	6,097	19,447	11,960
Line of credit loans	11,752	8,588	23,385	17,295
TDR loans ⁽²⁾	211	222	429	448
Other income, net ⁽³⁾	(251)	(306)	(576)	(538)
Total loans	275,118	263,527	547,826	527,455
Cash, time deposits and investment securities	6,135	2,296	11,918	4,283
Total interest income	\$281,253	\$265,823	\$559,744	\$531,738

⁽¹⁾Includes loan conversion fees, which are generally deferred and recognized as interest income using the effective interest method.

⁽²⁾Troubled debt restructured ("TDR") loans.

⁽³⁾Consists of late payment fees, commitment fees and net amortization of deferred loan fees and loan origination costs.

Deferred income of \$62 million and \$66 million as of November 30, 2018 and May 31, 2018, respectively, consists primarily of deferred loan conversion fees totaling \$56 million and \$60 million, respectively. Deferred loan conversion fees are recognized in interest income using the effective interest method.

Interest Expense

The following table presents interest expense, by debt product type, for the three and six months ended November 30, 2018 and 2017.

	Three Months Ended November 30,		Six Months Ended November 30,	
(Dollars in thousands)	2018	2017	2018	2017
Interest expense by debt product type: ⁽¹⁾⁽²⁾				
Short-term borrowings	\$22,619	\$10,116	\$42,038	\$20,655
Medium-term notes	33,816	27,544	66,226	52,660
Collateral trust bonds	68,934	85,321	146,639	170,598
Guaranteed Underwriter Program notes payable	35,014	35,688	70,348	71,290
Farmer Mac notes payable	19,697	11,947	40,808	23,437
Other notes payable	322	391	644	781

Subordinated deferrable debt	9,417	9,417	18,834	18,833
Subordinated certificates	14,347	14,746	28,860	29,647
Total interest expense	\$204,166	\$195,170	\$414,397	\$387,901

⁽¹⁾ Includes amortization of debt discounts and debt issuance costs, which are generally deferred and recognized as interest expense using the effective interest method. Issuance costs related to dealer commercial paper, however, are recognized as interest expense immediately as incurred.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

⁽²⁾ Includes fees related to funding arrangements, such as up-front fees paid to banks participating in our committed bank revolving line of credit agreements. Depending on the nature of the fee, amounts may be deferred and recognized as interest expense ratably over the term of the arrangement or recognized immediately as incurred.

Recent Accounting Changes and Other Developments

Accounting Standards Adopted in Fiscal Year 2019

Statement of Cash Flows—Restricted Cash

In November 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2016-18, Statement of Cash Flows—Restricted Cash, which addresses the presentation of restricted cash in the statement of cash flows. The guidance requires that the statement of cash flows explain the change in the beginning-of-period and end-of-period total of cash, cash equivalents and restricted cash. Under previous guidance, we were required to explain the total change in cash and cash equivalents during the period. We adopted this guidance on June 1, 2018 on a retrospective basis. We made corresponding changes on our consolidated balance sheet to present a total for cash and cash equivalents and restricted cash.

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

In January 2016, FASB issued ASU 2016-01, Financial Instruments-Overall: Recognition and Measurement of Financial Assets and Financial Liabilities, which amends certain aspects of the recognition, measurement, presentation and disclosure of certain financial instruments, including equity investments and liabilities measured at fair value under the fair value option. Under this guidance, investments in equity securities must be measured at fair value through earnings, with certain exceptions, and entities can no longer classify investments in equity securities as available for sale or trading. We adopted this guidance on June 1, 2018 on a modified retrospective basis and recorded a cumulative-effect adjustment that increased retained earnings by \$9 million as a result of the transition adjustment to reclassify unrealized gains related to our equity securities from accumulated other comprehensive income (“AOCI”) to retained earnings. As a result of adopting this guidance, our investments in equity securities are no longer classified as available for sale and unrealized holding gains and losses are recorded in earnings. Previously, our equity securities were classified as available for sale and unrealized holding gains and losses were recorded in other comprehensive income.

Revenue from Contracts with Customers

In May 2014, FASB issued ASU 2014-09, Revenue from Contracts with Customers, which modifies the guidance used to recognize revenue from contracts with customers for transfers of goods or services and transfers of nonfinancial assets. This guidance applies to all contracts with customers to provide goods or services in the ordinary course of business, except for certain contracts specifically excluded from the scope, including financial instruments, guarantees, insurance contracts and leases. As a financial institution, substantially all of our revenue is in the form of interest income derived from financial instruments, primarily our investments in loans and securities. We adopted this guidance on June 1, 2018. Given the scope exception for financial instruments, the adoption of the guidance did not have an impact on our condensed consolidated financial statements and does not affect our accounting.

Accounting Standards Issued But Not Yet Adopted

Fair Value Measurement—Changes to the Disclosure Requirements for Fair Value Measurement

In August 2018, FASB issued ASU 2018-13, Fair Value Measurement—Changes to the Disclosure Requirements for Fair Value Measurement, which eliminates, adds and modifies certain disclosure requirements for fair value measurements as part of its disclosure framework project. The guidance is effective for public entities for fiscal years beginning after December 15, 2019, including interim periods within those years. Early adoption is permitted in any interim period or fiscal

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

year before the effective date. The guidance is effective for us beginning June 1, 2020. We do not expect that the adoption of this guidance will have a material impact on our consolidated financial statements.

Derivatives and Hedging—Targeted Improvements to Accounting for Hedging Activities

In August 2017, FASB issued ASU 2017-12, Derivatives and Hedging—Targeted Improvements to Accounting for Hedging Activities, which expands the types of risk management strategies that qualify for hedge accounting treatment to more closely align the results of hedge accounting with the economics of certain risk management activities and simplifies certain hedge documentation and assessment requirement. It also eliminates the concept of separately recording hedge ineffectiveness and expands disclosure requirements. The guidance is effective for public entities for fiscal years beginning after December 15, 2018, including interim periods within those years. Early adoption is permitted in any interim period or fiscal year before the effective date. The guidance is effective for us beginning June 1, 2019. Hedge accounting is elective, and we currently apply hedge accounting on a limited basis, specifically when we enter into treasury rate lock agreements. If we continue to elect not to apply hedge accounting to our interest rate swaps, the adoption of the new guidance will not have a material impact on our consolidated financial statements.

Receivables—Nonrefundable Fees and Other Cost

In March 2017, FASB issued ASU 2017-08, Receivables—Nonrefundable Fees and Other Costs, which shortens the amortization period for the premium on certain callable debt securities to the earliest call date rather the maturity date. The guidance is applicable to any individual debt security, purchased at a premium, with an explicit and noncontingent call feature with a fixed price on a preset date. The guidance does not impact the accounting for purchased callable debt securities held at a discount; the discount will continue to amortize to the maturity date. The guidance is effective for public entities in fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. This update is effective for us beginning June 1, 2019. Adoption of the guidance requires modified retrospection transition as of the beginning of the period of adoption through a cumulative-effect adjustment to retained earnings. We do not expect that the adoption of this guidance will have a material impact on our consolidated financial statements.

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

In June 2016, FASB issued ASU 2016-13, Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments, which replaces the existing incurred loss impairment model and establishes a single allowance framework based on a current expected credit loss model for financial assets carried at amortized cost, including loans and held-to-maturity debt securities. The current expected loss model requires an entity to estimate the credit losses expected over the life of the credit exposure upon initial recognition of that exposure when the financial asset is originated or acquired, which will generally result in earlier recognition of credit losses. The guidance also amends the other-than-temporary model for available-for-sale debt securities by requiring the use of an allowance, rather than directly reducing the carrying value of the security. The new guidance also requires expanded credit quality disclosures. The new standard is effective for fiscal years and interim periods within those fiscal years, beginning after December 15, 2019. This update is effective for us beginning June 1, 2020. While early adoption is permitted for us beginning in the first quarter of fiscal year 2020, we do not expect to elect that option. We are continuing to evaluate

the impact of the guidance on our consolidated financial statements, including assessing and evaluating assumptions and models to estimate losses. We do not expect to early adopt this guidance. Upon adoption, we will be required to record a cumulative-effect adjustment to retained earnings. The impact on our consolidated financial statements from the adoption of this new guidance will depend on our portfolio composition and credit quality at the date of adoption as well as forecasts at that time.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

NOTE 2—VARIABLE INTEREST ENTITIES

NCSC and RTFC meet the definition of a VIE because they do not have sufficient equity investment at risk to finance their activities without financial support. CFC is the primary source of funding for NCSC and the sole source of funding for RTFC. Under the terms of management agreements, CFC manages the business operations of NCSC and RTFC. CFC also unconditionally guarantees full indemnification for any loan losses of NCSC and RTFC pursuant to guarantee agreements with each company. CFC earns management and guarantee fees from its agreements with NCSC and RTFC.

NCSC and RTFC creditors have no recourse against CFC in the event of a default by NCSC and RTFC, unless there is a guarantee agreement under which CFC has guaranteed NCSC or RTFC debt obligations to a third party. The following table provides information on incremental consolidated assets and liabilities of VIEs included in CFC's condensed consolidated financial statements, after intercompany eliminations, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
Total loans outstanding	\$1,122,717	\$1,149,574
Other assets	16,512	10,280
Total assets	\$1,139,229	\$1,159,854
Long-term debt	\$8,000	\$8,000
Other liabilities	39,759	33,923
Total liabilities	\$47,759	\$41,923

The following table provides information on CFC's credit commitments to NCSC and RTFC, and its potential exposure to loss as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
CFC credit commitments	\$5,500,000	\$5,500,000
Outstanding commitments:		
Borrowings payable to CFC ⁽¹⁾	1,089,764	1,116,465
Credit enhancements:		
CFC third-party guarantees	17,073	12,005
Other credit enhancements	13,757	14,655
Total credit enhancements ⁽²⁾	30,830	26,660
Total outstanding commitments	1,120,594	1,143,125
CFC available credit commitments	\$4,379,406	\$4,356,875

⁽¹⁾ Borrowings payable to CFC are eliminated in consolidation.

⁽²⁾ Excludes interest due on these instruments.

CFC loans to NCSC and RTFC are secured by all assets and revenue of NCSC and RTFC. CFC's maximum potential exposure, including interest due, for the credit enhancements totaled \$32 million as of November 30, 2018. The maturities for obligations guaranteed by CFC extend through 2031.

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NOTE 3—INVESTMENT SECURITIES

We currently hold investments in equity and debt securities. We record purchases and sales of our investment securities on a trade-date basis. The accounting and measurement framework for investment securities differs depending on the security type and the classification.

Equity Securities

We previously had investments in equity securities that were classified as available for sale as of May 31, 2018. The unrealized gains and losses on these securities were recorded in other comprehensive income. Effective with our June 1, 2018 adoption of the financial instrument accounting standard on the recognition and measurement of financial assets and financial liabilities, unrealized gains and losses on equity securities are required to be recorded in earnings. The following table presents the fair value of our equity securities, all of which had readily determinable fair values, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
Equity securities at fair value:		
Farmer Mac—non-cumulative preferred stock	\$ 82,047	\$ 82,352
Farmer Mac—class A common stock	4,941	6,980
Total equity securities at fair value	\$ 86,988	\$ 89,332

We recorded unrealized losses on our investments in equity securities of \$1 million and \$2 million in earnings during the three and six months ended November 30, 2018, respectively. These unrealized losses are presented in other expenses on our condensed consolidated statements of income. We recorded unrealized gains on our investments in equity securities of less than \$1 million and unrealized losses on our investments in equity securities of \$1 million in other comprehensive income during the three and six months ended November 30, 2017, respectively. For additional information on our investments in equity securities, see “Note 1—Summary of Significant Accounting Policies” and “Note 10—Equity—Accumulated Other Comprehensive Income.”

Debt Securities

We currently classify and account for our investments in debt securities as held to maturity (“HTM”) because we have the positive intent and ability to hold these securities to maturity. If we acquire debt securities that we may sell prior to maturity in response to changes in our investment strategy, liquidity needs, credit risk mitigating considerations, market risk profile or for other reasons, we would classify such securities as available for sale. We report debt securities classified as HTM on our condensed consolidated balance sheets at amortized cost. Interest income, including amortization of premiums and accretion of discounts, is generally recognized over the contractual life of the securities based on the effective yield method.

Pursuant to our investment policy guidelines, all fixed-income debt securities, at the time of purchase, must be rated at least investment grade and on stable outlook based on external credit ratings from at least two of the leading global credit rating agencies, when available, or the corresponding equivalent, when not available. Securities rated

investment grade, that is those rated Baa3 or higher by Moody's Investors Service ("Moody's") or BBB- or higher by S&P or BBB- or higher by Fitch Ratings Inc. ("Fitch"), are generally considered by the rating agencies to be of lower credit risk than non-investment grade securities.

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Amortized Cost and Fair Value of Debt Securities

The following tables present the amortized cost and fair value of our investment securities and the corresponding gross unrealized gains and losses, by classification category and major security type, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities held to maturity:				
Certificates of deposit	\$1,000	\$ —	\$ —	\$1,000
Commercial paper	12,858	—	(1)	12,857
U.S. agency debt securities	2,823	2	(1)	2,824
Corporate debt securities	470,536	21	(7,702)	462,855
Commercial MBS:				
Agency	7,313	5	(15)	7,303
Non-agency	3,453	1	(11)	3,443
Total commercial MBS	10,766	6	(26)	10,746
U.S. state and municipality debt securities	9,612	17	(10)	9,619
Foreign government debt securities	1,247	1	—	1,248
Other ABS ⁽¹⁾	49,229	1	(263)	48,967
Total debt securities held to maturity	\$558,071	\$ 48	\$ (8,003)	\$550,116

(Dollars in thousands)	May 31, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities held to maturity:				
Certificates of deposit	\$5,148	\$ —	\$ —	\$5,148
Commercial paper	9,134	—	—	9,134
U.S. agency debt securities	2,000	16	—	2,016
Corporate debt securities	455,721	714	(4,595)	451,840
Commercial MBS:				
Agency	7,024	63	—	7,087
Non-agency	3,453	3	(3)	3,453
Total commercial MBS	10,477	66	(3)	10,540
U.S. state and municipality debt securities	2,147	24	—	2,171
Foreign government debt securities	1,241	9	—	1,250
Other ABS ⁽¹⁾	34,651	11	(215)	34,447
Total debt securities held to maturity	\$520,519	\$ 840	\$ (4,813)	\$516,546

⁽¹⁾Consists primarily of securities backed by auto lease loans, equipment-backed loans, auto loans and credit card loans.

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Debt Securities in Gross Unrealized Loss Position

An unrealized loss exists when the fair value of an individual security is less than its amortized cost basis. The following table presents the fair value and gross unrealized losses for debt securities in a gross loss position, aggregated by security type, and the length of time the securities have been in a continuous unrealized loss position as of November 30, 2018 and May 31, 2018. The securities are segregated between investments that have been in a continuous unrealized loss position for less than 12 months and 12 months or more based on the point in time that the fair value declined below the amortized cost basis.

(Dollars in thousands)	November 30, 2018					
	Unrealized Loss Position Less than 12 Months		Unrealized Loss Position 12 Months or Longer			Total
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	
Debt securities held to maturity:						
Commercial paper	\$2,164	\$ (1)	\$—	\$ —	\$2,164	\$ (1)
U.S. agency debt securities	391	(1)	—	—	391	(1)
Corporate bonds	286,614	(3,234)	154,964	(4,468)	441,578	(7,702)
Commercial MBS:						
Agency	3,700	(15)	—	—	3,700	(15)
Non-agency	1,446	(11)	—	—	1,446	(11)
Total commercial MBS	5,146	(26)	—	—	5,146	(26)
U.S. state and municipality debt securities	3,917	(10)	—	—	3,917	(10)
Other ABS ⁽¹⁾	29,180	(98)	17,982	(165)	47,162	(263)
Total investment securities	\$327,412	\$ (3,370)	\$172,946	\$ (4,633)	\$500,358	\$ (8,003)
(Dollars in thousands)	May 31, 2018					
	Unrealized Loss Position Less than 12 Months		Unrealized Loss Position 12 Months or Longer			Total
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	
Held to maturity:						
Corporate debt securities	\$280,139	\$ (4,595)	\$ —	\$ —	\$280,139	\$ (4,595)
Commercial MBS, non-agency	1,451	(3)	—	—	1,451	(3)
Other ABS ⁽¹⁾	27,012	(215)	—	—	27,012	(215)
Total investment securities	\$308,602	\$ (4,813)	\$ —	\$ —	\$308,602	\$ (4,813)

⁽¹⁾Consists primarily of securities backed by auto lease loans, equipment-backed loans, auto loans and credit card loans.

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Other-Than-Temporary Impairment

We conduct periodic reviews of all securities with unrealized losses to evaluate whether the impairment is other than temporary. The number of individual securities in an unrealized loss position was 431 as of November 30, 2018. We have assessed each security with gross unrealized losses included in the above table for credit impairment. As part of that assessment, we concluded that the unrealized losses are driven by changes in market interest rates rather than by adverse changes in the credit quality of these securities. Based on our assessment, we expect to recover the entire amortized cost basis of these securities, as we do not intend to sell any of the securities and have concluded that it is more likely than not that we will not be required to sell prior to recovery of the amortized cost basis. Accordingly, we currently consider the impairment of these securities to be temporary.

Contractual Maturity and Yield

The following table presents, by major security type, the remaining contractual maturity based on amortized cost and fair value of our HTM investment securities as of November 30, 2018 and May 31, 2018. Because borrowers may have the right to call or prepay certain obligations, the expected maturities of our investments may differ from the scheduled contractual maturities presented below.

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	November 30, 2018					
(Dollars in thousands)	Due in 1 Year or Less	Due > 1 Year through 5 Years	Due > 5 Years through 10 Years	Due >10 Years	Total	
Amortized cost:						
Certificates of deposit	\$ 1,000	\$—	\$—	\$—	\$ 1,000	
Commercial paper	12,858	—	—	—	12,858	
U.S. agency debt securities	—	2,672	151	—	2,823	
Corporate debt securities	25,428	403,664	41,444	—	470,536	
Commercial MBS:						
Agency	—	342	6,971	—	7,313	
Non-agency	—	—	—	3,453	3,453	
Total commercial MBS	—	342	6,971	3,453	10,766	
U.S. state and municipality debt securities	—	5,484	4,128	—	9,612	
Foreign government debt securities	—	1,247	—	—	1,247	
Other ABS ⁽¹⁾	993	45,791	2,445	—	49,229	
Total	\$40,279	\$459,200	\$55,139	\$3,453	\$558,071	
Fair value:						
Certificates of deposit	\$ 1,000	\$—	\$—	\$—	\$ 1,000	
Commercial paper	12,857	—	—	—	12,857	
U.S. agency debt securities	—	2,672	152	—	2,824	
Corporate debt securities	25,247	396,593	41,015	—	462,855	
Commercial MBS:						
Agency	—	340	6,963	—	7,303	
Non-Agency	—	—	—	3,443	3,443	
Total Commercial MBS	—	340	6,963	3,443	10,746	
U.S. State and Municipality Debt Securities	—	5,475	4,144	—	9,619	
Foreign Government Debt Securities	—	1,248	—	—	1,248	
Other ABS ⁽¹⁾	991	45,532	2,444	—	48,967	
Total	\$40,095	\$451,860	\$54,718	\$3,443	\$550,116	
Weighted average coupon ⁽²⁾	1.79	% 2.98	% 3.58	% 3.13	% 2.95	%

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(Dollars in thousands)	May 31, 2018					Total
	Due in 1 Year or Less	Due > 1 Year through 5 Years	Due > 5 Years through 10 Years	Due >10 Years		
Amortized cost:						
Certificates of deposit	\$5,148	\$—	\$—	\$—		\$5,148
Commercial paper	9,134	—	—	—		9,134
U.S. agency debt securities	—	2,000	—	—		2,000
Corporate debt securities	9,111	377,384	69,226	—		455,721
Commercial MBS:						
Agency	—	—	7,024	—		7,024
Non-Agency	—	—	—	3,453		3,453
Total Commercial MBS	—	—	7,024	3,453		10,477
U.S. State and Municipality Debt Securities	—	—	2,147	—		2,147
Foreign Government Debt Securities	—	1,241	—	—		1,241
Other ABS ⁽¹⁾	—	33,357	1,294	—		34,651
Total	\$23,393	\$413,982	\$79,691	\$3,453		\$520,519
Fair value:						
Certificates of deposit	\$5,148	\$—	\$—	\$—		\$5,148
Commercial paper	9,134	—	—	—		9,134
U.S. agency debt securities	—	2,016	—	—		2,016
Corporate debt securities	9,056	373,284	69,500	—		451,840
Commercial MBS:						
Agency	—	—	7,087	—		7,087
Non-Agency	—	—	—	3,453		3,453
Total Commercial MBS	—	—	7,087	3,453		10,540
U.S. State and Municipality Debt Securities	—	—	2,171	—		2,171
Foreign Government Debt Securities	—	1,250	—	—		1,250
Other ABS ⁽¹⁾	—	33,157	1,290	—		34,447
Total	\$23,338	\$409,707	\$80,048	\$3,453		\$516,546
Weighted average coupon ⁽²⁾	1.81	% 2.84	% 3.60	% 2.74	% 2.91	%

⁽¹⁾Consists primarily of securities backed by auto lease loans, equipment-backed loans, auto loans and credit card loans.

⁽²⁾Calculated based on the weighted average coupon rate, which excludes the impact of amortization of premium and accretion of discount.

The average contractual maturity and weighted average coupon of our HTM investment securities was three years and 2.95%, respectively, as of November 30, 2018. The average credit rating of these securities, based on the equivalent lowest credit rating by Moody's, S&P and Fitch was A2, A and A, respectively, as of November 30, 2018.

Realized Gains and Losses

We did not sell any of our investment securities during the three months ended November 30, 2018, and therefore have not recorded any realized gains or losses.

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NOTE 4—LOANS

Loans, which are classified as held for investment, are carried at the outstanding unpaid principal balance net of unamortized loan origination costs. The following table presents the outstanding principal balance of loans to members, including deferred loan origination costs, and unadvanced loan commitments by loan type and member class, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018		May 31, 2018	
	Loans Outstanding	Unadvanced Commitments ⁽¹⁾	Loans Outstanding	Unadvanced Commitments ⁽¹⁾
Loan type:				
Long-term loans:				
Fixed rate	\$22,713,588	\$ —	\$22,696,185	\$ —
Variable rate	1,077,971	5,289,612	1,039,491	4,952,834
Total long-term loans	23,791,559	5,289,612	23,735,676	4,952,834
Lines of credit	1,491,394	7,854,452	1,431,818	7,692,784
Total loans outstanding	25,282,953	13,144,064	25,167,494	12,645,618
Deferred loan origination costs	11,222	—	11,114	—
Loans to members	\$25,294,175	\$ 13,144,064	\$25,178,608	\$ 12,645,618
Member class:				
CFC:				
Distribution	\$19,812,973	\$ 8,531,846	\$19,551,511	\$ 8,188,376
Power supply	4,264,713	3,592,293	4,397,353	3,407,095
Statewide and associate	82,549	130,909	69,055	128,025
Total CFC	24,160,235	12,255,048	24,017,919	11,723,496
NCSC	767,225	597,325	786,457	624,663
RTFC	355,493	291,691	363,118	297,459
Total loans outstanding	25,282,953	13,144,064	25,167,494	12,645,618
Deferred loan origination costs	11,222	—	11,114	—
Loans to members	\$25,294,175	\$ 13,144,064	\$25,178,608	\$ 12,645,618

⁽¹⁾The interest rate on unadvanced loan commitments is not set until an advance is made; therefore, all long-term unadvanced loan commitments are reported as variable-rate. However, the borrower may select either a fixed or a variable rate when an advance on a commitment is made.

Unadvanced Loan Commitments

Unadvanced loan commitments represent approved and executed loan contracts for which funds have not been advanced to borrowers. The following table summarizes the available balance under unadvanced loan commitments as of November 30, 2018 and the related maturities by fiscal year and thereafter by loan type:

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	Available	Notional Maturities of Unadvanced Loan Commitments					
(Dollars in thousands)	Balance	2019	2020	2021	2022	2023	Thereafter
Line of credit loans	\$7,854,452	\$302,927	\$3,960,406	\$908,973	\$755,133	\$1,339,586	\$587,427
Long-term loans	5,289,612	417,526	545,467	688,422	1,636,893	1,193,023	808,281
Total	\$13,144,064	\$720,453	\$4,505,873	\$1,597,395	\$2,392,026	\$2,532,609	\$1,395,708

Unadvanced line of credit commitments accounted for 60% of total unadvanced loan commitments as of November 30, 2018, while unadvanced long-term loan commitments accounted for 40% of total unadvanced loan commitments. Unadvanced line of credit commitments are typically revolving facilities for periods not to exceed five years. Unadvanced line of credit commitments generally serve as supplemental back-up liquidity to our borrowers. 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 we are obligated to fund the facility where a material adverse change exists.

Our unadvanced long-term loan commitments have a five-year draw period under which a borrower may advance funds prior to the expiration of the commitment. We expect that the majority of the long-term unadvanced loan commitments of \$5,290 million will be advanced prior to the expiration of the commitment.

Because we historically have experienced a very low utilization rate on line of credit loan facilities, which account for the majority of our total unadvanced loan commitments, we believe the unadvanced loan commitment total of \$13,144 million as of November 30, 2018 is not necessarily representative of our future funding cash requirements.

Unadvanced Loan Commitments—Conditional

The majority of our line of credit commitments and all of our unadvanced long-term loan commitments include material adverse change clauses. Unadvanced loan commitments subject to material adverse change clauses totaled \$10,090 million and \$9,789 million as of November 30, 2018 and May 31, 2018, respectively. Prior to making an advance on these facilities, we confirm that there has been no material adverse change in the business or condition, financial or otherwise, of the borrower since the time the loan was approved and confirm that the borrower is currently in compliance with loan terms and conditions. In some cases, the borrower's access to the full amount of the facility is further constrained by the designated purpose, imposition of borrower-specific restrictions or by additional conditions that must be met prior to advancing funds.

Unadvanced Loan Commitments—Unconditional

Unadvanced loan commitments not subject to material adverse change clauses at the time of each advance consisted of unadvanced committed lines of credit totaling \$3,054 million and \$2,857 million as of November 30, 2018 and May 31, 2018, respectively. As such, we are required to advance amounts on these committed facilities as long as the borrower is in compliance with the terms and conditions of the facility.

The following table summarizes the available balance under unconditional committed lines of credit, and the related maturities by fiscal year and thereafter, as of November 30, 2018.

Available

	Balance	Notional Maturities of Unconditional Committed Lines of Credit					
(Dollars in thousands)		2019	2020	2021	2022	2023	Thereafter
Committed lines of credit	\$3,053,902	\$110,000	\$347,582	\$479,348	\$455,400	\$1,228,176	\$433,396

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Loan Sales

We transfer, from time to time, loans to third parties under our direct loan sale program. We did not have any loan sales during the six months ended November 30, 2018. We sold CFC loans with outstanding balances totaling \$110 million, at par for cash, during the six months ended November 30, 2017. We recorded immaterial losses upon the sale of these loans, attributable to the unamortized deferred loan origination costs associated with the transferred loans.

Pledging of Loans

We are required to pledge eligible mortgage notes in an amount at least equal to the outstanding balance of our secured debt. The following table summarizes our loans outstanding as collateral pledged to secure our collateral trust bonds, Clean Renewable Energy Bonds, notes payable to Farmer Mac and notes payable under the Guaranteed Underwriter Program of the USDA (“Guaranteed Underwriter Program”) and the amount of the corresponding debt outstanding as of November 30, 2018 and May 31, 2018. See “Note 6—Short-Term Borrowings” and “Note 7—Long-Term Debt” for information on our borrowings.

(Dollars in thousands)	November 30, 2018	May 31, 2018
Collateral trust bonds:		
2007 indenture:		
Distribution system mortgage notes	\$ 8,299,400	\$8,643,344
RUS-guaranteed loans qualifying as permitted investments	137,839	140,680
Total pledged collateral	\$ 8,437,239	\$8,784,024
Collateral trust bonds outstanding	7,322,711	7,697,711
1994 indenture:		
Distribution system mortgage notes	\$ 48,929	\$243,418
Collateral trust bonds outstanding	40,000	220,000
Farmer Mac:		
Distribution and power supply system mortgage notes	\$ 3,177,761	\$3,331,775
Notes payable outstanding	2,763,482	2,891,496
Clean Renewable Energy Bonds Series 2009A:		
Distribution and power supply system mortgage notes	\$ 13,755	\$12,615
Cash	1,087	415
Total pledged collateral	\$ 14,842	\$13,030
Notes payable outstanding	11,556	11,556
Federal Financing Bank:		
Distribution and power supply system mortgage notes	\$ 5,596,619	\$5,772,750
Notes payable outstanding	4,925,542	4,856,375

Credit Concentration

As a tax-exempt, member-owned finance cooperative, CFC's principal focus is to provide funding to its rural electric utility cooperative members to assist them in acquiring, constructing and operating electric distribution systems, power supply systems and related facilities. We serve electric and telecommunications members throughout the United States and its

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territories, including 50 states, the District of Columbia, American Samoa and Guam. Our consolidated membership totaled 1,449 members and 215 associates as of November 30, 2018. Texas had the largest concentration of outstanding loans to borrowers in any one state, with approximately 15% of total loans outstanding as of both November 30, 2018 and May 31, 2018. Because we lend primarily to our rural electric utility cooperative members, we have a loan portfolio subject to single-industry and single-obligor concentration risks.

Loans outstanding to electric utility organizations represented approximately 99% of total loans outstanding as of November 30, 2018, unchanged from May 31, 2018. The remaining loans outstanding in our portfolio were to RTFC members, affiliates and associates in the telecommunications industry. The combined exposure of loans and guarantees outstanding for our 20 largest borrowers was 22% and 23% as of November 30, 2018 and May 31, 2018, respectively. The 20 largest borrowers consisted of nine distribution systems, 10 power supply systems and one NCSC associate member as of both November 30, 2018 and May 31, 2018. The largest total outstanding exposure to a single borrower or controlled group represented approximately 2% of total loans and guarantees outstanding as of both November 30, 2018 and May 31, 2018.

As part of our strategy in managing our credit exposure, we entered into a long-term standby purchase commitment agreement with Farmer Mac during fiscal year 2016. Under this agreement, we may designate certain long-term loans to be covered under the commitment, subject to approval by Farmer Mac, and in the event any such loan later goes into payment default for at least 90 days, upon request by us, Farmer Mac must purchase such loan at par value. The aggregate unpaid principal balance of designated and Farmer Mac approved loans was \$643 million and \$660 million as of November 30, 2018 and May 31, 2018, respectively. Under the agreement, we are required to pay Farmer Mac a monthly fee based on the unpaid principal balance of loans covered under the purchase commitment. No loans had been put to Farmer Mac for purchase, pursuant to this agreement, as of November 30, 2018. Also, we had long-term loans totaling \$158 million and \$161 million as of November 30, 2018 and May 31, 2018, respectively, guaranteed by RUS.

Credit Quality

Assessing the overall credit quality of our loan portfolio and measuring our credit risk is an ongoing process that involves tracking payment status, charge-offs, troubled debt restructurings, nonperforming and impaired loans, the internal risk ratings of our borrowers and other indicators of credit risk. We monitor and subject each borrower and loan facility in our loan portfolio to an individual risk assessment based on quantitative and qualitative factors. Internal risk ratings and payment status trends are indicators, among others, of the probability of borrower default and level of credit risk in our loan portfolio.

Borrower Risk Ratings

As part of our credit risk management process, we monitor and evaluate each borrower and loan in our loan portfolio and assign internal borrower and loan facility risk ratings based on quantitative and qualitative assessments. Our borrower risk ratings are intended to assess probability of default. Each risk rating is reassessed annually following the receipt of the borrower's audited financial statements; however, interim risk-rating downgrades or upgrades may occur as a result of significant developments or trends. Our borrower risk ratings are intended to align with banking regulatory agency credit risk rating definitions of pass and criticized classifications, with criticized divided between

special mention, substandard and doubtful. Pass ratings reflect relatively low probability of default, while criticized ratings have a higher probability of default. Following is a description of each rating category.

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

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

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

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Doubtful: Borrowers that have a well-defined credit weakness or weaknesses that make full collection of principal and interest, on the basis of currently known facts, conditions and collateral values, highly questionable and improbable.

Loans to borrowers in the pass, special mention and substandard categories are generally considered not to be individually impaired and are included in the loan pools for determining the collective reserve component of the allowance for loan losses. Loans to borrowers in the doubtful category are considered to be impaired and are therefore individually assessed for impairment in determining the specific reserve component of the allowance for loan losses.

The following tables present total loans outstanding, by member class and borrower risk rating category, based on the risk ratings used in the estimation of our allowance for loan losses as of November 30, 2018 and May 31, 2018.

November 30, 2018

(Dollars in thousands)	Pass	Special Mention	Substandard	Doubtful	Total
CFC:					
Distribution	\$ 19,683,219	\$ 6,364	\$ 123,390	\$ —	\$ 19,812,973
Power supply	4,216,130	—	48,583	—	4,264,713
Statewide and associate	82,549	—	—	—	82,549
CFC total	23,981,898	6,364	171,973	—	24,160,235
NCSC	767,225	—	—	—	767,225
RTFC	349,651	—	5,842	—	355,493
Total loans outstanding	\$ 25,098,774	\$ 6,364	\$ 177,815	\$ —	\$ 25,282,953

May 31, 2018

(Dollars in thousands)	Pass	Special Mention	Substandard	Doubtful	Total
CFC:					
Distribution	\$ 19,429,121	\$ 6,853	\$ 115,537	\$ —	\$ 19,551,511
Power supply	4,348,328	—	49,025	—	4,397,353
Statewide and associate	69,055	—	—	—	69,055
CFC total	23,846,504	6,853	164,562	—	24,017,919
NCSC	786,457	—	—	—	786,457
RTFC	356,503	523	6,092	—	363,118
Total loans outstanding	\$ 24,989,464	\$ 7,376	\$ 170,654	\$ —	\$ 25,167,494

We had loans to one electric distribution cooperative borrower and its subsidiary totaling \$172 million and \$165 million as of November 30, 2018 and May 31, 2018, respectively, that were classified as substandard. The electric distribution cooperative owns and operates a distribution and transmission system and is in the early stages of deploying retail broadband service. The borrower is currently experiencing financial difficulties due to recent net losses and weak cash flows. The borrower and its subsidiary are current with regard to all principal and interest payments and have never been delinquent. The borrower operates in a territory that is not rate-regulated and has the ability to adjust its electric rates to cover operating costs and service debt. Of the outstanding amount, all but \$17 million and \$7 million was secured under our typical collateral requirements for long-term loan advances as of

November 30, 2018 and May 31, 2018, respectively. We currently expect to collect all principal and interest amounts due from the borrower and its subsidiary. Accordingly, the loans outstanding to this borrower and its subsidiary were not deemed to be impaired as of either November 30, 2018 or May 31, 2018.

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Payment Status of Loans

The tables below present the payment status of loans outstanding by member class as of November 30, 2018 and May 31, 2018. As indicated in the table, we did not have any past due loans as of either November 30, 2018 or May 31, 2018.

		November 30, 2018					
				90			
		30-89	Days	Total	Total		
(Dollars in thousands)	Current	Days	or	Past	Financing		
		Past	More	Due	Receivables	Nonaccrual	
		Due	Past	Due		Loans	
			Due				
			(1)				
CFC:							
Distribution	\$ 19,812,973	\$ —	\$ —	\$ —	\$ 19,812,973	\$	—
Power supply	4,264,713	—	—	—	4,264,713	—	
Statewide and associate	82,549	—	—	—	82,549	—	
CFC total	24,160,235	—	—	—	24,160,235	—	
NCSC	767,225	—	—	—	767,225	—	
RTFC	355,493	—	—	—	355,493	—	
Total loans outstanding	\$ 25,282,953	\$ —	\$ —	\$ —	\$ 25,282,953	\$	—
Percentage of total loans	100.00	% —%	—%	—%	100.00	% —	%

		May 31, 2018					
				90			
		30-89	Days	Total	Total		
(Dollars in thousands)	Current	Days	or	Past	Financing		
		Past	More	Due	Receivables	Nonaccrual	
		Due	Past	Due		Loans	
			(1)				
CFC:							
Distribution	\$19,551,511	\$ —	\$ —	\$ —	\$19,551,511	\$	—
Power supply	4,397,353	—	—	—	4,397,353	—	
Statewide and associate	69,055	—	—	—	69,055	—	
CFC total	24,017,919	—	—	—	24,017,919	—	
NCSC	786,457	—	—	—	786,457	—	
RTFC	363,118	—	—	—	363,118	—	
Total loans outstanding	\$25,167,494	\$ —	\$ —	\$ —	\$25,167,494	\$	—
Percentage of total loans	100.00	% —%	—%	—%	100.00	% —	%

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

Troubled Debt Restructurings

We did not have any loans modified as TDRs during the six months ended November 30, 2018. The following table provides a summary of loans modified as TDRs in prior periods, the performance status of these loans and the unadvanced loan commitments related to the TDR loans, by member class, as of November 30, 2018 and May 31, 2018.

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(Dollars in thousands)	November 30, 2018			May 31, 2018		
	Loans Outstanding	% of Total Loans	Unadvanced Commitments	Loans Outstanding	% of Total Loans	Unadvanced Commitments
TDR loans:						
Performing TDR loans:						
CFC/Distribution	\$6,261	0.03 %	\$ —	\$6,507	0.03 %	\$ —
RTFC	5,842	0.02	—	6,092	0.02	—
Total performing TDR loans	12,103	0.05	—	12,599	0.05	—
Total TDR loans	\$12,103	0.05 %	\$ —	\$12,599	0.05 %	\$ —

We did not have any TDR loans classified as nonperforming as of November 30, 2018 or May 31, 2018. TDR loans classified as performing as of November 30, 2018 and May 31, 2018 were performing in accordance with the terms of their respective restructured loan agreement and on accrual status as of the respective reported dates. One borrower with a TDR loan also had a line of credit facility, restricted for fuel purchases only, totaling \$6 million as of both November 30, 2018 and May 31, 2018. The outstanding amount under this facility totaled less than \$1 million as of both November 30, 2018 and May 31, 2018, and was classified as performing as of each respective date.

Nonperforming Loans

In addition to TDR loans that may be classified as nonperforming, we also may have nonperforming loans that have not been modified as a TDR. We did not have any loans classified as nonperforming as of either November 30, 2018 or May 31, 2018.

We had no foregone interest income for loans on nonaccrual status during the three and six months ended November 30, 2018 and 2017.

Impaired Loans

The following table provides information on loans classified as individually impaired loans as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018		May 31, 2018	
	Recorded Investment	Related Allowance	Recorded Investment	Related Allowance
With no specific allowance recorded:				
CFC	\$6,261	\$ —	\$6,507	\$ —
With a specific allowance recorded:				
RTFC	5,842	1,150	6,092	1,198
Total impaired loans	\$12,103	\$ 1,150	\$12,599	\$ 1,198

The following table presents, by company, the average recorded investment for individually impaired loans and the interest income recognized on these loans for the three and six months ended November 30, 2018 and 2017.

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	Three Months Ended			
	November 30,			
	2018	2017	2018	2017
	Average		Interest	
(Dollars in thousands)	Recorded		Income	
	Investment		Recognized	
CFC	\$6,261	\$6,507	\$ 137	\$ 142
RTFC	5,923	6,423	74	80
Total impaired loans	\$12,184	\$12,930	\$ 211	\$ 222
	Six Months Ended November			
	30,			
	2018	2017	2018	2017
	Average		Interest	
(Dollars in thousands)	Recorded		Income	
	Investment		Recognized	
CFC	\$6,383	\$6,541	\$ 279	\$ 286
RTFC	5,986	6,486	150	162
Total impaired loans	\$12,369	\$13,027	\$ 429	\$ 448

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. We had no loan defaults or charge-offs during the three and six months ended November 30, 2018 or 2017.

NOTE 5—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 consists of a collective allowance for loans in our portfolio that are not individually impaired and a specific allowance for loans identified as individually impaired. The allowance for loan losses is reported separately on the consolidated balance sheet, and the provision for loan losses is separately reported on our consolidated statement of income.

The following tables summarize changes, by company, in the allowance for loan losses as of and for the three and six months ended November 30, 2018 and 2017.

	Three Months Ended November 30,			
	2018			
(Dollars in thousands)	CFC	NCSC	RTFC	Total
Balance as of August 31, 2018	\$12,508	\$2,012	\$4,172	\$18,692
Benefit for loan losses	(334)	(43)	(1,411)	(1,788)
Balance as of November 30, 2018	\$12,174	\$1,969	\$2,761	\$16,904

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
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	Three Months Ended November 30, 2017			
(Dollars in thousands)	CFC	NCSC	RTFC	Total
Balance as of August 31, 2017	\$29,521	\$2,736	\$4,821	\$37,078
Provision (benefit) for loan losses	(722)	381	37	(304)
Balance as of November 30, 2017	\$28,799	\$3,117	\$4,858	\$36,774

	Six Months Ended November 30, 2018			
(Dollars in thousands)	CFC	NCSC	RTFC	Total
Balance as of May 31, 2018	\$12,300	\$2,082	\$4,419	\$18,801
Benefit for loan losses	(126)	(113)	(1,658)	(1,897)
Balance as of November 30, 2018	\$12,174	\$1,969	\$2,761	\$16,904

	Six Months Ended November 30, 2017			
(Dollars in thousands)	CFC	NCSC	RTFC	Total
Balance as of May 31, 2017	\$29,499	\$2,910	\$4,967	\$37,376
Provision (benefit) for loan losses	(700)	207	(109)	(602)
Balance as of November 30, 2017	\$28,799	\$3,117	\$4,858	\$36,774

The tables below present, by company, the components of our allowance for loan losses and the recorded investment of the related loans as of November 30, 2018 and May 31, 2018.

	November 30, 2018			
(Dollars in thousands)	CFC	NCSC	RTFC	Total
Ending balance of the allowance:				
Collective allowance	\$12,174	\$1,969	\$1,611	\$15,754
Specific allowance	—	—	1,150	1,150
Total ending balance of the allowance	\$12,174	\$1,969	\$2,761	\$16,904
Recorded investment in loans:				
Collectively evaluated loans	\$24,153,974	\$767,225	\$349,651	\$25,270,850
Individually evaluated loans	6,261	—	5,842	12,103
Total recorded investment in loans	\$24,160,235	\$767,225	\$355,493	\$25,282,953
Total recorded investment in loans, net ⁽¹⁾	\$24,148,061	\$765,256	\$352,732	\$25,266,049

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(Dollars in thousands)	May 31, 2018			
	CFC	NCSC	RTFC	Total
Ending balance of the allowance:				
Collective allowance	\$12,300	\$2,082	\$3,221	\$17,603
Specific allowance	—	—	1,198	1,198
Total ending balance of the allowance	\$12,300	\$2,082	\$4,419	\$18,801
Recorded investment in loans:				
Collectively evaluated loans	\$24,011,412	\$786,457	\$357,026	\$25,154,895
Individually evaluated loans	6,507	—	6,092	12,599
Total recorded investment in loans	\$24,017,919	\$786,457	\$363,118	\$25,167,494
Total recorded investment in loans, net ⁽¹⁾	\$24,005,619	\$784,375	\$358,699	\$25,148,693

⁽¹⁾ Excludes unamortized deferred loan origination costs of \$11 million as of both November 30, 2018 and May 31, 2018.

In addition to the allowance for loan losses, we also maintain a reserve for unadvanced loan commitments at a level estimated by management to provide for probable losses under these commitments as of each balance sheet date, which was less than \$1 million as of both November 30, 2018 and May 31, 2018.

NOTE

6—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. Our short-term borrowings totaled \$4,101 million and accounted for 17% of total debt outstanding as of November 30, 2018, compared with \$3,796 million, or 15%, of total debt outstanding as of May 31, 2018. The following table displays short-term borrowings outstanding as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, May 31,	
	2018	2018
Short-term borrowings:		
Commercial paper:		
Commercial paper to dealers, net of discounts	\$ 1,058,949	\$1,064,266
Commercial paper to members, at par	1,218,730	1,202,105
Total commercial paper	2,277,679	2,266,371
Select notes to members	1,031,022	780,472
Daily liquidity fund notes to members	566,935	400,635
Medium-term notes to members	224,970	248,432
Farmer Mac revolving facility	—	100,000
Total short-term borrowings	\$ 4,100,606	\$3,795,910

Committed Bank Revolving Line of Credit Agreements

We had \$2,975 million and \$3,085 million of commitments under committed bank revolving line of credit agreements as of November 30, 2018 and May 31, 2018, respectively. Under our current committed bank revolving line of credit agreements,

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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.

On November 28, 2018, we amended the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 28, 2021 and November 28, 2023, respectively, and to terminate certain third-party bank commitments totaling \$53 million under the three-year agreement and \$57 million under the five-year agreement. As a result, the total commitment amount from third-parties under the three-year facility and the five-year facility is \$1,440 million and \$1,535 million, respectively, resulting in a combined total commitment amount under the two facilities of \$2,975 million.

The following table presents the total commitment, the net amount available for use and the outstanding letters of credit under our committed bank revolving line of credit agreements as of November 30, 2018 and May 31, 2018.

(Dollars in millions)	November 30, 2018			May 31, 2018			Maturity	Annual Facility Fee ⁽¹⁾
	Total Commitment	Letters of Credit Outstanding	Net Available for Use	Total Commitment	Letters of Credit Outstanding	Net Available for Use		
3-year agreement	\$—	\$ —	\$ —	\$1,492	\$ —	\$ 1,492	November 20, 2020	7.5 bps
3-year agreement	1,440	—	1,440	—	—	—	November 28, 2021	7.5 bps
Total 3-year agreement	1,440	—	1,440	1,492	—	1,492		
5-year agreement	—	—	—	1,593	3	1,590	November 20, 2022	10 bps
5-year agreement	1,535	3	1,532	—	—	—	November 28, 2023	10 bps
Total 5-year agreement	1,535	3	1,532	1,593	3	1,590		
Total	\$2,975	\$ 3	\$ 2,972	\$3,085	\$ 3	\$ 3,082		

⁽¹⁾ Facility fee determined by CFC's senior unsecured credit ratings based on the pricing schedules put in place at the inception of the related agreement.

We had no borrowings outstanding under our committed bank revolving line of credit agreements as of November 30, 2018 or May 31, 2018, and we were in compliance with all covenants and conditions under the agreements as of each date.

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NOTE
7—LONG-TERM
DEBT

The following table displays long-term debt outstanding, by debt type, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
Unsecured long-term debt:		
Medium-term notes sold through dealers	\$3,296,932	\$3,026,472
Medium-term notes sold to members	397,096	395,389
Subtotal medium-term notes	3,694,028	3,421,861
Unamortized discount	(1,094)	(1,256)
Debt issuance costs	(20,906)	(22,237)
Total unsecured medium-term notes	3,672,028	3,398,368
Unsecured notes payable	18,892	18,892
Unamortized discount	(229)	(277)
Debt issuance costs	(56)	(68)
Total unsecured notes payable	18,607	18,547
Total unsecured long-term debt	3,690,635	3,416,915
Secured long-term debt:		
Collateral trust bonds	7,362,711	7,917,711
Unamortized discount	(246,914)	(250,421)
Debt issuance costs	(29,648)	(28,197)
Total collateral trust bonds	7,086,149	7,639,093
Guaranteed Underwriter Program notes payable	4,925,542	4,856,375
Debt issuance costs	—	(232)
Total Guaranteed Underwriter Program notes payable	4,925,542	4,856,143
Farmer Mac notes payable	2,763,482	2,791,496
Other secured notes payable	11,556	11,556
Debt issuance costs	(208)	(243)
Total other secured notes payable	11,348	11,313
Total secured notes payable	7,700,372	7,658,952
Total secured long-term debt	14,786,521	15,298,045
Total long-term debt	\$18,477,156	\$18,714,960

Collateral Trust Bonds

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

On July 12, 2018, we redeemed \$300 million of the \$1 billion 10.375% collateral trust bonds due November 1, 2018, at a premium of \$7 million. We repaid the remaining \$700 million of these bonds on the maturity date.

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On October 31, 2018, we issued \$325 million aggregate principal amount of 3.90% collateral trust bonds due 2028 and \$300 million aggregate principal amount of 4.40% collateral trust bonds due 2048.

Secured Notes Payable

We had outstanding secured notes payable totaling \$4,926 million and \$4,856 million as of November 30, 2018 and May 31, 2018, respectively, under bond purchase agreements with the Federal Financing Bank and a bond guarantee agreement with RUS issued under the Guaranteed Underwriter Program, which provides guarantees to the Federal Financing Bank. We pay RUS a fee of 30 basis points per year on the total amount outstanding. On November 15, 2018, we closed on a \$750 million committed loan facility (Series N) from the Federal Financing Bank under the Guaranteed Underwriter Program. Pursuant to this facility, we may borrow any time before July 15, 2023. Each advance is subject to quarterly amortization and a final maturity not longer than 20 years from the advance date. We had up to \$1,875 million available for access under the Guaranteed Underwriter Program as of November 30, 2018.

We are required to pledge eligible distribution system or power supply system loans as collateral in an amount at least equal to the total principal amount of notes outstanding under the Guaranteed Underwriter Program. See “Note 4—Loans” for additional information on the collateral pledged to secure notes payable under this program.

We have two revolving note purchase agreements with Farmer Mac, which together allow us to borrow up to \$5,500 million from Farmer Mac. Under our first revolving note purchase agreement with Farmer Mac, dated March 24, 2011, as amended, we can currently borrow, subject to market conditions, up to \$5,200 million at any time through January 11, 2022, and such date shall automatically extend on each anniversary date of the closing for an additional year, unless prior to any such anniversary date, Farmer Mac provides us with a notice that the draw period will not be extended beyond the remaining term. This revolving note purchase agreement allows us to borrow, repay and re-borrow funds at any time through maturity, as market conditions permit, provided that the outstanding principal amount at any time does not exceed the total available under the agreement. Each borrowing under the revolving note purchase agreement is evidenced by a pricing agreement setting forth the interest rate, maturity date and other related terms as we may negotiate with Farmer Mac at the time of each such borrowing. We may select a fixed rate or variable rate at the time of each advance with a maturity as determined in the applicable pricing agreement. Under this note purchase agreement with Farmer Mac, we had outstanding secured notes payable totaling \$2,763 million and \$2,791 million as of November 30, 2018 and May 31, 2018, respectively.

Under our second revolving note purchase agreement with Farmer Mac, dated July 31, 2015, as amended, we can borrow up to \$300 million at any time through December 20, 2023 at a fixed spread over LIBOR. 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. Prior to the maturity date, Farmer Mac may terminate the agreement upon 30 days written notice to us on periodic facility renewal dates, the first of which is January 31, 2019. Subsequent facility renewal dates are on each June 20 or December 20 thereafter until the maturity date. We may terminate the agreement upon 30 days written notice at any time. Under the terms of the first revolving note purchase agreement with Farmer Mac described above, the \$5,200 million commitment will increase to \$5,500 million in the event the second revolving note purchase agreement is terminated.

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

We were in compliance with all covenants and conditions under our senior debt indentures as of November 30, 2018 and May 31, 2018.

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NOTE
8—SUBORDINATED
DEFERRABLE
DEBT

The following table presents subordinated deferrable debt outstanding as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, May 31,	
	2018	2018
4.75% due 2043 with a call date of April 30, 2023	\$ 400,000	\$400,000
5.25% due 2046 with a call date of April 20, 2026	350,000	350,000
Debt issuance costs	(7,520)	(7,590)
Total subordinated deferrable debt	\$ 742,480	\$742,410

NOTE 9—DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

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

Accounting for Derivatives

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

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

We generally do not designate interest rate swaps, which represented all of our outstanding derivatives as of November 30, 2018, for hedge accounting. Accordingly, changes in the fair value of interest rate swaps are reported in

our consolidated statements of income under derivative gains (losses). Net periodic cash settlements related to interest rate swaps are classified as an operating activity in our consolidated statements of cash flows.

Outstanding Notional Amount of Derivatives not Designated as Accounting Hedges

The notional amount provides an indication of the volume of our derivatives activity, but this amount is not recorded on our condensed consolidated balance sheets. The notional amount is used only as the basis on which interest payments are determined and is not the amount exchanged. The following table shows the outstanding notional amounts and the weighted-average rate paid and received for our interest rate swaps, by type, as of November 30, 2018 and May 31, 2018.

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The substantial majority of our interest rate swaps use an index based on the London Interbank Offered Rate ("LIBOR") for either the pay or receive leg of the swap agreement.

(Dollars in thousands)	November 30, 2018				May 31, 2018			
	Notional Amount	Weighted-Average Rate Paid	Weighted-Average Rate Received		Notional Amount	Weighted-Average Rate Paid	Weighted-Average Rate Received	
Pay-fixed swaps	\$7,362,136	2.83 %	2.52 %		\$6,987,999	2.83 %	2.30 %	
Receive-fixed swaps	3,699,000	3.12	2.52		3,824,000	2.93	2.50	
Total interest rate swaps	11,061,136	2.93	2.52		10,811,999	2.86	2.37	
Forward pay-fixed swaps	83,017				256,154			
Total	\$11,144,153				\$11,068,153			

Cash Flow Hedge

In anticipation of the repricing of \$100 million in notes payable outstanding under the Guaranteed Underwriter Program, we entered into a treasury rate lock agreement with a notional amount of \$100 million on May 25, 2018. The agreement, which was scheduled to mature on October 12, 2018, was designated as a cash flow hedge of the forecasted transaction. We recorded an unrealized loss in AOCI of \$1 million as of May 31, 2018 related to this cash flow hedge. On September 25, 2018, we terminated this cash flow hedge as the forecasted transaction was no longer expected to occur. Upon termination, the fair value of the derivative had shifted to a gain of \$1 million from a loss of \$1 million as of May 31, 2018. We reversed the loss recorded in AOCI and recognized the gain in earnings as a component of derivative gains on our condensed consolidated statements of income.

Impact of Derivatives on Condensed Consolidated Balance Sheets

The following table displays the fair value of the derivative assets and derivative liabilities recorded on our condensed consolidated balance sheets and the related outstanding notional amount of our interest rate swaps by derivatives type, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018		May 31, 2018	
	Fair Value	Notional Balance	Fair Value	Notional Balance
Derivative assets:				
Interest rate swaps	\$319,687	\$5,883,946	\$244,526	\$5,264,971
Derivative liabilities:				
Treasury rate lock—cash flow hedge	\$—	\$—	\$1,059	\$100,000
Interest rate swaps	255,112	5,260,207	274,873	5,803,182
Total derivative liabilities	\$255,112	\$5,260,207	\$275,932	\$5,903,182

All of our master swap agreements include netting provisions that allow for offsetting of all contracts with a given counterparty in the event of default by one of the two parties. However, as indicated above, we report derivative asset

and liability amounts on a gross basis by individual contracts. The following table presents the gross fair value of derivative assets and liabilities reported on our condensed consolidated balance sheets as of November 30, 2018 and May 31, 2018, and provides information on the impact of netting provisions and collateral pledged.

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November 30, 2018							
(Dollars in thousands)	Gross Amount of Recognized Assets/ Liabilities Sheet	Gross Amount Offset in the Balance Sheet	Net Amount of Assets/ Liabilities Presented in the Balance Sheet	Gross Amount of Not Offset in the Balance Sheet	Cash Collateral Pledged	Net Amount	
				Financial Instruments			
Derivative assets:							
Interest rate swaps	\$319,687	\$	—\$ 319,687	\$202,952	\$	—\$116,735	
Derivative liabilities:							
Interest rate swaps	255,112	—	255,112	202,952	—	52,160	
May 31, 2018							
(Dollars in thousands)	Gross Amount of Recognized Assets/ Liabilities Sheet	Gross Amount Offset in the Balance Sheet	Net Amount of Assets/ Liabilities Presented in the Balance Sheet	Gross Amount of Not Offset in the Balance Sheet	Cash Collateral Pledged	Net Amount	
				Financial Instruments			
Derivative assets:							
Interest rate swaps		\$244,526	\$	—\$ 244,526	\$196,633	\$	—\$47,893
Derivative liabilities:							
Treasury rate lock—cash flow hedge	1,059	—	1,059	—	—	1,059	
Interest rate swaps	274,873	—	274,873	196,633	—	78,240	

Impact of Derivatives on Condensed Consolidated Statements of Income

Derivative gains (losses) reported in our condensed consolidated statements of income consist of derivative cash settlements and derivative forward value gains (losses). Derivative cash settlements represent net contractual interest expense accruals on interest rate swaps during the period. The derivative forward value gains (losses) represent the change in fair value of our interest rate swaps during the reporting period due to changes in the estimate of future interest rates over the remaining life of our derivative contracts.

The following table presents the components of the derivative gains (losses) reported in our condensed consolidated statements of income for our interest rate swaps for the three and six months ended November 30, 2018 and 2017.

(Dollars in thousands)	Three Months Ended		Six Months Ended	
	November 30, 2018	2017	November 30, 2018	2017

Derivative cash settlements	\$(11,805)	\$(19,635)	\$(24,634)	\$(39,857)
Derivative forward value gains	75,148	145,228	95,160	119,252
Derivative gains	\$63,343	\$125,593	\$70,526	\$79,395

As noted above, during fiscal year 2018, we entered into a treasury rate lock agreement that was designated as a cash flow hedge of a forecasted transaction. This cash flow hedge was terminated on September 25, 2018 and a gain of \$1 million was recorded upon termination as a component of derivative cash settlements in on our condensed consolidated statements of income.

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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 below 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 prevailing fair 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 November 30, 2018. Both Moody's and S&P had our ratings on stable outlook as of November 30, 2018. The following table displays the notional amounts of our derivative contracts with rating triggers as of November 30, 2018, and the payments that would be required if the contracts were terminated as of that date because of a downgrade of our unsecured credit ratings or the counterparty's unsecured credit ratings below A3/A-, below Baa1/BBB+, to or below Baa2/BBB, below Baa3/BBB-, or to or below Ba2/BB+ by Moody's or S&P, respectively. In calculating the payment amounts that would be required upon termination of the derivative contracts, we assumed that the amounts for each counterparty would be netted in accordance with the provisions of the master netting agreements for each counterparty. The net payment amounts are based on the fair value of the underlying derivative instrument, excluding the credit risk valuation adjustment, plus any unpaid accrued interest amounts.

(Dollars in thousands)	Notional Amount	Payable Due from CFC	Receivable Due to CFC	Net (Payable)/Receivable
Impact of rating downgrade trigger:				
Falls below A3/A- ⁽¹⁾	\$52,555	\$ (7,819)	\$ —	\$ (7,819)
Falls below Baa1/BBB+	7,308,946	(37,072)	75,448	38,376
Falls to or below Baa2/BBB ⁽²⁾	525,293	—	7,137	7,137
Falls below Baa3/BBB-	222,643	(8,952)	—	(8,952)
Total	\$8,109,437	\$(53,843)	\$ 82,585	\$ 28,742

⁽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.

We have outstanding notional amount of derivatives with one counterparty subject to a ratings trigger and early termination provision in the event of a downgrade of CFC's senior unsecured credit ratings below Baa3, BBB- or BBB- by Moody's, S&P or Fitch, respectively, which is not included in the above table, totaling \$165 million as of November 30, 2018. These contracts were in an unrealized gain position of \$2 million as of November 30, 2018.

Our largest counterparty exposure, based on the outstanding notional amount, accounted for approximately 23% and 24% of the total outstanding notional amount of derivatives as of November 30, 2018 and May 31, 2018, 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 \$54 million as of November 30, 2018.

NOTE 10—EQUITY

Total equity increased by \$121 million to \$1,627 million as of November 30, 2018. The increase was primarily attributable to our reported net income of \$168 million for the six months ended November 30, 2018, which was partially offset by the patronage capital retirement of \$48 million in August 2018.

In July 2018, the CFC Board of Directors authorized the allocation of the fiscal year 2018 net earnings as follows: \$95 million to members in the form of patronage, \$57 million to the members' capital reserve and \$1 million to the cooperative

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educational fund. The amount of patronage capital allocated each year by CFC's Board of Directors is based on adjusted net income, which excludes the impact of derivative forward value gains (losses). See "MD&A—Non-GAAP Financial Measures" for information on adjusted net income.

In July 2018, the CFC Board of Directors authorized the retirement of allocated net earnings totaling \$48 million, representing 50% of the fiscal year 2018 allocation. This amount was returned to members in cash in August 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 adjusted net income, if any. CFC has made annual retirements of allocated net earnings in 39 of the last 40 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" of our 2018 Form 10-K for additional information.

Accumulated Other Comprehensive Income (Loss)

The following tables summarize, by component, the activity in AOCI as of and for the three and six months ended November 30, 2018 and 2017.

(Dollars in thousands)	Three Months Ended November 30, 2018				
	Unrealized	Unrealized	Unrealized		
	Gains	Gains	Losses		
	(Losses)	(Losses)	Defined	Total	
	Equity	Derivatives	Cash Flow	Benefit	
	Securities	Hedges	Plan		
Beginning balance	\$—	\$ 2,920	\$ (1,035)	\$ (2,099)	\$ (214)
Unrealized gains	—	—	1,035	—	1,035
(Gains) losses reclassified into earnings	—	(120)	—	131	11
Other comprehensive income (loss)	—	(120)	1,035	131	1,046
Ending balance	\$—	\$ 2,800	\$ —	\$ (1,968)	\$ 832

(Dollars in thousands)	Three Months Ended November 30, 2017				
	Unrealized	Unrealized	Unrealized		
	Gains	Gains	Losses		
	(Losses)	(Losses)	Defined	Total	
	Equity	Derivatives	Cash Flow	Benefit	
	Securities	Hedges	Plan		
Beginning balance	\$ 10,865	\$ 3,407	\$ 103	\$ (2,416)	\$ 11,959
Unrealized gains	8	—	—	—	8
(Gains) losses reclassified into earnings	—	(126)	(68)	126	(68)
Other comprehensive income (loss)	8	(126)	(68)	126	(60)
Ending balance	\$ 10,873	\$ 3,281	\$ 35	\$ (2,290)	\$ 11,899

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		Six Months Ended November 30, 2018				
		Unrealized	Unrealized	Unrealized	Unrealized	
		Gains	Unrealized	Gains	Losses	
		(Losses)	Gains	(Losses)	Defined	Total
		Equity	Derivatives	Cash Flow	Benefit	
		Securities		Hedges	Plan	
(Dollars in thousands)	Beginning balance	\$8,794	\$ 3,039	\$ (1,059)	\$ (2,230)	\$8,544
	Cumulative effect from adoption of new accounting standard ⁽¹⁾	(8,794)	—	—	—	(8,794)
	Unrealized gains	—	—	1,059	—	1,059
	(Gains) losses reclassified into earnings	—	(239)	—	262	23
	Other comprehensive income (loss)	—	(239)	1,059	262	1,082
	Ending balance	\$—	\$ 2,800	\$—	\$ (1,968)	\$832
		Six Months Ended November 30, 2017				
		Unrealized	Unrealized	Unrealized	Unrealized	
		Gains	Unrealized	Gains	Losses	
		(Losses)	Gains	(Losses)	Defined	Total
		Equity	Derivatives	Cash Flow	Benefit	
		Securities		Hedges	Plan	
(Dollars in thousands)	Beginning balance	\$12,016	\$ 3,531	\$ 171	\$ (2,543)	\$13,175
	Unrealized losses	(1,143)	—	—	—	(1,143)
	(Gains) losses reclassified into earnings	—	(250)	(136)	253	(133)
	Other comprehensive income (loss)	(1,143)	(250)	(136)	253	(1,276)
	Ending balance	\$10,873	\$ 3,281	\$ 35	\$ (2,290)	\$11,899

⁽¹⁾ Represents the adjustment to AOCI as a result of the new accounting standards adopted during the six months ended November 30, 2018, see “Note 1—Summary of Significant Accounting Policies.”

We expect to reclassify less than \$1 million of amounts in AOCI related to unrealized derivative gains into earnings over the next 12 months.

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NOTE 11—GUARANTEES

The following table summarizes total guarantees, by type of guarantee and by member class, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
Total by type:		
Long-term tax-exempt bonds ⁽¹⁾	\$ 313,685	\$ 316,985
Letters of credit ⁽²⁾	312,536	343,970
Other guarantees	145,201	144,206
Total	\$ 771,422	\$ 805,161
Total by member class:		
CFC:		
Distribution	\$ 201,189	\$ 201,993
Power supply	549,825	587,837
Statewide and associate	3,335	3,326
CFC total	754,349	793,156
NCSC	15,499	10,431
RTFC	1,574	1,574
Total	\$ 771,422	\$ 805,161

⁽¹⁾Represents the outstanding principal amount of long-term fixed-rate and variable-rate guaranteed bonds.

⁽²⁾Reflects our maximum potential exposure for letters of credit.

Long-term tax-exempt bonds of \$314 million and \$317 million as of November 30, 2018 and May 31, 2018, respectively, included \$248 million and \$250 million, respectively, of adjustable or variable-rate bonds that may be converted to a fixed rate as specified in the applicable indenture for each bond offering. We are unable to determine the maximum amount of interest that we may be required to pay related to the remaining adjustable and variable-rate bonds. Many of these bonds have a call provision that allows us to call the bond in the event of a default, which would limit our exposure to future interest payments on these bonds. Our maximum potential exposure generally is secured by mortgage liens on the members' assets and future revenue. If a member's debt is accelerated because of a determination that the interest thereon is not tax-exempt, the member's obligation to reimburse us for any guarantee payments will be treated as a long-term loan. The remaining long-term tax-exempt bonds of \$66 million as of November 30, 2018 are fixed-rate. The maximum potential exposure for these bonds, including the outstanding principal of \$66 million and related interest through maturity, totaled \$92 million as of November 30, 2018. The maturities for long-term tax-exempt bonds and the related guarantees extend through calendar year 2042.

Of the outstanding letters of credit of \$313 million and \$344 million as of November 30, 2018 and May 31, 2018, respectively, \$124 million and \$120 million, respectively, were secured. We did not have any letters of credit outstanding that provided for standby liquidity for adjustable and floating-rate tax-exempt bonds issued for the benefit of our members as of November 30, 2018. The maturities for the outstanding letters of credit as of November 30, 2018

extend through calendar year 2028.

In addition to the letters of credit listed in the table above, under master letter of credit facilities in place as of November 30, 2018, we may be required to issue up to an additional \$58 million in letters of credit to third parties for the benefit of our

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members. All of our master letter of credit facilities were subject to material adverse change clauses at the time of issuance as of November 30, 2018. Prior to issuing a letter of credit, we would confirm that there has been no material adverse change in the business or condition, financial or otherwise, of the borrower since the time the loan was approved and confirm that the borrower is currently in compliance with the letter of credit terms and conditions.

The maximum potential exposure for other guarantees was \$146 million and \$145 million as of November 30, 2018 and May 31, 2018, respectively, all of which were unsecured. The maturities for these other guarantees listed in the table above extend through calendar year 2025.

Guarantees under which our right of recovery from our members was not secured totaled \$308 million and \$344 million and represented 40% and 43% of total guarantees as of November 30, 2018 and May 31, 2018, respectively.

In addition to the guarantees described above, we were also the liquidity provider for \$248 million of variable-rate tax-exempt bonds as of November 30, 2018, issued for our member cooperatives. While the bonds are in variable-rate mode, in return for a fee, we have unconditionally agreed to purchase bonds tendered or put for redemption if the remarketing agents are unable to sell such bonds to other investors. We were not required to perform as liquidity provider pursuant to these obligations during the six months ended November 30, 2018 or the prior fiscal year.

Guarantee Liability

As of November 30, 2018 and May 31, 2018, we recorded a guarantee liability of \$10 million and \$11 million as of November 30, 2018 and May 31, 2018, respectively, which represents the contingent and noncontingent exposures related to guarantees and liquidity obligations. The contingent guarantee liability was \$1 million as of both November 30, 2018 and May 31, 2018, based on management's estimate of exposure to losses within the guarantee portfolio. The remaining balance of the total guarantee liability of \$9 million and \$10 million as of November 30, 2018 and May 31, 2018, respectively, relates to our noncontingent obligation to stand ready to perform over the term of our guarantees and liquidity obligations that we have entered into or modified since January 1, 2003.

NOTE 12—FAIR VALUE MEASUREMENT

We use fair value measurements for the initial recording of certain assets and liabilities and periodic remeasurement of certain assets and liabilities on a recurring or nonrecurring basis. The accounting guidance for fair value measurements and disclosures establishes a three-level fair value hierarchy that prioritizes the inputs into the valuation techniques used to measure fair value. The levels of the fair value hierarchy, in priority order, include Level 1, Level 2 and Level 3. For additional information regarding the fair value hierarchy and a description of the methodologies we use to measure fair value, see "Note 13—Fair Value Measurement" to the Consolidated Financial Statements in our 2018 Form 10-K.

The following tables present the carrying value and fair value for all of our financial instruments, including those carried at amortized cost, as of November 30, 2018 and May 31, 2018. The tables also display the classification within the fair value hierarchy of the valuation technique used in estimating fair value.

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(Dollars in thousands)	November 30, 2018		Fair Value Measurement Level		
	Carrying Value	Fair Value	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	\$226,758	\$226,758	\$226,758	\$—	\$ —
Restricted cash	16,174	16,174	16,174	—	—
Equity securities	86,988	86,988	86,988	—	—
Debt securities held-to-maturity	558,071	550,116	—	550,116	—
Deferred compensation investments	5,001	5,001	5,001	—	—
Loans to members, net	25,277,271	23,830,865	—	—	23,830,865
Accrued interest receivable	133,988	133,988	—	133,988	—
Debt service reserve funds	17,151	17,151	17,151	—	—
Derivative assets	319,687	319,687	—	319,687	—
Liabilities:					
Short-term borrowings	\$4,100,606	\$4,100,581	\$—	\$4,100,581	\$ —
Long-term debt	18,477,156	18,370,056	—	10,837,939	7,532,117
Accrued interest payable	146,639	146,639	—	146,639	—
Guarantee liability	9,612	9,249	—	—	9,249
Derivative liabilities	255,112	255,112	—	255,112	—
Subordinated deferrable debt	742,480	738,620	—	738,620	—
Members' subordinated certificates	1,376,689	1,376,689	—	—	1,376,689

(Dollars in thousands)	May 31, 2018		Fair Value Measurement Level		
	Carrying Value	Fair Value	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	\$230,999	\$230,999	\$230,999	\$—	\$ —
Restricted cash	7,825	7,825	7,825	—	—
Time deposits	100,000	100,000	—	100,000	—
Equity securities	89,332	89,332	89,332	—	—
Debt securities held to maturity	520,519	516,546	—	516,546	—
Deferred compensation investments	5,194	5,194	5,194	—	—
Loans to members, net	25,159,807	24,167,886	—	—	24,167,886
Accrued interest receivable	127,442	127,442	—	127,442	—
Debt service reserve funds	17,151	17,151	17,151	—	—
Derivative assets	244,526	244,526	—	244,526	—
Liabilities:					
Short-term borrowings	\$3,795,910	\$3,795,799	\$—	\$3,695,799	\$ 100,000
Long-term debt	18,714,960	18,909,276	—	11,373,216	7,536,060
Accrued interest payable	149,284	149,284	—	149,284	—
Guarantee liability	10,589	10,454	—	—	10,454

Derivative liabilities	275,932	275,932	—	275,932	—
Subordinated deferrable debt	742,410	766,088	—	766,088	—
Members' subordinated certificates	1,379,982	1,380,004	—	—	1,380,004

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Transfers Between Levels

We monitor the availability of observable market data to assess the appropriate classification of financial instruments within the fair value hierarchy and transfer between Level 1, Level 2, and Level 3 accordingly. Observable market data includes but is not limited to quoted prices and market transactions. Changes in economic conditions or market liquidity generally will drive changes in availability of observable market data. Changes in availability of observable market data, which also may result in changes in the valuation technique used, are generally the cause of transfers between levels. We did not have any transfers between levels for financial instruments measured at fair value on a recurring basis for the six months ended November 30, 2018 and 2017.

Recurring Fair Value Measurements

The following table presents the carrying value and fair value of financial instruments reported in our condensed consolidated financial statements at fair value on a recurring basis as of November 30, 2018 and May 31, 2018, and the classification of the valuation technique within the fair value hierarchy.

(Dollars in thousands)	November 30, 2018			May 31, 2018		
	Level 1	Level 2	Total	Level 1	Level 2	Total
Equity securities	\$86,988	\$ —	\$86,988	\$89,332	\$ —	\$89,332
Deferred compensation investments	5,001	—	5,001	5,194	—	5,194
Derivative assets	—	319,687	319,687	—	244,526	244,526
Derivative liabilities	—	255,112	255,112	—	275,932	275,932

Nonrecurring Fair Value

We did not have any assets or liabilities reported in our condensed consolidated financial statements at fair value on a nonrecurring basis during the three and six months ended November 30, 2018 and 2017.

Significant Unobservable Level 3 Inputs

Impaired Loans

We utilize the fair value of estimated cash flows or the collateral underlying the loan to determine the fair value and specific allowance for impaired loans. The valuation technique used to determine fair value of the impaired loans provided by both our internal staff and third-party specialists includes market multiples (i.e., comparable companies). The significant unobservable inputs used in the determination of fair value for individually impaired loans is a multiple of earnings before interest, taxes, depreciation and amortization based on various factors (i.e., financial condition of the borrower). In estimating the fair value of the collateral, we may use third-party valuation specialists, internal estimates or a combination of both. The significant unobservable inputs for estimating the fair value of impaired collateral-dependent loans are reviewed by our Credit Risk Management group to assess the reasonableness of the assumptions used and the accuracy of the work performed. In cases where we rely on third-party inputs, we use the final unadjusted third-party valuation analysis as support for any adjustments to our consolidated financial statements and disclosures.

Because of the limited amount of impaired loans as of November 30, 2018 and May 31, 2018, we do not believe that potential changes in the significant unobservable inputs used in the determination of the fair value for impaired loans will have a material impact on the fair value measurement of these assets or our results of operations.

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NOTE 13—BUSINESS SEGMENTS

The following tables display segment results for the three and six months ended November 30, 2018 and 2017, and assets attributable to each segment as of November 30, 2018 and November 30, 2017.

	Three Months Ended November 30, 2018			
(Dollars in thousands)	CFC	Other	Elimination	Consolidated Total
Statement of operations:				
Interest income	\$279,033	\$12,945	\$(10,725)	\$ 281,253
Interest expense	(203,985)	(10,906)	10,725	(204,166)
Net interest income	75,048	2,039	—	77,087
Benefit for loan losses	1,788	—	—	1,788
Net interest income after benefit for loan losses	76,836	2,039	—	78,875
Non-interest income:				
Fee and other income	5,623	490	(1,792)	4,321
Derivative gains (losses):				
Derivative cash settlements	(11,546)	(259)	—	(11,805)
Derivative forward value gains	74,591	557	—	75,148
Derivative gains	63,045	298	—	63,343
Total non-interest income	68,668	788	(1,792)	67,664
Non-interest expense:				
General and administrative expenses	(23,544)	(1,919)	1,593	(23,870)
Other non-interest expense	(2,700)	(199)	199	(2,700)
Total non-interest expense	(26,244)	(2,118)	1,792	(26,570)
Income before income taxes	119,260	709	—	119,969
Income tax expense	—	(243)	—	(243)
Net income	\$119,260	\$466	\$ —	\$ 119,726

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(Dollars in thousands)	Three Months Ended November 30, 2017			Consolidated Total
	CFC	Other	Elimination	
Statement of operations:				
Interest income	\$263,180	\$12,257	\$ (9,614)	\$ 265,823
Interest expense	(194,943)	(9,841)	9,614	(195,170)
Net interest income	68,237	2,416	—	70,653
Benefit for loan losses	304	—	—	304
Net interest income after benefit for loan losses	68,541	2,416	—	70,957
Non-interest income:				
Fee and other income	5,490	301	(249)	5,542
Derivative gains (losses):				
Derivative cash settlements	(18,990)	(645)	—	(19,635)
Derivative forward value gains	143,452	1,776	—	145,228
Derivative gains	124,462	1,131	—	125,593
Results of operations of foreclosed assets	(10)	—	—	(10)
Total non-interest income	129,942	1,432	(249)	131,125
Non-interest expense:				
General and administrative expenses	(20,292)	(1,622)	—	(21,914)
Other non-interest expense	(618)	(249)	249	(618)
Total non-interest expense	(20,910)	(1,871)	249	(22,532)
Income before income taxes	177,573	1,977	—	179,550
Income tax expense	—	(827)	—	(827)
Net income	\$177,573	\$1,150	\$ —	\$ 178,723

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(Dollars in thousands)	Six Months Ended November 30, 2018			Consolidated Total
	CFC	Other	Elimination	
Statement of income:				
Interest income	\$555,276	\$25,929	\$(21,461)	) \$559,744
Interest expense	(414,035)	) (21,823)	) 21,461	(414,397)
Net interest income	141,241	4,106	—	145,347
Benefit for loan losses	1,897	—	—	1,897
Net interest income after benefit for loan losses	143,138	4,106	—	147,244
Non-interest income:				
Fee and other income	10,096	1,054	(3,644)	) 7,506
Derivative gains (losses):				
Derivative cash settlements	(24,108)	) (526)	) —	(24,634)
Derivative forward value gains	94,262	898	—	95,160
Derivative gains	70,154	372	—	70,526
Total non-interest income	80,250	1,426	(3,644)	) 78,032
Non-interest expense:				
General and administrative expenses	(45,969)	) (4,293)	) 3,187	(47,075)
Losses on early extinguishment of debt	(7,100)	) —	—	(7,100)
Other non-interest expense	(3,094)	) (457)	) 457	(3,094)
Total non-interest expense	(56,163)	) (4,750)	) 3,644	(57,269)
Income before income taxes	167,225	782	—	168,007
Income tax expense	—	(303)	) —	(303)
Net income	\$167,225	\$479	\$—	\$167,704

	November 30, 2018			Consolidated Total
	CFC	Other	Elimination	
Assets:				
Total loans outstanding	\$25,250,000	\$1,122,718	\$(1,089,765)	) \$25,282,953
Deferred loan origination costs	11,222	—	—	11,222
Loans to members	25,261,222	1,122,718	(1,089,765)	) 25,294,175
Less: Allowance for loan losses	(16,904)	) —	—	(16,904)
Loans to members, net	25,244,318	1,122,718	(1,089,765)	) 25,277,271
Other assets	1,542,099	112,923	(102,535)	) 1,552,487
Total assets	\$26,786,417	\$1,235,641	\$(1,192,300)	) \$26,829,758

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

	Six Months Ended November 30, 2017			
(Dollars in thousands)	CFC	Other	Elimination	Consolidated Total
Statement of income:				
Interest income	\$526,591	\$23,206	\$(18,059)	\$531,738
Interest expense	(387,448)	(18,512)	18,059	(387,901)
Net interest income	139,143	4,694	—	143,837
Benefit for loan losses	602	—	—	602
Net interest income after benefit for loan losses	139,745	4,694	—	144,439
Non-interest income:				
Fee and other income	9,378	701	(592)	9,487
Derivative gains (losses):				
Derivative cash settlements	(38,554)	(1,303)		(39,857)
Derivative forward value gains	117,341	1,911	—	119,252
Derivative gains	78,787	608	—	79,395
Results of operations of foreclosed assets	(34)	—	—	(34)
Total non-interest income	88,131	1,309	(592)	88,848
Non-interest expense:				
General and administrative expenses	(40,030)	(3,520)	—	(43,550)
Other non-interest expense	(1,140)	(592)	592	(1,140)
Total non-interest expense	(41,170)	(4,112)	592	(44,690)
Income before income taxes	186,706	1,891	—	188,597
Income tax expense	—	(859)	—	(859)
Net income	\$186,706	\$1,032	\$—	\$187,738
November 30, 2017				
	CFC	Other	Elimination	Consolidated Total
Assets:				
Total loans outstanding	\$24,777,423	\$1,111,438	\$(1,075,319)	\$24,813,542
Deferred loan origination costs	11,149	—	—	11,149
Loans to members	24,788,572	1,111,438	(1,075,319)	24,824,691
Less: Allowance for loan losses	(36,774)	—	—	(36,774)
Loans to members, net	24,751,798	1,111,438	(1,075,319)	24,787,917
Other assets	1,081,850	107,516	(97,040)	1,092,326
Total assets	\$25,833,648	\$1,218,954	\$(1,172,359)	\$25,880,243

Item 3. Quantitative and Qualitative Disclosures About Market Risk

For quantitative and qualitative disclosures about market risk, see “Part I—Item 2. MD&A—Market Risk” and “Note 9—Derivative Instruments and Hedging Activities.”

Item 4. Controls and Procedures

As of the end of the period covered by this report, senior management, including the Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934. Based on this evaluation process, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures are effective. There were no changes in our internal control over financial reporting that occurred during the three months ended November 30, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. 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 1A. Risk Factors

Refer to “Part I— Item 1A. Risk Factors” in our 2018 Form 10-K for information regarding factors that could affect our results of operations, financial condition and liquidity. We are not aware of any material changes in the risk factors set forth under “Part I— Item 1A. Risk Factors” in our 2018 Form 10-K.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Not applicable.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

The following exhibits are incorporated by reference or filed as part of this Report.

EXHIBIT INDEX

Exhibit No.	Description
10.1*	<u>Amendment No. 3 dated as of November 28, 2018 to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 maturing on November 28, 2021.</u>
10.2*	<u>Amendment No. 3 dated as of November 28, 2018 to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 maturing on November 28, 2023.</u>
10.3*	<u>Series N Bond Purchase Agreement between the Registrant, Federal Financing Bank and Rural Utilities Service dated as of November 15, 2018 for up to \$750,000,000.</u>
10.4*	<u>Series N Future Advance Bond from the Registrant to the Federal Financing Bank dated as of November 15, 2018 for up to \$750,000,000 maturing on July 15, 2043.</u>
10.5*	<u>Fifth Amended, Restated and Consolidated Pledge Agreement dated as of November 15, 2018 between the Registrant, the Rural Utilities Service and U.S. Bank National Association.</u>
10.6*	<u>Fifth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 15, 2018 between the Registrant and the Rural Utilities Service.</u>
31.1*	Certification of the Chief Executive Officer required by Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of the Chief Financial Officer required by Section 302 of the Sarbanes-Oxley Act of 2002
32.1†	Certification of the Chief Executive Officer required by Section 906 of the Sarbanes-Oxley Act of 2002
32.2†	Certification of the Chief Financial Officer required by Section 906 of the Sarbanes-Oxley Act of 2002
101.INS*	-XBRL Instance Document
101.SCH*	-XBRL Taxonomy Extension Schema Document
101.CAL*	-XBRL Taxonomy Calculation Linkbase Document
101.LAB*	-XBRL Taxonomy Label Linkbase Document
101.PRE*	-XBRL Taxonomy Presentation Linkbase Document
101.DEF*	-XBRL Taxonomy Definition Linkbase Document

*Indicates a document being filed with this Report.

†Indicates a document that is furnished with this Report, which shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION

Date: January 11, 2019

By: /s/ J. ANDREW DON

J. Andrew Don

Senior Vice President and Chief Financial Officer

By: /s/ ROBERT E. GEIER

Robert E. Geier

Controller (Principal Accounting Officer)