

LAND O' LAKES, INC.

2016 FINANCIAL RESULTS

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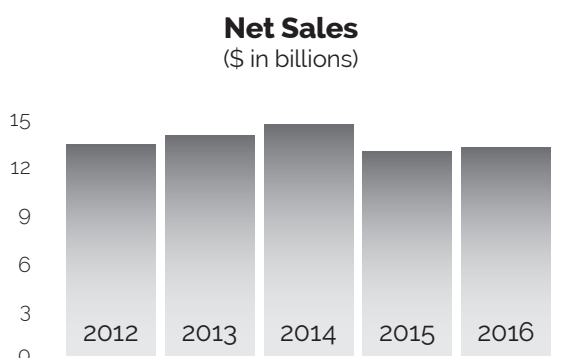
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FINANCIAL OVERVIEW

Land O'Lakes, Inc. ("Land O'Lakes" or the "Company") operates in three reportable segments: Dairy Foods, Feed and Crop Inputs. Dairy Foods develops, produces, markets and sells a variety of premium butter, spreads, cheese, refrigerated desserts and other related dairy products. Feed, through Purina Animal Nutrition LLC, develops, produces, markets and distributes animal feed to both the lifestyle and livestock animal markets. Crop Inputs, which is primarily the operations of Winfield Solutions, LLC, develops, markets and sells seed for a variety of crops (including alfalfa, corn and soybeans) and distributes crop protection products (including herbicides, pesticides, fungicides and adjuvants).

SALES AND EARNINGS

Net Sales for Land O'Lakes in 2016 were \$13.2 billion, compared with \$13.0 billion in 2015, an increase of two percent. Crop Inputs was primarily responsible for the increase, due to the full-year effect of the merger with the crop protection and seed business of United Suppliers, Inc., which was completed in late-2015.



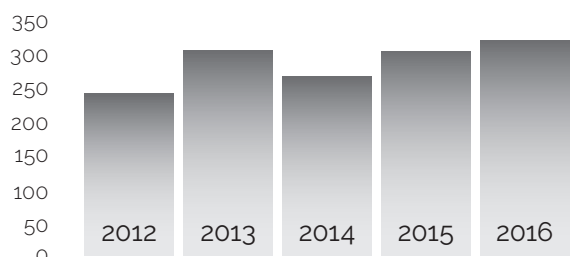
Net Earnings increased \$15.7 million to \$319.9 million in 2016 from \$304.2 million in 2015.

These results include the impact of the year-to-year change in unrealized hedging gains and losses on derivative contracts. In 2016, unrealized hedging gains increased net earnings by \$7.2 million, net of income taxes, compared to 2015 where unrealized hedging gains increased net earnings by \$10.6 million, net of income taxes. Unrealized gains and losses in earnings represent the changes in value of futures contracts from one period to another. Based on generally accepted accounting principles in the United States, the offsetting gain or loss on the underlying commodity purchase or product sale being hedged is excluded from earnings until the transaction is completed.

Excluding the effects of unrealized hedging gains and losses as well as the one-time gain on the sale of an investment in 2015, Dairy Foods earnings increased due to stronger market prices in global dairy ingredients as well as increased volumes and stronger margins in the foodservice business. Earnings in Feed increased compared to the prior year due to stronger margins throughout the portfolio. Crop Inputs earnings increased compared to 2015 mainly due to the full-year effect of the merger with the crop protection and seed business of United Suppliers, Inc. in late 2015.

Net Earnings

(\$ in millions)



FINANCIAL CONDITION

Debt includes notes and short-term obligations, the current portion of long-term debt and long-term debt. Notes and short-term obligations at December 31, 2016 were \$485.1 million, compared with \$114.7 million at December 31, 2015. Long-term debt, including the current portion, was \$883.2 million at December 31, 2016, compared with \$1,047.2 million at December 31, 2015.

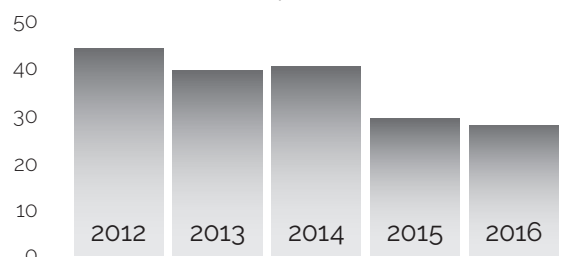
The Company's primary sources of debt and liquidity at December 31, 2016 included a \$700.0 million receivables securitization facility of which \$375.0 million was outstanding and \$325.0 million was available, \$549.2 million of availability on a \$575.0 million revolving credit facility, \$170.0 million in 6.67%-6.77% private placement notes, \$300.0 million in 6% unsecured senior notes, a \$150 million term loan with a variable rate based on LIBOR, swapped to a fixed rate of 4.44%, and \$200.0 million of 7.45% capital securities.

Liquidity, which consists of cash and availability under credit facilities, was \$975.2 million at December 31, 2016, compared with \$1,591.4 million at December 31, 2015.

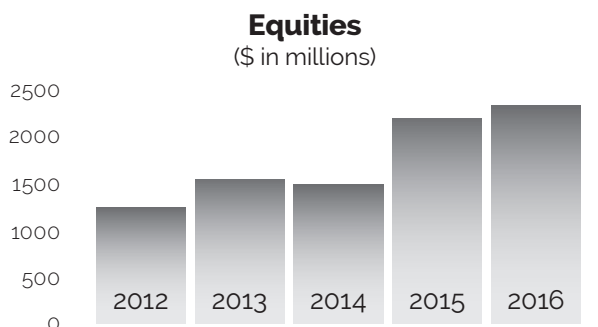
Land O'Lakes long-term debt-to-capital ratio was 27.9 percent at December 31, 2016, compared with 29.2 percent a year ago.

LTD to Capital

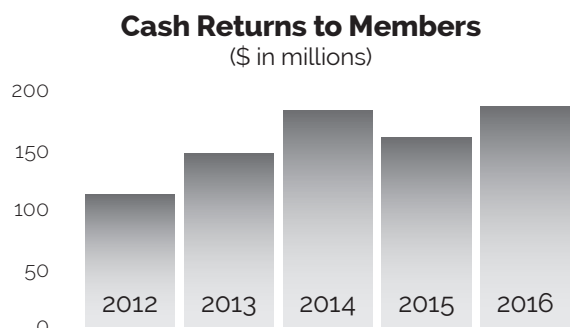
(as a percent)



Equities at December 31, 2016 were \$2,269.3 million, compared with \$2,138.6 million at December 31, 2015. The increase was primarily due to the issuance of \$115.0 million of preferred stock and current year earnings.



Cash returned to members in 2016 was \$187.3 million, compared with \$160.9 million in 2015. Members received \$67.2 million of equity revolvments, \$114.6 million of cash patronage related to prior year earnings and \$5.5 million of age retirement, estate and other payments during the year.

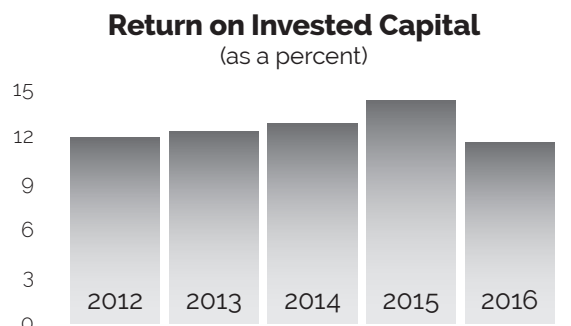


PERFORMANCE MEASURES

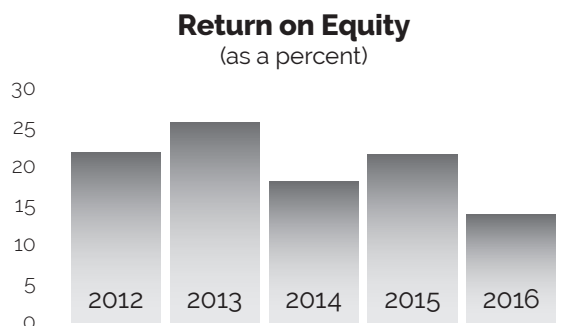
Land O'Lakes is committed to increasing returns to members and enhancing ownership value by improving profitability in each core

business through the effective use of invested capital and equity. The Company uses two primary performance measures: return on invested capital ("ROIC") and return on equity ("ROE"). ROIC indicates the operating return on invested capital before considering the costs of financing and income taxes. ROE combines the results of operating performance with the effects of financial leverage and income taxes to measure the return on members' equity in Land O'Lakes.

Return on invested capital in 2016 was 11.8 percent, compared with 14.3 percent in the prior year. Land O'Lakes average ROIC for the five-year period ended in 2016 was 12.6 percent.



Return on equity in 2016 was 13.8 percent, compared with 21.5 percent in 2015. Average ROE for the five-year period ended in 2016 was 20.1 percent.



Five Years In Review (\$ in millions)	2016	2015	2014	2013	2012
Operations:					
Net Sales	\$13,233	\$13,008	\$14,694	\$13,978	\$13,381
Earnings before income taxes and discontinued operations	347	337	264	301	267
Net earnings	320	304	267	306	241
Allocated patronage equities	182	185	178	185	180
Cash returned to members	187	161	184	147	113
Financial Position:					
Working Capital	\$1,039	\$1,218	\$795	\$872	\$756
Investments	297	298	328	320	325
Property, plant and equipment	1,180	1,076	916	849	780
Total assets	8,305	8,000	6,969	6,588	6,033
Long-term debt	877	881	986	981	963
Equities	2,269	2,139	1,447	1,499	1,210
Financial Measures:					
Return on equity	13.8%	21.5%	18.0%	25.6%	21.7%
Return on invested capital	11.8%	14.3%	12.8%	12.3%	11.9%
Long-term debt-to-capital	27.9%	29.2%	40.5%	39.6%	44.3%
Current Ratio	1.22	1.27	1.20	1.22	1.21

CONSOLIDATED BALANCE SHEETS

As of December 31 (\$ in thousands)	2016	2015
Assets		
Current assets:		
Cash and cash equivalents	\$101,024	\$341,113
Receivables, net	1,650,580	1,575,528
Inventories	2,186,006	2,083,101
Prepaid assets	1,737,970	1,625,408
Other current assets	21,022	33,015
Total current assets	5,696,602	5,658,165
Investments	296,876	297,999
Property, plant and equipment, net	1,180,251	1,075,858
Goodwill	505,099	494,666
Other intangibles, net	456,215	267,669
Other assets	169,968	205,608
Total assets	\$8,305,011	\$7,999,965
Liabilities and Equities		
Current liabilities:		
Notes and short-term obligations	\$485,118	\$114,660
Current portion of long-term debt	6,243	166,128
Accounts payable	1,689,672	1,593,405
Customer advances	1,752,059	1,839,896
Accrued liabilities	610,862	632,354
Patronage refunds and other member equities payable	113,996	93,672
Total current liabilities	4,657,950	4,440,115
Long-term debt	876,986	881,111
Employee benefits and other liabilities	500,824	540,158
Commitments and contingencies	—	—
Equities:		
Capital stock	785	804
Series A cumulative redeemable preferred stock	307,808	195,384
Member equities	1,072,846	1,103,225
Accumulated other comprehensive loss	(222,197)	(226,314)
Retained earnings	744,895	702,997
Total Land O'Lakes, Inc. equity	1,904,137	1,776,096
Noncontrolling interests	365,114	362,485
Total equities	2,269,251	2,138,581
Total liabilities and equities	\$8,305,011	\$7,999,965

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF OPERATIONS

Years Ended December 31 (\$ in thousands)	2016	2015	2014
Net sales	\$13,233,444	\$13,007,704	\$14,693,546
Cost of sales	11,692,196	11,620,485	13,444,419
Gross profit	1,541,248	1,387,219	1,249,127
Selling, general and administrative	1,166,672	1,055,466	976,677
Earnings from operations	374,576	331,753	272,450
Interest expense, net	64,686	55,612	63,160
Other expense (income), net	1,891	(14,288)	(2,799)
Equity in earnings of affiliated companies	(39,496)	(46,817)	(52,365)
Earnings before income taxes and discontinued operations	347,495	337,246	264,454
Income tax expense	27,596	39,315	13,410
Net earnings from continuing operations	319,899	297,931	251,044
Net earnings from discontinued operations	—	6,259	15,666
Net earnings	319,899	304,190	266,710
Less: net earnings (losses) attributable to noncontrolling interests	74,962	(3,370)	215
Net earnings attributable to Land O'Lakes, Inc.	\$244,937	\$307,560	\$266,495
Applied to:			
Allocated patronage	\$181,977	\$184,844	\$178,293
Retained earnings	62,960	122,716	88,202
	\$244,937	\$307,560	\$266,495

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE EARNINGS

Years Ended December 31 (\$ in thousands)	2016	2015	2014
Net earnings	\$319,899	\$304,190	\$266,710
Other comprehensive earnings, net of tax			
Pension and other postretirement adjustments, net of income taxes	1,348	16,945	(98,511)
Cash flow hedge adjustments, net of income taxes	1,761	(143)	(3,711)
Foreign currency translation adjustments, net of income taxes	6,682	(14,308)	(3,094)
Total other comprehensive earnings (loss)	9,791	2,494	(105,316)
Comprehensive earnings	329,690	306,684	161,394
Less: comprehensive earnings (loss) attributable to noncontrolling interests	79,448	(8,423)	(386)
Comprehensive earnings attributable to Land O'Lakes, Inc.	\$250,242	\$315,107	\$161,780

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Years Ended December 31 (\$ in thousands)	2016	2015	2014
Cash flows from operating activities:			
Net earnings	\$319,899	\$304,190	\$266,710
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation and amortization	180,022	151,890	141,438
Amortization of deferred financing costs	1,965	2,200	2,689
Bad debt expense	3,334	1,336	3,467
Proceeds from patronage revolvment received	2,565	4,717	6,352
Non-cash patronage income	(3,174)	(6,372)	(5,262)
Deferred income tax expense	9,931	6,520	1,021
Restructuring and impairment	7,223	2,386	9,144
Gain (loss) on divestiture of a business	—	9,628	(8,119)
Gain on sale of investments	(607)	(14,288)	(6,074)
Equity in earnings of affiliated companies	(39,496)	(46,817)	(52,365)
Dividends from investments in affiliated companies	39,119	37,556	38,969
Other	(9,871)	2,211	3,071
Changes in assets and liabilities, net of acquisitions and divestitures:			
Receivables	(123,488)	147,305	43,808
Inventories	(106,630)	(113,662)	4,318
Prepays and other current assets	(112,075)	(301,763)	246,584
Accounts payable	63,398	(105,314)	2,815
Customer advances	(89,166)	(21,422)	15,995
Accrued liabilities	(62,162)	22,958	67,424
Other assets	(1,712)	1	(513)
Other liabilities	20,503	15,874	5,182
Net cash provided by operating activities	99,578	99,134	786,654
Cash flows from investing activities:			
Additions to property, plant and equipment	(242,407)	(250,500)	(163,918)
Purchase of intangible assets	(199,899)	—	—
Acquisitions, net of cash acquired	(29,355)	(44,439)	(4,763)
Investments in affiliates	(4,916)	(5,000)	(412)
Net proceeds from divestiture of businesses	—	82,085	151,440
Net proceeds from sale of investments	5,751	65,000	24,130
Proceeds from sale of property, plant and equipment	26,415	4,624	8,094
Change in notes receivable	57,643	(50,085)	(21,666)
Other	1,581	7,202	3,298
Net cash used by investing activities	(385,187)	(191,113)	(3,797)
Cash flows from financing activities:			
Increase (decrease) in short-term debt	365,881	(188,421)	4,572
Proceeds from issuance of long-term debt	2,302	21,560	3,200
Principal payments on long-term debt and capital lease obligations	(161,575)	(15,011)	(76,642)
Cash patronage and payments for redemption of member equities	(187,285)	(160,862)	(183,640)
Proceeds from preferred stock issued	112,424	195,384	—
Distributions to noncontrolling interest holders	(52,880)	—	—
Preferred stock dividends paid	(22,900)	(6,622)	—
Other	(10,447)	(5,191)	(935)
Net cash provided by (used by) financing activities	45,520	(159,163)	(253,445)
Net (decrease) increase in cash and cash equivalents	(240,089)	(251,142)	529,412
Cash and cash equivalents at beginning of the period	341,113	592,255	62,843
Cash and cash equivalents at end of the period	\$101,024	\$341,113	\$592,255

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF EQUITIES

Years Ended December 31
(\$ in thousands)

	Common Stock	Member Equities	Accumulated Other Comprehensive Loss	Retained Earnings	Preferred Stock	Noncontrolling Interests	Total Equities
Balance, December 31, 2013	\$860	\$1,108,282	\$(129,146)	\$500,721	\$—	\$17,835	\$1,498,552
Capital stock issued	4	—	—	—	—	—	4
Capital stock redeemed	(34)	—	—	—	—	—	(34)
Cash patronage and redemption of member equities	—	(183,640)	—	—	—	—	(183,640)
Redemption included in prior year's liabilities	—	68,715	—	—	—	—	68,715
Other, net	—	1,968	—	(1,937)	—	(192)	(161)
2014 earnings, as applied	—	178,293	—	88,202	—	215	266,710
Other comprehensive earnings, net of income taxes	—	—	(104,715)	—	—	(601)	(105,316)
Patronage refunds payable	—	(98,053)	—	—	—	—	(98,053)
Balance, December 31, 2014	830	1,075,565	(233,861)	586,986	—	17,257	1,446,777
Capital stock issued	7	—	—	—	—	—	7
Capital stock redeemed	(33)	—	—	—	—	—	(33)
Preferred stock issued	—	—	—	—	195,384	—	195,384
Preferred stock dividends	—	—	—	(7,333)	—	—	(7,333)
Cash patronage and redemption of member equities	—	(160,862)	—	—	—	—	(160,862)
Redemption included in prior year's liabilities	—	98,053	—	—	—	—	98,053
Addition of noncontrolling interest	—	—	—	—	—	367,852	367,852
Other, net	—	(703)	—	628	—	(14,201)	(14,276)
2015 earnings, as applied	—	184,844	—	122,716	—	(3,370)	304,190
Other comprehensive loss, net of income taxes	—	—	7,547	—	—	(5,053)	2,494
Patronage refunds payable	—	(93,672)	—	—	—	—	(93,672)
Balance, December 31, 2015	804	1,103,225	(226,314)	702,997	195,384	362,485	2,138,581
Capital stock issued	8	—	—	—	—	—	8
Capital stock redeemed	(27)	—	—	—	—	—	(27)
Preferred stock issued	—	—	—	—	112,424	—	112,424
Preferred stock dividends	—	—	—	(22,466)	—	—	(22,466)
Cash patronage and redemption of member equities	—	(187,285)	—	—	—	—	(187,285)
Redemption included in prior year's liabilities	—	93,672	—	—	—	—	93,672
Dividends to noncontrolling interest	—	—	—	—	—	(74,912)	(74,912)
Purchase of noncontrolling interest	—	—	(1,188)	(3,380)	—	(5,675)	(10,243)
Other, net	—	(4,747)	—	4,784	—	3,768	3,805
2016 earnings, as applied	—	181,977	—	62,960	—	74,962	319,899
Other comprehensive earnings (loss), net of income taxes	—	—	5,305	—	—	4,486	9,791
Patronage refunds payable	—	(113,996)	—	—	—	—	(113,996)
Balance, December 31, 2016	\$785	\$1,072,846	\$(222,197)	\$744,895	\$307,808	\$365,114	\$2,269,251

See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(\$ in thousands in tables)

1. NATURE OF OPERATIONS AND BASIS OF PRESENTATION

Nature of Operations

Land O'Lakes, Inc. ("Land O'Lakes" or the "Company") is a diversified member-owned food and agricultural cooperative serving agricultural producers throughout the United States. Land O'Lakes manages its business through its three segments: Dairy Foods, Feed and Crop Inputs. Through the Dairy Foods segment, Land O'Lakes procures approximately 12.6 billion pounds of member milk annually and markets premium butter, spreads, cheese, refrigerated desserts and other dairy products. Feed, through Purina Animal Nutrition LLC ("Purina"), develops, produces, markets and distributes animal feed to both the lifestyle and livestock animal markets. Crop Inputs, which is primarily the operations of Winfield Solutions, LLC ("Winfield"), provides member cooperatives, farmers and ranchers with seed for a variety of crops (including corn, soybeans and alfalfa) and distributes crop protection products (including herbicides, pesticides, fungicides and adjuvants).

Basis of Presentation

The consolidated financial statements include the accounts of Land O'Lakes and its wholly owned and majority-owned subsidiaries. Intercompany transactions and balances have been eliminated.

The operations of Moark, LLC, a wholly owned subsidiary of the Company, are presented as discontinued operations in the consolidated statements of operations for all periods presented. The former assets comprising the disposal groups were sold in a series of transactions from December 2013 through June 2015. Unless otherwise stated, any reference to the consolidated statements of operations or consolidated balance sheet items in the notes to the consolidated financial statements refers to results from continuing operations. See Note 21 for further information.

2. SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates include, but are not limited to, allowance for doubtful accounts, sales returns and allowances, vendor rebates receivable, asset impairments, valuation of goodwill and indefinite-lived intangible assets, deferred tax valuation allowances, trade promotion and consumer incentives, and assumptions related to pension and other postretirement plans.

Revenue Recognition

The Company's revenues are derived from a wide range of products sold to a diversified base of customers. Revenue is recognized when the customer takes ownership and assumes risk of loss, collection of the relevant receivables is reasonably assured, persuasive evidence of an arrangement exists and the sales price is fixed or determinable. Sales include shipping and handling charges billed to customers and are reduced by customer incentives and trade promotion activities, which are based on estimated redemption rates, customer participation and performance levels, and historical experience. Estimated product returns in the Company's Crop Inputs segment are deducted from sales at the time of shipment based on various factors including historical returns and market trends and conditions.

The Company periodically enters into prepayment contracts with customers in the Crop Inputs and Feed segments and receives advance payments for product to be delivered in future periods. These payments are recorded as customer advances in the consolidated balance sheet. Revenue associated with customer advances is deferred and recognized as shipments are made and title, ownership and risk of loss pass to the customer.

Advertising and Promotion Costs

Advertising and promotion costs are expensed as incurred and included in selling, general and administrative expense in the consolidated statements of operations. Advertising and promotion costs were \$122.6 million, \$93.0 million and \$107.5 million in 2016, 2015 and 2014, respectively.

Research and Development

Expenditures for research and development are charged to selling, general and administrative expense in the year incurred. Total research and development expenses were \$84.6 million, \$78.5 million and \$75.5 million in 2016, 2015 and 2014, respectively.

Share-based Compensation

The Company offers a Value Appreciation Right ("VAR") Awards plan to certain eligible employees. Participants are granted an annual award of VAR units, which are not traditional stock. The Company measures its liability for this plan at intrinsic value.

Environmental Expenditures

Liabilities related to remediation of contaminated properties are recognized when the related remediation costs are considered probable and can be reasonably estimated. Estimates of environmental costs are based on current available facts, existing technology, undiscounted site-specific costs and currently enacted laws and regulations. Recoveries, if any, are recorded in the period in which recovery is received. Liabilities are monitored and adjusted as new facts or changes in law or technology occur.

Foreign Currency Translation

For all significant foreign operations, the functional currency is the local currency. Assets and liabilities of these operations are translated at the period-end exchange rates. Statement of operations and cash flow accounts are translated using the average exchange rates prevailing during the period. Translation adjustments are reflected within accumulated other comprehensive loss in consolidated statements of equity. Gains and losses from foreign currency transactions are included in net earnings for the period, except for gains and losses on investments in subsidiaries for which settlement is not planned for the foreseeable future and foreign exchange gains and losses on instruments designated as net investment hedges. These gains and losses are recorded in accumulated other comprehensive loss.

Income Taxes

Land O'Lakes is a nonexempt agricultural cooperative and is taxed on all nonmember earnings and any member earnings not paid or allocated to members by qualified written notices of allocation as that term is used in section 1388(c) of the Internal Revenue Code.

The Company recognizes interest and penalties related to unrecognized tax benefits as a component of income tax expense, when applicable. Deferred income tax assets and liabilities are established based on the difference between the financial statement and income tax carrying values of assets and liabilities using enacted tax rates.

Cash and Cash Equivalents

Cash and cash equivalents include short-term, highly liquid investments with original maturities of three months or less. When the amount of outstanding checks exceeds the cash deposited at a given bank they are recorded within accounts payable and within operating activities on the consolidated statements of cash flows.

Vendor Rebates Receivable

The Company receives vendor rebates primarily from seed and chemical suppliers. These rebates are usually covered by binding arrangements, which are signed agreements between the vendor and the Company, or published vendor rebate programs; but they can also be open-ended, subject to future definition or revisions. Rebates are recorded as earned when probable and reasonably estimable based on terms defined in binding arrangements, or, in the absence of such arrangements, when cash is received. Rebates covered by binding arrangements that are not probable and reasonably estimable are accrued when certain milestones are achieved. Because of the timing of vendor crop year programs relative to the Company's fiscal year end, a significant portion of rebates has been collected prior to the Company's year-end for the prior crop year. The actual amount of rebates recognized, however, can vary year over year, largely due to the timing of when binding arrangements are finalized.

Inventories

Inventories are valued at the lower of cost or market, with cost determined on an average cost basis.

Vendor Prepayments

The Company prepays a substantial amount for seed and crop protection products, which it will procure and sell at a later date. The Company also accepts prepayments from its customers, which may or may not exceed the amount of prepayment to its suppliers. In the event that one of the suppliers to whom a prepayment is made is unable to continue as a going concern or is otherwise unable to fulfill its contractual obligations, the Company may not be able to take delivery of all of the product for which it has made a prepayment and, as a trade creditor, may not be able to reclaim the remaining amounts of cash held by such supplier in its prepaid account.

As of December 31, 2016 and 2015, vendor prepayments for seed and crop protection products, which are presented as prepaid assets in the consolidated balance sheets, were \$1,668.0 million and \$1,564.7 million, respectively, most of which were concentrated with Monsanto Company.

Derivative Commodity Instruments

All derivatives are recognized on the consolidated balance sheets at fair value based on quoted market prices or our estimate of their fair value, and are recorded in either current or noncurrent assets or liabilities based on their maturity. The Company's commodity and foreign currency derivative instruments are not designated as hedges and changes in the fair values are recorded in net earnings. Gains or losses on derivative instruments reported in accumulated other comprehensive loss, such as interest rate swaps or net investment hedges, are reclassified to earnings in the period the hedged item affects earnings. If the underlying hedged transaction ceases to exist, any associated amounts reported in accumulated other comprehensive loss are reclassified to earnings at that time. Any ineffectiveness is recognized in earnings in the current period.

Investments

Investments in other cooperatives are stated at cost plus unredeemed patronage refunds received, or estimated to be received, in the form of capital stock and other equities. Estimated patronage refunds are not recognized for tax purposes until notices of allocation are received. Investments in less than 20%-owned companies are generally stated at cost as the Company does not have the ability to exert significant influence. The equity method of accounting is used for investments in other companies, including joint ventures, in which the Company has significant influence, but not control, and voting interests of 20% to 50%. Investments with voting interests that exceed 50% are consolidated. Significant investments, whether accounted for under the cost or equity method, are reviewed regularly to evaluate if they have experienced an other than temporary decline in fair value.

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation is calculated using the straight-line method over the estimated useful life (10 to 30 years for land improvements and buildings and building equipment, three to 10 years for machinery and equipment, and three to seven years for software) of the respective assets. Accelerated methods of depreciation are used for income tax purposes.

Costs associated with software developed for internal use are capitalized when both the preliminary project stage is completed and it is probable that computer software being developed will be completed and placed in service. Capitalized costs include only external direct costs of materials and services consumed in developing or obtaining internal-use software, payroll and other related costs for employees who are directly associated with and who devote time to the internal-use software project and interest costs incurred while developing internal-use software. The Company ceases capitalization of such costs no later than the point at which the project is substantially complete and ready for its intended use.

Goodwill and Other Intangible Assets

Goodwill represents the excess of the purchase price of an acquired entity over the amounts assigned to assets acquired and liabilities assumed.

Other intangible assets consist primarily of trademarks, patents, customer relationships and agreements not to compete. Certain trademarks are not amortized because they have indefinite lives. The remaining other intangible assets are amortized using either the straight-line method or an accelerated amortization method over their estimated useful lives, ranging from three to 25 years.

Recoverability of Goodwill and Other Long-lived Assets

The test for goodwill impairment is performed on at least an annual basis. The Company has the option to first perform a qualitative assessment before calculating the fair value of the reporting unit in the first step. If the Company determines, on the basis of qualitative factors, that the fair value of a reporting unit is not more likely than not less than the carrying amount, the two-step impairment test is unnecessary. Otherwise, further testing would be needed.

The Company has elected to perform a qualitative assessment on Villa Crop Protection and FLM+ reporting units within the Corporate and Other reporting segment. The two-step quantitative analysis was performed for other reporting units. The first step is a comparison of the fair value of the reporting unit with its carrying amount, including goodwill. If this step reflects impairment, then the loss would be measured in the second step as the excess of recorded goodwill over its implied fair value. Implied fair value is the excess of fair value of the reporting unit over the fair value of all identified assets and liabilities. The test for impairment of indefinite-lived intangible assets is performed on at least an annual basis. The Company deems indefinite-lived intangible assets to be impaired if the carrying amount of an asset exceeds its fair value. The fair value of the Company's indefinite-lived trademarks is determined using a discounted cash flow model with assumed royalty fees and sales projections. The Company tests the recoverability of all other long-lived asset groups whenever events or changes in circumstances indicate that expected future undiscounted cash flows might not be sufficient to support the carrying amount of asset groups. The Company deems these other asset groups to be potentially impaired if a forecast of undiscounted future operating cash flows is less than its carrying amount. If these other asset groups were determined to be potentially impaired, the loss is measured as the amount by which the carrying value of the asset exceeds its fair value. While the Company currently believes that goodwill, indefinite-lived trademarks and other long-lived assets are not impaired, materially different assumptions regarding the

future performance of the businesses could result in significant impairment losses.

3. RECENT ACCOUNTING PRONOUNCEMENTS

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers* (ASC Topic 606), which was the result of a joint project by the FASB and International Accounting Standards Board to clarify the principles for recognizing revenue and to develop a common revenue standard for U.S. generally accepted accounting principles and international financial reporting standards. The new standard requires companies to recognize revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration to which the company expects to be entitled in exchange for those goods and services. The new standard will also result in enhanced disclosures about revenue, provide guidance for transactions that were not previously addressed comprehensively, and improve guidance for multiple-element arrangements. In August 2015, the FASB issued ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*. The standard is effective for annual reporting periods beginning after December 15, 2017 for public entities and December 15, 2018 for nonpublic entities, with early adoption permitted for periods beginning after December 15, 2016. Nonpublic entities have the option to adopt at the same time as public entities. In March, April, May, and December 2016, the FASB issued ASU No. 2016-08, *Principal versus Agent Considerations (Reporting Revenue Gross versus Net)*; ASU No. 2016-10, *Identifying Performance Obligations and Licensing*; ASU No. 2016-12, *Narrow-Scope Improvements and Practical Expedients*, and ASU No. 2016-20, *Technical Corrections and Improvements to Topic 606*, respectively, which amend ASU No. 2014-09. These amendments include clarification of principal versus agent guidance in situations in which a revenue transaction involves a third party in providing goods or services to a customer. In such circumstances, an entity must determine whether the nature of its promise to the customer is to provide the underlying goods or services (i.e., the entity is the principal in the transaction) or to arrange for the third party to provide the underlying goods or services (i.e., the entity is the agent in the transaction). The amendments clarify, in terms of identifying performance obligations, how entities would determine whether promised goods or services are separately identifiable from other promises in a contract and, therefore, would be accounted for separately. The guidance allows entities to disregard goods or services that are immaterial in the context of a contract and provides an accounting policy election to account for shipping and handling activities as fulfillment costs rather than as additional promised services. With regard to the licensing, the amendments clarify how an entity would evaluate the nature of its promise in granting a license of intellectual property, which determines whether the entity recognizes revenue over time or at a point in time. The amendments address implementation issues relative to transition (adding a practical expedient for contract modifications and clarifying what constitutes a completed contract when employing full or modified retrospective transition methods), collectability, noncash consideration, and the presentation of sales and other similar-type taxes (allowing entities to exclude sales-type taxes collected from transaction price). Finally, the amendments address certain corrections and clarifications to increase stakeholders' awareness of the proposals and to expedite improvements. The Company is currently assessing the impact on its consolidated financial statements and disclosures with focus on principal versus agent considerations, repurchase agreements, and determination of performance obligations. The Company has not selected a transition method.

In April 2015, the FASB issued ASU 2015-03, *Simplifying the Presentation of Debt Issuance Costs*, which amended ASC Subtopic 835-30, *Interest - Imputation of Interest*. This guidance requires

that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of the related debt liability. We adopted this standard as of January 1, 2016. The adoption of this guidance did not have a material impact on our consolidated financial position.

Also in 2015, the SEC issued a Staff Announcement that was later codified through ASU 2015-15, *Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements*. This guidance states that entities may present debt issuance costs related to line-of-credit arrangements as an asset and subsequently amortize over the term of the arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. The adoption of this ASU will have no effect on the Company's financial statements, as debt financing costs associated with line-of-credit arrangements are recorded as assets and amortized ratably over the term of the arrangement.

In July 2015, the FASB issued ASU 2015-11, *Simplifying the Measurement of Inventory*, which requires inventory to be carried at the lower of cost or net realizable value if the FIFO or average cost method is used. This standard is effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2016, with early adoption permitted. Accordingly, Land O'Lakes adopted this standard on January 1, 2017. The adoption of this guidance did not have a material impact on our financial statements and disclosures.

In January 2016, the FASB issued ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*. The updated guidance enhances the reporting model for financial instruments, which includes amendments to address aspects of recognition, measurement, presentation and disclosure. The standard is effective for public companies for fiscal years beginning after December 15, 2017. For all other entities, it is effective for fiscal years beginning after December 15, 2018, and interim periods in fiscal years beginning after December 15, 2019. Nonpublic companies may early adopt the standard at the effective date for public companies. The Company is currently assessing the impact of this ASU on its consolidated financial statements and disclosures.

In February 2016, the FASB issued ASU 2016-02, *Leases* (ASC Topic 842), which replaces the existing guidance in ASC Topic 840, *Leases*. The amendments within this ASU introduce a lessee model requiring entities to recognize assets and liabilities for most leases, but continue recognizing the associated expenses in a manner similar to existing accounting guidance. This ASU does not make fundamental changes to existing lessor accounting; however, it does modify what constitutes a sales-type or direct financing lease and the related accounting, and aligns a number of the underlying principles with those of the new revenue standard, ASU No. 2014-09. The guidance also eliminates existing real estate-specific provisions and requires expanded qualitative and quantitative disclosures. Entities are required to apply the standard's provisions using a modified retrospective approach at the beginning of the earliest comparative period presented in the year of adoption. The standard is effective for public companies for fiscal years beginning after December 15, 2018. For all other entities, it is effective for fiscal years beginning after December 15, 2019, and interim periods in fiscal years beginning after December 15, 2020. Early application of the amendments in this Update is permitted for all entities. The Company is currently assessing the impact of this ASU on its consolidated financial statements and disclosures.

In June 2016, the FASB issued ASU 2016-13, *Measurement of Credit Losses on Financial Instruments*. The amendments in this ASU introduce a new approach, based on expected losses, to estimate credit losses on certain types of financial instruments. This ASU is intended to provide financial statement users with more decision-useful information about the expected credit losses associated with most financial assets measured at amortized cost and certain other instruments, including trade and other receivables, loans, held-to-

maturity debt securities, net investments in leases, and off-balance-sheet credit exposures. Entities are required to apply the standard's provisions as a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. The standard is effective for public companies for fiscal years beginning after December 15, 2019. For all other entities, it is effective for fiscal years beginning after December 15, 2020, and interim periods in fiscal years beginning after December 15, 2020. The Company is currently assessing the impact of this ASU on its consolidated financial statements and disclosures.

In August 2016, the FASB issued ASU 2016-15, *Classification of Certain Cash Receipts and Cash Payments*. This ASU is intended to reduce existing diversity in practice in how certain cash receipts and payments are presented and classified in the statement of cash flows. The standard is effective for public companies for fiscal years beginning after December 15, 2017. For all other entities, it is effective for fiscal years beginning after December 15, 2018, and interim periods in fiscal years beginning after December 15, 2020. Early adoption is permitted for all entities. Accordingly, we have elected to early adopt this standard. The adoption of this guidance did not have a material impact on our consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, *Simplifying the Test for Goodwill Impairment*, which removes Step 2 of the goodwill impairment test. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The standard is effective for public entities that are SEC filers for fiscal years beginning after December 15, 2019, other public entities for fiscal years beginning after December 15, 2020 and for all other entities for fiscal years beginning after December 15, 2021, with early adoption permitted for goodwill impairment tests performed on testing dates after January 1, 2017. The Company is currently evaluating the effect that this guidance will have on the consolidated financial statements.

4. BUSINESS COMBINATIONS

In January 2016, the Company acquired a dairy plant in Hillsboro, WI, to expand butter manufacturing capabilities. In August 2016, the Company acquired Ceres, Inc., a forage seed development company. The Company acquired Ceres to extend the forage business by gaining access to elite gene candidates, obtain access to gene editing expertise and add global flexibility in corn silage, forage sorghum and alfalfa. The following table summarizes the recognized amounts of identifiable assets and liabilities acquired related to these acquisitions based on management estimates:

Current assets	\$2,608
Property, plant and equipment	15,580
Intangible assets	10,385
Current liabilities	(4,028)
Other assets and liabilities, net	(837)
Total fair value of identifiable asset and liabilities	23,708
Fair value of other non-cash consideration	2,649
Purchase price, net of cash assumed	29,380
Goodwill	\$8,321

The goodwill related to the Hillsboro dairy plant has been assigned to the Dairy Foods segment and goodwill resulting from the Ceres, Inc. acquisition was assigned to the Crop Inputs segment.

In June 2015, the Company entered into definitive agreements with United Suppliers, Inc. ("United Suppliers"), a cooperative headquartered in Iowa providing crop protection, crop nutrient and seed products to retail vendors in the upper Midwest, many

of which are farmer-owned cooperatives. In the current industry environment of rapid consolidation, the transaction with United Suppliers brings together complementary customer bases, product lines and capabilities that together will strengthen the Company's position as a leading agriculture inputs company with a broader customer reach. The definitive agreements contemplated a two phase transaction.

In the first phase, completed in October 2015, United Suppliers transferred substantially all of its crop protection and seed business assets ("United CP") to Winfield Solutions, LLC in exchange for a minority ownership interest in Winfield Solutions, LLC, which is now a jointly owned purchasing cooperative. United Suppliers' noncontrolling interest entitles them to the earnings generated in Winfield from the former United CP members' business with Winfield. United Suppliers will receive patronage from Winfield equal to these earnings.

The following table summarizes the recognized amounts of identifiable assets and liabilities related to the first phase of this acquisition based on management estimates:

Receivables	\$295,937
Inventories	376,640
Property, plant and equipment	29,961
Intangible assets	98,000
Accounts payable	(233,591)
Accrued liabilities	(64,608)
Deferred tax liabilities	(38,607)
Other assets and liabilities, net	3,780
Total fair value of identifiable asset and liabilities	467,512
Fair value of debt assumed, net of cash on hand	201,802
Fair value of noncontrolling interest	338,347
Goodwill	\$72,637

Goodwill was calculated as the excess of the purchase price over the fair value of identifiable assets and liabilities acquired. The primary item that generated goodwill was the premium paid for expected synergies. The goodwill related to the United CP business combination has been assigned to the Crop Inputs segment. The resulting goodwill is not deductible for tax purposes. Acquired intangible assets consist of customer relationships and trade names, which are being amortized over their estimated useful life of 10 years.

In the second phase, which must be completed no later than October 2017, the remaining operations of United Suppliers, primarily the crop nutrient business and the investment in Winfield Solutions, LLC, will be merged into Winfield. The purchase price in these transactions will consist of the issuance of Land O'Lakes shares and patron's equities to or for the benefit of the United Suppliers members, on a dollar-for-dollar basis, in exchange for patron's equities held by the United Suppliers members.

In October 2015, the Company acquired 52.5% of Villa Crop Protection (Villa), a South African crop protection business, for ZAR 451 million (approximately \$34 million at the acquisition date). The Company acquired Villa to expand its geography into Africa and add the experience of the South Africa-based workforce. In addition, Winfield could provide proprietary products and insights. The remaining ownership interest is recorded as a noncontrolling interest. Concurrently, Land O'Lakes also issued ZAR 256 million of floating-rate debt at a rate of JIBAR plus 2.5% in order to partially finance the acquisition (approximately \$19 million at the acquisition date), which is accounted for as a hedge in the net investment of a foreign subsidiary.

The following table summarizes the recognized amounts of identifiable assets and liabilities related to the Villa acquisition based on management estimates:

Receivables	\$33,558
Inventories	39,847
Property, plant and equipment	10,529
Intangible assets	20,941
Accounts payable	(53,549)
Deferred tax liabilities	(7,834)
Other assets and liabilities, net	(978)
Total fair value of identifiable asset and liabilities	42,514
Long term debt, including current portion	2,140
Fair value of noncontrolling interest	29,505
Purchase price, net of cash assumed	34,118
Goodwill	\$23,249

Goodwill was calculated as the excess of the purchase price over the fair value of identifiable assets and liabilities acquired. The primary item that generated goodwill was the premium paid for expected synergies and the experience of the South Africa-based workforce. The goodwill related to the Villa business combination has been assigned to the Corporate and Other segment. The resulting goodwill is not deductible for tax purposes. Acquired intangible assets consist of customer relationships, which are being amortized over their estimated useful life of 20 years, trade names, which are being amortized over their estimated useful life of five years, and product registrations, which are being amortized over their estimated useful life of 20 years. In 2016, the Company acquired an additional 12.98% of Villa's shares from the noncontrolling interest owners for \$9.5 million.

5. RECEIVABLES

A summary of receivables at December 31 is as follows:

	2016	2015
Trade accounts	\$1,373,813	\$1,242,717
Notes and contracts	102,828	150,771
Vendor rebates	95,211	86,520
Other	90,174	104,695
Total receivables before allowance	1,662,026	1,584,703
Less allowance for doubtful accounts	(11,446)	(9,175)
Total receivables, net	\$1,650,580	\$1,575,528

A substantial portion of the Company's receivables are concentrated in agriculture as well as in the wholesale and retail food industries. Collection of receivables may be dependent upon economic returns in these industries. The Company's credit risks are continually reviewed, and management believes that adequate provisions have been made for doubtful accounts.

The Company operates a wholly owned subsidiary, LOL Finance Co., which provides operating loans and facility financing to farmers and livestock producers, which are collateralized by the real estate, equipment and livestock of their farming operations. These loans, which relate primarily to dairy, swine, cattle and other livestock production, are presented as notes and contracts for the current portion and as other assets for the noncurrent portion. Total notes and contracts were \$195.7 million at December 31, 2016 and \$221.5 million at December 31, 2015, of which \$101.1 million and \$119.1 million, respectively, were the current portions included in the table above. Commitments to extend credit totaled \$56.7 million and

\$41.5 million at December 31, 2016 and 2015, respectively.

A loan is considered impaired, based on current information or events, if it is probable that LOL Finance Co. will be unable to collect all amounts due according to the contractual terms of the loan. Loans reviewed for impairment include loans that are past due, nonperforming or in bankruptcy and all troubled debt restructurings. As of December 31, 2016 and 2015, LOL Finance Co. had a recorded investment of \$24.7 million and \$22.6 million in impaired loans, respectively. The Company considers a loan past due if any portion of a contractual payment is due and unpaid for more than 60 days. For both impaired loans and loans past due, recognition of interest income is suspended and the loan is placed on nonaccrual status when management determines that collection of future principal and interest payments is not probable (generally after 120 days past due). Interest income on nonaccrual loans is recorded on a cash basis. Accrual is resumed when the loan becomes contractually current and/or collection doubts are removed.

An allowance for loan losses is maintained to provide for probable losses inherent in the loan portfolio, including the effects of impaired loans. LOL Finance Co. evaluates the collectability of loans on a specific identification basis, based on the amount and quality of the collateral obtained, and records specific loan loss reserves when appropriate. A general reserve is also maintained based on a periodic analysis of the loan portfolio and management's consideration of general economic conditions, loan portfolio composition and historical loss experience in establishing the reserves. LOL Finance Co.'s total loan loss reserves were \$2.1 million and \$1.9 million at December 31, 2016 and 2015, respectively.

In October 2015, the Company entered into a subordinated revolving promissory note with United Suppliers. United Suppliers may borrow up to \$90.0 million until January 1, 2019. As of December 31, 2016 and 2015, the balance on this revolving promissory note was \$0 and \$30.0 million, respectively.

Vendor rebate receivables are primarily generated as a result of seed and chemical purchases. These receivables can vary significantly from period to period based on a number of factors, including, but not limited to, specific terms and conditions set forth in the underlying agreements, the timing of when such agreements become binding arrangements, and the timing of cash receipts. The Company may, on occasion, enter into inventory purchase commitments with vendors in order to achieve an optimal rebate return.

Other receivables include margin receivables from commodity brokers on open derivative instruments, interest and insurance settlements.

6. INVENTORIES

A summary of inventories at December 31 is as follows:

	2016	2015
Raw materials	\$279,985	\$265,644
Work in process	2,518	3,140
Finished goods	1,903,503	1,814,317
Total inventories	\$2,186,006	\$2,083,101

7. INVESTMENTS

A summary of investments at December 31 is as follows:

	2016	2015
Eggland's Best, LLC	\$131,162	\$132,812
GreenPoint Ag, LLC	42,875	42,266
Ag Processing Inc	26,304	25,956
Agri-AFC, LLC	23,829	21,707
Other – principally cooperatives and joint ventures	72,706	75,258
Total investments	\$296,876	\$297,999

As of December 31, 2016, the Company maintained a 50 percent voting interest in numerous joint ventures, including GreenPoint Ag, LLC and Agri-AFC, LLC in Crop Inputs, and Eggland's Best, LLC in Dairy Foods. The Company also maintained a 35 percent voting interest in AFP advanced food products LLC in Dairy Foods through December 31, 2015, on which date the ownership interest was sold for \$62.0 million, resulting in a gain of \$14.3 million. The Company's largest investment in other cooperatives as of December 31, 2016 was Ag Processing Inc.

The Company reviews its investments for indicators of impairment on a periodic basis or if an event occurs or circumstances change to indicate the carrying amount may be other than temporarily impaired. When such indicators are present, the Company performs an impairment analysis. If a decline in fair value below the carrying value is determined to be other than temporary, the carrying value is written down to fair value and the amount of the write-down is included in the consolidated statement of operations.

8. PROPERTY, PLANT AND EQUIPMENT

A summary of property, plant and equipment, which includes assets under capital leases, at December 31 is as follows:

	2016	2015
Machinery and equipment	\$1,116,414	\$1,036,064
Buildings and building equipment	781,350	680,967
Land and land improvements	110,274	105,079
Software	250,049	220,535
Construction in progress	157,577	142,007
	2,415,664	2,184,652
Less: accumulated depreciation	1,235,413	1,108,794
Total property, plant and equipment, net	\$1,180,251	\$1,075,858

9. GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill

Change in the carrying amount of goodwill by segment for the years ended December 31, 2016 and 2015 are as follows:

	Dairy Foods	Feed	Crop Inputs	Corporate and Other	Total
Balance at December 31, 2014	\$169,629	\$145,622	\$73,240	\$11,188	\$399,679
Acquisitions	—	—	72,637	27,793	100,430
Foreign currency translation	—	—	(693)	(4,750)	(5,443)
Balance at December 31, 2015	\$169,629	\$145,622	\$145,184	\$32,231	\$494,666
Acquisitions (a)	1,530	—	6,764	—	8,294
Foreign currency translation	—	—	(630)	2,769	2,139
Balance at December 31, 2016	\$171,159	\$145,622	\$151,318	\$37,000	\$505,099

(a) Additions to goodwill were primarily the result of the business combinations discussed in Note 4.

Other Intangible Assets

A summary of other intangible assets at December 31 is as follows:

	2016	2015
Amortized other intangible assets:		
Dealer networks and customer relationships less accumulated amortizations of \$40,347 and \$24,819, respectively	\$115,962	\$130,510
Intellectual property, less accumulated amortization of \$12,398 and \$8,539, respectively	210,336	14,313
Trademarks, less accumulated amortization of \$4,192 and \$1,802, respectively	18,090	20,339
Other intangible assets, less accumulated amortization of \$13,704 and \$10,664, respectively	14,917	15,982
Total amortized other intangible assets	359,305	181,144
Total indefinite-lived intangible assets	96,910	86,525
Total other intangible assets	\$456,215	\$267,669

Amortization expense for the years ended December 31, 2016, 2015 and 2014 was \$24.8 million, \$11.8 million and \$9.5 million, respectively. The weighted-average life of the intangible assets subject to amortization is approximately 11 years and ranges from three to 25 years. Indefinite-lived intangible assets relate to trademarks in Feed and Dairy Foods and in-process research and development in Crop Inputs. The majority of the amortizing other intangible assets relate to Feed and Crop Inputs. The estimated amortization expense related to other intangible assets subject to amortization for the next five years is as follows:

Year	Amount
2017	\$30,648
2018	34,082
2019	34,159
2020	35,634
2021	34,774

In May 2016, the Company acquired a third-party's interest in an existing transgenic alfalfa trait revenue sharing arrangement for approximately \$200.0 million in cash. Prior to the transaction, the Company owned 50% of the patents and earnings related to the traits developed under the arrangement.

10. ACCRUED LIABILITIES

A summary of accrued liabilities at December 31 is as follows:

	2016	2015
Employee compensation and benefits	\$200,182	\$186,368
Unrealized hedging losses and deferred option premiums received	13,494	23,556
Marketing programs and customer incentives	178,605	148,990
Other	218,581	273,440
Total accrued liabilities	\$610,862	\$632,354

Other accrued liabilities primarily include accrued taxes, interest, self-insurance reserves and environmental liabilities.

11. DEBT OBLIGATIONS

The Company's primary sources of debt and liquidity at December 31, 2016 included a \$700.0 million receivables securitization facility, of which \$325.0 million was available, an undrawn \$575.0 million revolving credit facility, \$170.0 million in 6.67%-6.77% private placement notes, \$300.0 million in 6.00% senior notes, a \$150.0 million term loan with a variable rate based on LIBOR, swapped to a fixed rate of 4.44% and \$200.0 million of 7.45% capital debt securities.

Notes and Short-term Obligations

The Company had notes and short-term obligations at December 31, 2016 and 2015 of \$485.3 million and \$114.7 million, respectively. The Company maintains credit facilities to finance its short-term borrowing needs, including a revolving credit facility and a receivables securitization facility.

In March, 2015, the Company amended its existing revolving credit facility to increase the borrowing capacity from \$475.0 million to \$575.0 million and to extend the term, and amended the existing \$500.0 million receivables securitization facility to extend the term. In October 2015, the Company also amended its revolving credit facility and receivables securitization facility to allow for the merger with United CP and increase capacity on the receivable securitization facility by \$200.0 million, from \$500.0 million to \$700.0 million.

The Company's \$700.0 million receivables securitization facility arranged by CoBank matures in March 2020. The Company and certain wholly owned consolidated entities sell Dairy Foods, Feed, Crop Inputs and certain other receivables to LOL SPV, LLC, a wholly

owned, consolidated special purpose entity (the "SPE"). The SPE enters into borrowings that are effectively secured solely by the SPE's receivables. The SPE has its own separate creditors that are entitled to be satisfied out of the assets of the SPE prior to any value becoming available to the Company. Borrowings under the receivables securitization facility bear interest at LIBOR plus 125 basis points. At December 31, 2016 and 2015, the SPE's receivables were \$1,259.1 million and \$768.3 million, respectively. At December 31, 2016 and 2015, outstanding balances under the facility, recorded as notes and short-term obligations, were \$375.0 million and \$0, respectively, and availability was \$325.0 million and \$700.0 million, respectively.

The Company maintains a \$575.0 million revolving credit facility (the "Revolving Credit Facility"). Under the terms of the Revolving Credit Facility, lenders have committed to make advances and issue letters of credit until March 2020 in an aggregate amount not to exceed \$575.0 million. Borrowings bear interest at a variable rate (either LIBOR or an Alternative Base Rate) plus an applicable margin. The margin is dependent upon the Company's leverage ratio. Based on the leverage ratio at the end of December 2016, the LIBOR margin for the Revolving Credit Facility was 137.5 basis points. Spreads for the Alternative Base Rate are 100 basis points lower than the applicable LIBOR spreads. LIBOR may be set for one-, two-, three- or six-month periods at the Company's election. At December 31, 2016, there was \$0 outstanding on the Revolving Credit Facility and \$549.2 million was available after giving effect to \$25.8 million of outstanding letters of credit, which reduced availability. At December 31, 2015, there was \$0 outstanding on the Revolving Credit Facility and \$550.3 million was available after giving effect to \$24.7 million of outstanding letters of credit, which reduced availability.

The Company also had \$108.8 million and \$103.3 million as of December 31, 2016 and 2015, respectively, of notes and short-term obligations outstanding under a revolving line of credit and other borrowing arrangements for LOL Finance Co. that provides operating loans and facility financing to farmers and livestock producers. These outstanding notes and short-term obligations are collateralized by LOL Finance Co.'s loans receivable from the farmers and livestock producers.

The weighted-average interest rate on short-term borrowings and notes outstanding at December 31, 2016 and 2015 was 2.31% and 1.72%, respectively.

Long-term Debt

A summary of long-term debt at December 31 is as follows:

	2016	2015
Private Placement Notes — due 2016–2021 (6.24%–6.77%)	\$170,000	\$325,000
Senior Notes — due 2022 (6.00%)	300,000	300,000
Capital Securities — due 2028 (7.45%)	200,000	200,000
Term A Loan — due 2021 (variable rate based on LIBOR, swapped into a fixed rate of 4.44%)	150,000	150,000
South American rand denominated term loan — due 2018 (variable rate of JIBAR + 2.5%)	18,676	16,476
Other debt, including discounts and fair value adjustments	44,553	55,763
Total debt	883,229	1,047,239
Less current portion	6,243	166,128
Total long-term debt	\$876,986	\$881,111

In October 2015, Land O'Lakes entered into a South African rand (ZAR) 256 million term loan at a rate of 3-month JIBAR plus 2.5%, or 9.858% at December 31, 2016, in order to partially finance the acquisition of Villa (approximately \$19 million at the transaction date), which is accounted for as a hedge in the net investment of a foreign subsidiary. The term loan is payable in October 2018.

On November 7, 2012, the Company issued \$300.0 million of 6.00% senior notes (the "Senior Notes") that mature on November 15, 2022.

In August 2011, the Company entered into a \$150.0 million Term A Loan (the "Term A Loan"), which is secured on a pari passu basis with the Revolving Credit Facility and the Private Placement Notes in the event the Company does not maintain an investment grade rating from two nationally recognized rating agencies. The Term A Loan bears interest at a variable rate based on LIBOR plus a margin of 150 basis points. As of December 31, 2016, the floating interest rate of the Term A Loan was 2.17%. At its inception, the Term A Loan was hedged via a floating-to-fixed interest rate swap, which effectively converts the floating rate into a fixed rate of approximately 4.44%, as discussed in Note 13.

In December 2009, the Company entered into a Note Purchase Agreement with certain institutional lenders that governs the issuance of \$325.0 million of privately placed notes (the "Private Placement Notes"). The Private Placement Notes were issued and sold in three series, as follows: 1) \$155.0 million aggregate principal amount of 6.24% notes, due December 2016, 2) \$85.0 million aggregate principal amount of 6.67% notes, due December 2019 and 3) \$85.0 million aggregate principal amount of 6.77% notes, due December 2021. The Private Placement Notes are secured on a pari passu basis with the debt issued under the Revolving Credit Facility (described above), in the event the Company does not maintain an investment grade rating from two nationally recognized rating agencies. The Note Purchase Agreement imposes certain restrictions on the Company and certain of its subsidiaries, including, but not limited to, the Company's ability to incur additional indebtedness, make payments to members, make investments, grant liens, sell assets and engage in certain other activities. As of December 31, 2016 and 2015, outstanding borrowings were \$170.0 million and \$325.0 million, respectively.

In March 1998, the Company issued \$200.0 million of Capital Securities through a wholly owned trust subsidiary. The securities are subordinated to all other debt and bear interest at 7.45% maturing on March 15, 2028.

As of December 31, 2016 and 2015, the Company is in compliance with all its debt covenants. At December 31, 2016, the Company had investment grade ratings from three nationally recognized rating agencies.

The maturity of long-term debt, excluding fair value adjustments and discounts, for the next five years and thereafter is summarized in the table below:

Year	Amount
2017	\$6,243
2018	23,895
2019	89,706
2020	2,646
2021	237,502
2022 and thereafter	520,054

Interest paid on debt obligations was \$75.4 million, \$62.9 million and \$74.4 million in 2016, 2015 and 2014, respectively.

12. ACCUMULATED OTHER COMPREHENSIVE LOSS

The components of accumulated other comprehensive loss as of December 31 are as follows:

	Pension and other postretirement adjustments (a)	Cash flow hedge adjustments (b)	Foreign currency translation adjustments	Other comprehensive loss attributable to noncontrolling interests	Accumulated other comprehensive loss
Balance at December 31, 2013	\$(126,884)	\$(2,783)	\$386	\$135	\$(129,146)
Other comprehensive (loss) earnings	(178,259)	(6,841)	(5,010)	933	(189,177)
Income tax benefit (expense)	68,184	2,616	1,916	(357)	72,359
Other comprehensive (loss) earnings before reclassifications, net of tax	(110,075)	(4,225)	(3,094)	576	(116,818)
Amounts reclassified into earnings	18,727	832	—	40	19,599
Income tax expense on reclassified amounts	(7,163)	(318)	—	(15)	(7,496)
Balance at December 31, 2014	\$(225,395)	\$(6,494)	\$(2,708)	\$736	\$(233,861)
Other comprehensive (loss) earnings	(9,157)	(1,849)	(15,987)	4,556	(22,437)
Income tax benefit (expense)	3,503	707	1,679	389	6,278
Other comprehensive (loss) earnings before reclassifications, net of tax	(5,654)	(1,142)	(14,308)	4,945	(16,159)
Amounts reclassified into earnings	36,598	1,619	—	173	38,390
Income tax expense on reclassified amounts	(13,999)	(619)	—	(66)	(14,684)
Balance at December 31, 2015	\$(208,450)	\$(6,636)	\$(17,016)	\$5,788	\$(226,314)
Other comprehensive (loss) earnings	(21,725)	463	5,704	(4,583)	(20,141)
Income tax benefit (expense)	8,310	(177)	978	32	9,143
Other comprehensive (loss) earnings before reclassifications, net of tax	(13,415)	286	6,682	(4,551)	(10,998)
Purchase of noncontrolling interest	—	—	—	(1,188)	(1,188)
Amounts reclassified into earnings	23,908	2,389	—	105	26,402
Income tax expense on reclassified amounts	(9,145)	(914)	—	(40)	(10,099)
Balance at December 31, 2016	\$(207,102)	\$(4,875)	\$(10,334)	\$114	\$(222,197)

(a) The reclassifications out of other comprehensive loss represent the amortization of the actuarial losses, transition obligation and prior service costs, which are included in the computation of net periodic pension cost. See Note 16 for additional details.

(b) Reclassifications out of other comprehensive loss for cash flow hedges are gains on the interest rate swap which are recorded in interest expense, net on the consolidated statements of operations.

13. DERIVATIVE INSTRUMENTS

Commodity Price and Foreign Currency Risk

The Company is exposed to the impact of price fluctuations in dairy and agriculture commodity inputs consumed in operations and the impact of fluctuations in the relative value of currencies. The Company periodically enters into derivative instruments in order to mitigate the effects of changing commodity prices and to mitigate its foreign currency risks.

In the normal course of operations, the Company purchases commodities such as: milk, butter, soybean oil and various energy needs ("energy") in Dairy Foods; soybean meal, corn and energy in Feed; and soybeans, corn and energy in Crop Inputs. The Company's commodity price risk management strategy is to use derivative instruments to reduce risk caused by volatility in commodity prices due to fluctuations in the market value of inventories and fixed or partially fixed purchase and sales contracts. The Company enters into futures, forward and options contract derivative instruments for periods consistent with the related underlying inventory and purchase and sales contracts. These contracts are not designated as hedges. The futures and option contracts are marked-to-market each month and unrealized hedging gains and losses are primarily recognized in cost of sales. The Company has established formal position limits to monitor its price risk management activities

and executes derivative instruments only with respect to those commodities that the Company consumes or produces in its normal business operations.

The unrealized (gains) and losses on derivative instruments related to commodity contracts and foreign currency exchange contracts not designated as hedging instruments for the year ended December 31 are as follows:

Derivatives not designated as hedging instruments

	Location	2016	2015	2014
Commodity derivatives	Cost of sales	\$(12,195)	\$(17,191)	\$32,912
Foreign currency exchange contracts	Cost of sales	777	443	(1,150)

With the 2015 acquisition of Villa, Land O'Lakes also has a net investment in a foreign subsidiary that is denominated in the South African rand. Concurrent with the acquisition, Land O'Lakes entered into a net investment hedge for a portion of its net investment in foreign operations denominated in rand by issuing ZAR 256 million of floating-rate debt. As of December 31, 2016, the Company had deferred foreign currency transaction gains of \$0.4 million and \$2.6 million, respectively, in accumulated other comprehensive loss associated with this hedging activity.

Interest Rate Risk

The Company is also exposed to interest rate volatility with regard to its variable rate debt. To manage its interest rate exposures, the Company entered into a \$150.0 million interest rate swap agreement in August 2011 to exchange the variable rate interest payment obligations related to the \$150.0 million Term A Loan for fixed rate interest payments. The Company has designated this interest rate swap as a cash flow hedging instrument. The effective date of the swap was August 12, 2011 and expires in August 2021. The swap agreement has an effective fixed interest rate of 4.44%. Effective gains and losses are deferred to accumulated other comprehensive income and reclassified into interest expense over the term of the underlying debt. Any ineffectiveness is recorded as interest expense, net. For the years ended December 31, 2016 and 2015, the Company recognized \$0 of hedge ineffectiveness. The amount of the existing losses at December 31, 2016 that are expected to be reclassified into the consolidated statements of operations within the next 12 months is \$1.0 million.

The Company is also exposed to interest rate volatility related to grower financing programs offered by Winfield. To manage this risk, the Company enters into interest rate swaps to exchange the variable rate payments for fixed payments. These contracts are not designated as hedging instruments. The unrealized gains on derivative instruments related to interest rate contracts not designated as hedging instruments for the year ended December 31 are as follows:

Derivatives not designated as hedging instruments

	Location	2016	2015	2014
Interest rate contracts	Interest expense, net	\$(736)	\$ —	\$ —

Derivative Instruments Additional Information

The notional or contractual amount of derivative instruments provides an indication of the extent of the Company's involvement in such instruments at that time, but does not represent exposure to market risk or future cash requirements under certain of these instruments. The following is the total absolute notional or contractual amount associated with our outstanding derivative instruments, excluding nonderivative instruments used as hedging instruments, at December 31:

Derivative instrument

	2016	2015
Commodity derivatives	\$385,073	\$428,996
Foreign currency exchange contracts	31,943	45,778
Interest rate swap – cash flow hedge	150,000	150,000
Interest rate contracts	200,000	—

The gross fair market value of all derivative instruments and their location in the consolidated balance sheet are shown by those in an asset or liability position and are further categorized by commodity, interest rate and foreign currency derivatives. The asset or liability positions of commodity and foreign currency derivatives not designated as hedging instruments are as follows:

Derivatives not designated as hedging instruments

	December 31, 2016		December 31, 2015	
	Asset Derivatives	Liability Derivatives	Asset Derivatives	Liability Derivatives
Commodity derivatives (a)	\$12,390	\$11,175	\$13,531	\$24,511
Foreign currency exchange contracts (a)	240	69	1,530	351
Interest rate contracts (a)	736	—	—	—
	\$13,366	\$11,244	\$15,061	\$24,862

(a) Asset derivative instruments are recorded in other current assets and other assets and liability derivative instruments are recorded in accrued liabilities and employee benefits and other liabilities in the consolidated balance sheets.

The asset or liability positions of interest rate derivatives designated as hedging instruments are as follows:

Derivatives designated as hedging instruments

	December 31, 2016		December 31, 2015	
	Asset Derivatives	Liability Derivatives	Asset Derivatives	Liability Derivatives
Interest rate swap – cash flow hedge (a)	\$ —	\$7,894	\$ —	\$10,746
	\$ —	\$7,894	\$ —	\$10,746

(a) Liability derivative instruments are recorded in accrued liabilities and employee benefits and other liabilities in the consolidated balance sheets.

The Company enters into derivative instruments with a variety of counterparties. These instruments are primarily purchased and sold through brokers and regulated commodity exchanges. By using derivative financial instruments to manage exposures to changes in commodity prices and exchange rates, the Company exposes itself to the risk that the counterparty might fail to perform its obligations under the terms of the derivative contracts. The Company mitigates this risk by entering into transactions with high-quality counterparties and does not anticipate any losses due to nonperformance. The Company manages its concentration of counterparty credit risk on derivative instruments prior to entering into derivative contracts by evaluating the counterparty's external credit rating, where available, as well as assessing other relevant information such as current financial statements, credit agency reports and/or credit references. As of December 31, 2016 and 2015, the maximum amount of loss that the Company would incur if the counterparties to derivative instruments fail to meet their obligations, not considering collateral received or netting arrangements, was \$13.4 million and \$15.1 million, respectively. The Company reviewed its counterparties and believes that a concentration of risk does not exist and that a failure of any or all counterparties would not have a material effect on the consolidated financial statements as of December 31, 2016.

The Company has master netting arrangements with brokers for its exchange-traded futures and options contracts, however, it does not elect to offset fair value amounts recognized for derivative instruments under such master netting arrangements with amounts recognized for margin balances due from or due to brokers. The gross derivative assets and liabilities presented on the Consolidated Balance Sheets and the amount eligible for offset under the master netting arrangements are presented in the following tables:

December 31, 2016				December 31, 2015			
	Gross Amounts Recognized on the Consolidated Balance Sheets	Gross Amounts Not Offset on the Consolidated Balance Sheets	Net		Gross Amounts Recognized on the Consolidated Balance Sheets	Gross Amounts Not Offset on the Consolidated Balance Sheets	Net
Assets:				Assets:			
Commodity derivatives	\$12,390	\$(9,407)	\$2,983	Commodity derivatives	\$13,531	\$(8,035)	\$5,496
Foreign currency exchange contracts	240	—	240	Foreign currency exchange contracts	1,530	—	1,530
Interest rate contracts	736	—	736	Total assets	\$15,061	\$(8,035)	\$7,026
Total assets	\$13,366	\$(9,407)	\$3,959	Liabilities:			
Liabilities:				Commodity derivatives	\$24,511	\$(8,035)	\$16,476
Commodity derivatives	\$11,175	\$(9,407)	\$1,768	Foreign currency exchange contracts	351	—	351
Foreign currency exchange contracts	69	—	69	Interest rate swap – cash flow hedge	10,746	—	10,746
Interest rate swap – cash flow hedge	7,894	—	7,894	Total liabilities	\$35,608	\$(8,035)	\$27,573
Total liabilities	\$19,138	\$(9,407)	\$9,731				

14. FAIR VALUE MEASUREMENTS

The carrying amounts and estimated fair values of the Company's financial instruments not carried at fair value on the consolidated balance sheets are as follows as of:

	December 31, 2016		December 31, 2015	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Loans receivable	\$193,516	\$191,733	\$219,619	\$218,289
Debt:				
Private Placement Notes, due 2016–2021	170,000	187,255	325,000	349,330
Senior Notes, due 2022	300,000	325,565	300,000	322,980
Capital Securities, due 2028	200,000	225,085	200,000	252,549
Term A Loan, due 2021	150,000	150,000	150,000	150,000

Financial derivative instruments are recorded at fair value in the consolidated financial statements.

The fair value of financial derivative instruments is determined using quoted prices in active markets or is derived from prices in underlying futures markets. The fair value of the interest rate swap was determined based on models that consider various assumptions, including time value, yield curves, as well as other relevant economic measures, which are inputs that are classified as Level 2 in the valuation hierarchy.

Net investment hedges that use foreign currency denominated debt to hedge the Company's net investment are not impacted by the fair value measurement standard, as the debt used as the hedging instrument is marked to a value with respect to changes in spot foreign currency exchange rates and not with respect to other factors that may impact fair value.

The fair value of loans receivable, which are loans made to farmers and livestock producers by the Company's financing subsidiary, was estimated using a present value calculation based on similar loans made or loans repriced to borrowers with similar credit risks. This methodology is used because no active market exists for these loans and the Company cannot determine whether the fair values presented would equal the value negotiated in an actual sale. Due to the estimated spread, the measurement uses significant other unobservable inputs (Level 3 in the fair value hierarchy). The Company manages its credit risk related to these loans by using established credit limits, conducting ongoing credit evaluation and account monitoring procedures, and securing collateral when deemed necessary. Negative economic factors that may impact farmers and livestock producers could increase the level of losses within this portfolio.

The fair value of fixed-rate long-term debt was estimated through a present value calculation based on available information on prevailing market interest rates for similar securities, which are other observable inputs classified as Level 2 in the valuation hierarchy.

The carrying value of financial instruments classified as current assets and current liabilities, such as cash and cash equivalents, trade receivables, accounts payable and notes and short-term obligations, approximate fair value due to the short-term maturity of the instruments. The Company invests its excess cash in deposits with major banks. The Company regularly evaluates its credit risk to the extent that financial instruments are concentrated in certain industries or with significant customers and vendors, including the collectability of receivables and prepaid deposits with vendors.

The valuation hierarchy categorizes the inputs used to measure fair value into three broad levels as follows:

Level 1: inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.

Level 3: inputs are unobservable inputs based on the Company's own assumptions used to measure assets and liabilities at fair value.

A financial asset or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

The following tables provide the assets and liabilities carried at fair value measured on a recurring basis:

	Fair Value Measurements at December 31, 2016 Using:					Fair Value Measurements at December 31, 2015 Using:			
	Fair value (a)	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)		Fair value (a)	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Commodity derivative assets	\$12,390	\$9,285	\$3,105	\$ —	Commodity derivative assets	\$13,531	\$11,310	\$2,221	\$ —
Commodity derivative liabilities	11,175	9,016	2,159	—	Commodity derivative liabilities	24,511	19,193	5,318	—
Interest rate swap liability – cash flow hedge	7,894	—	7,894	—	Interest rate swap liability – cash flow hedge	10,746	—	10,746	—
Foreign currency exchange contract assets	240	—	240	—	Foreign currency exchange contract assets	1,530	—	1,530	—
Foreign currency exchange contract liabilities	69	—	69	—	Foreign currency exchange contract liabilities	351	—	351	—
Interest rate contract asset	736	—	736	—					

(a) Companies that enter into master netting arrangements are permitted, but not required, to offset fair value amounts recognized for derivative instruments against the right to reclaim cash collateral or the obligation to return cash collateral. The Company has master netting arrangements with brokers for its exchange-traded futures and option contracts; however, it does not elect to offset fair value amounts recognized for derivative instruments under such master netting arrangements with amounts recognized for margin balances due from or due to brokers.

Since commodity derivative forward contracts and the foreign currency exchange forward contracts are not actively traded, they are priced at a fair value derived from an underlying futures market for the commodity or currency. Therefore, they have been categorized as Level 2. The puts, calls and commodity futures are measured at fair value based on quoted prices in active markets and as such are categorized as Level 1.

15. INCOME TAXES

For financial reporting purposes, income before income taxes includes the following components:

	2016	2015	2014
United States	\$349,508	\$341,533	\$267,612
Foreign	(2,013)	(4,287)	(3,158)
Total	\$347,495	\$337,246	\$264,454

The components of the income tax provision for the years ended December 31 are summarized as follows:

	2016	2015	2014
Current expense (benefit):			
Federal	\$14,471	\$29,407	\$(147)
Foreign	2,862	1,314	(550)
State	332	4,518	3,543
Total current expense	17,665	35,239	2,846
Deferred expense (benefit):			
Federal	10,579	4,397	9,101
Foreign	(2,228)	(429)	400
State	1,580	108	1,063
Total deferred expense	9,931	4,076	10,564
Income tax expense	\$27,596	\$39,315	\$13,410

The effective tax rate differs from the statutory rate primarily as a result of the following:

	2016	2015	2014
Statutory rate	35.0%	35.0%	35.0%
Patronage refunds	(18.3)	(18.9)	(23.6)
Rate difference on earnings attributable to noncontrolling interest	(7.6)	0.4	0.1
Section 199 manufacturing deduction	(2.6)	(6.1)	(7.7)
Other, net	1.4	1.3	1.3
Effective tax rate	7.9%	11.7%	5.1%

The significant components of the deferred tax assets and liabilities at December 31 are as follows:

	2016	2015
Deferred tax assets related to:		
Deferred patronage	\$18,237	\$14,375
Accrued liabilities	238,582	240,661
Allowance for doubtful accounts	6,433	4,560
Joint ventures	2,279	3,826
Loss carryforwards	2,777	1,058
Deferred revenue	16,113	6,894
Inventories	4,945	9,744
Other	7,354	7,469
Total deferred tax assets	296,720	288,587
Deferred tax liabilities related to:		
Property, plant and equipment	152,144	134,696
Intangibles	127,521	124,078
Other	11,917	12,495
Total deferred tax liabilities	291,582	271,269
Net deferred tax assets	\$5,138	\$17,318

The net deferred tax assets and liabilities are classified in the consolidated balance sheets at December 31 as follows:

	2016	2015
Other assets	\$12,497	\$38,046
Employee benefits and other liabilities	(7,359)	(20,728)
Total net deferred tax assets	\$5,138	\$17,318

At December 31, 2016 and 2015, the Company had unrecognized tax benefits of approximately \$59.7 million and \$49.4 million, respectively. If recognized, \$58.6 million would impact tax expense. The Company does believe it is reasonably possible that the total amounts of unrecognized tax benefits will significantly increase or decrease during the next 12 months, but cannot anticipate those impacts. Reconciliation of the gross beginning and ending amounts of unrecognized tax benefits for the periods presented is as follows:

	2016	2015	2014
Balance at beginning of year	\$49,448	\$1,389	\$1,541
Additions due to current year tax positions	21,249	29,285	305
Additions due to prior year tax positions	—	19,085	—
Reductions due to prior year tax positions	(10,952)	—	—
Reductions due to statute expiration	(67)	(311)	(457)
Balance at end of year	\$59,678	\$49,448	\$1,389

The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. With few exceptions, the Company is no longer subject to U.S. federal, state and local or non-U.S. income tax examinations by tax authorities for years 2012 and prior.

As of December 31, 2016, the Company had loss and contribution carryforwards of approximately \$7.5 million and tax credits of approximately \$14.2 million for tax purposes available to offset future taxable income. If not used, these carryforwards will expire between years 2032 and 2036.

Income taxes paid in 2016, 2015 and 2014 were \$9.9 million, \$4.6 million and \$8.6 million, respectively. At December 31, 2016 and 2015, income taxes payable were \$6.2 million and \$7.9 million, respectively, and included in accrued liabilities in the consolidated balance sheets.

16. PENSION AND OTHER POSTRETIREMENT PLANS

The Company has a qualified, defined benefit pension plan, which generally covers all eligible employees hired before January 1, 2006 not participating in a labor-negotiated plan. Plan benefits are generally based on years of service and highest compensation during five consecutive years of employment. Annual payments to the pension trust fund are determined in compliance with the Employee Retirement Income Security Act ("ERISA"). In addition, the Company has a non-contributory, supplemental executive retirement plan and a discretionary capital accumulation plan, both of which are non-qualified, defined benefit pension plans and are unfunded.

The Company also sponsors plans that provide certain health care benefits for retired employees. Generally, employees hired by the Company prior to October 1, 2002 become eligible for these benefits upon meeting certain age and service requirements; employees hired by the Company after September 30, 2002 are eligible for access-only retirement health care benefits at their expense. Each participant receives funds based on their calculated benefit in a health reimbursement account to be used to for eligible medical expenses.

Pension Obligation and Funded Status at December 31

	Pension Benefits			
	Qualified Plan		Non-qualified Plans	
	2016	2015	2016	2015
Change in benefit obligation:				
Benefit obligation at beginning of year	\$999,081	\$1,049,291	\$104,314	\$99,196
Service cost	12,396	15,639	2,756	2,433
Interest cost	37,683	43,235	3,472	4,033
Actuarial loss (gain)	29,466	(70,835)	11,821	5,104
Benefits paid	(42,615)	(38,249)	(6,219)	(6,452)
Benefit obligation at end of year	\$1,036,011	\$999,081	\$116,144	\$104,314
Change in plan assets:				
Fair value of plan assets at beginning of year	\$833,758	\$872,157	\$ —	\$ —
Actual return on plan assets	76,058	(25,150)	—	—
Company contributions	50,000	25,000	6,219	6,452
Benefits paid	(42,615)	(38,249)	(6,219)	(6,452)
Fair value of plan assets at end of year	\$917,201	\$833,758	\$ —	\$ —
Funded status at end of year	\$(118,810)	\$(165,323)	\$(116,144)	\$(104,314)
Amounts recognized in the consolidated balance sheets consist of:				
Accrued liabilities	\$ —	\$ —	\$(6,966)	\$(6,000)
Employee benefits and other liabilities	(118,810)	(165,323)	(109,178)	(98,314)
Net amount recognized	\$(118,810)	\$(165,323)	\$(116,144)	\$(104,314)
Amounts recognized in accumulated other comprehensive loss (pretax) consist of:				
Net actuarial loss	\$282,902	\$295,812	\$53,364	\$45,471
Prior service cost	—	—	210	271
Ending balance	\$282,902	\$295,812	\$53,574	\$45,742

The accumulated benefit obligation for the Company's defined benefit pension plans was \$991.4 million and \$953.7 million at December 31, 2016 and 2015, respectively. The accumulated benefit obligation for the Company's non-qualified, defined benefit pension plans was \$104.2 million and \$93.7 million at December 31, 2016 and 2015, respectively.

The projected benefit obligation and fair value of plan assets for the Company's qualified defined benefit pension plans with benefit obligations in excess of plan assets were \$1,036.0 million and \$917.2 million, respectively, at December 31, 2016 and \$999.1 million and \$833.8 million, respectively, at December 31, 2015.

A financial asset's classification within the fair value hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

The following tables provide the plans' assets fair value measurement hierarchy:

	Fair Value Measurements at December 31, 2016 Using:			
	Fair value (a)	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Cash and cash equivalents	\$262	\$262	\$ —	\$ —
Short-term investment fund	6,913	6,913	—	—
Common collective trusts	793,832	—	793,832	—
Hedge funds at net asset value (a)	69,826	—	—	—
Partnership interests at net asset value (a)	67	—	—	—
Real estate funds at net asset value (a)	46,301	—	—	—
Total plan assets	\$917,201	\$7,175	\$793,832	\$—

	Fair Value Measurements at December 31, 2015 Using:			
	Fair value (a)	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Cash and cash equivalents	\$255	\$255	\$ —	\$ —
Short-term investment fund	7,061	7,061	—	—
Common collective trusts (b)	783,951	—	783,951	—
Partnership interests at net asset value (a)	91	—	—	—
Real estate funds at net asset value (a)	42,400	—	—	—
Total plan assets	\$833,758	\$7,316	\$783,951	\$—

(a) Certain assets that are measured at fair value using the net asset value per share (or equivalent) practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in the tables above are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the statement of net assets.

(b) In the financial statements for the year ended December 31, 2015, the Company applied the practical expedient in ASC Subtopic 820-10 to its investments in common collective trusts. In June 2015, ASC Subtopic 820-10 was amended by ASU 2015-10, which clarified that the fair value of an investment in a structure similar to a mutual fund is readily determinable and is therefore not eligible to use the practical expedient. Those investments should be included in the fair value measurement hierarchy. The Company has revised its previous presentation of the fair value measurement hierarchy to include investments in common collective trusts.

The short-term investment fund is comprised of interest-bearing cash accounts and is typically the result of temporary timing differences between receipts from other investments and reinvestment of those funds or benefit payments to plan participants. The common collective trusts are valued at the net asset value ("NAV") as determined by the custodian of the fund. The NAV is based on the fair value of the underlying assets owned

by the fund, minus its liabilities, then divided by the number of units outstanding. Of the amounts reported at net asset value, all of those investments are redeemable with the fund at NAV under original terms of the partnership agreements and/or subscription agreements and operations of the underlying funds. However, it is possible that these redemption rights may be restricted or eliminated by the funds in the future in accordance with the underlying fund agreements. Due to the nature of the investments held by the funds, changes in market conditions and the economic environment may significantly impact the net asset value of the funds, and consequently, the fair value of the funds. Common collective trusts measured at fair value have been categorized as Level 2 in the fair value hierarchy. The real estate funds are valued quarterly at estimated fair value based on the underlying properties in which the real estate funds invest. The information is compiled, in addition to any other assets and liabilities (accrued expenses and unit-holder transactions), to determine the funds' unit value. Real estate funds and partnership interests measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy.

Postretirement Obligation and Funded Status at December 31

	Other Postretirement Benefits	
	2016	2015
Change in benefit obligation:		
Benefit obligation at beginning of year	\$35,423	\$40,444
Service cost	517	618
Interest cost	1,184	1,639
Plan participants' contributions	633	596
Retiree drug subsidy reimbursement	—	92
Actuarial (gain) loss	524	(5,379)
Benefits paid	(2,765)	(2,587)
Benefit obligation at end of year	\$35,516	\$35,423
Change in plan assets:		
Company contributions	\$2,132	\$1,899
Plan participants' contributions	633	596
Retiree drug subsidy reimbursement	—	92
Benefits paid	(2,765)	(2,587)
Fair value of plan assets at end of year	\$ —	\$ —
Funded status at end of year	\$(35,516)	\$(35,423)
Amounts recognized in the consolidated balance sheets consist of:		
Accrued liabilities	\$(2,700)	\$(2,610)
Employee benefits and other liabilities	(32,816)	(32,813)
Net amount recognized	\$(35,516)	\$(35,423)
Amounts recognized in accumulated other comprehensive loss (pretax) consist of:		
Prior service cost	\$(5,811)	\$(8,064)
Net actuarial loss	4,916	4,508
Ending balance	\$(895)	\$(3,556)

Components of net periodic benefit cost are as follows:

	Pension Benefits			Other Postretirement Benefits		
	2016	2015	2014	2016	2015	2014
Service cost	\$15,152	\$18,072	\$15,165	\$517	\$618	\$567
Interest cost	41,155	47,268	45,562	1,184	1,639	1,703
Expected return on plan assets	(55,737)	(55,367)	(54,830)	—	—	—
Amortization of actuarial loss	25,983	38,053	20,670	117	779	293
Amortization of prior service cost (credit)	61	19	16	(2,253)	(2,253)	(2,253)
Net Periodic Benefit Cost	\$26,614	\$48,045	\$26,583	\$(435)	\$783	\$310

The following table sets forth the plans' expected amortization in fiscal 2016 from accumulated other comprehensive income into net periodic benefit costs:

	Qualified Pension Plans	Non-qualified Pension Plans	Other Postretirement Benefits
Amortization of actuarial loss	\$21,624	\$4,937	\$171
Net amortization of prior service cost (benefit)	—	51	(2,253)
Net periodic benefit cost	\$21,624	\$4,988	\$(2,082)

Additional Information

Weighted-average assumptions used to determine benefit obligations at December 31:

	Pension Benefits		Other Postretirement Benefits	
	2016	2015	2016	2015
Weighted-average discount rate	4.27%	4.55%	4.18%	4.41%
Rate of compensation increase	3.25%	3.25%	N/A	N/A

Weighted-average assumptions used to determine net periodic benefit cost for years ended December 31:

	Pension Benefits			Other Postretirement Benefits		
	2016	2015	2014	2016	2015	2014
Weighted-average discount rate	4.55%	4.20%	5.00%	4.41%	4.20%	5.00%
Rate of long-term return on plan assets	6.50%	6.75%	7.25%	N/A	N/A	N/A
Rate of compensation increase	3.25%	3.25%	3.25%	N/A	N/A	N/A

In 2015, the Company changed the method used to estimate the service and interest cost components of net periodic benefit cost for our qualified, defined benefit pension and other postretirement benefit plans. Historically, we estimated the service and interest cost components using a single weighted-average discount rate derived from the yield curve used to measure the benefit obligation at the beginning of the period. We have elected to use a full yield curve approach in the estimation of these components of benefit cost by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows. We made this change to improve the correlation between projected benefit cash flows and the corresponding yield curve spot rates and to provide a more precise measurement of service and interest costs. This change did not affect the measurement of our total benefit obligations as the change in the service cost and interest cost is completely offset in the actuarial (gain) loss reported.

The Company employs a building-block approach in determining the long-term rate of return for the assets in the qualified, defined benefit pension plan. Historical markets are studied and long-term historical relationships between equities and fixed income are preserved consistent with the widely accepted capital market principle that assets with higher volatility generate a greater return over the long run. Current market factors, such as inflation and interest rates, are evaluated before long-term capital market assumptions are determined. Diversification and rebalancing of the plan assets are properly considered as part of establishing the long-term portfolio return. Peer data and historical returns are reviewed to assess for reasonableness.

Although not a guarantee of future results, the total plan assets' 20-year annualized return through December 31, 2016 after fees was 7.1%, which exceeded the customized index by 0.40 percentage points. Over the same 20-year period the plan ranked in the 30th percentile amongst all corporate plans between \$250 million and \$1 billion. The 2016 total plan assets' annualized return was 9.5%, which trailed the customized index by 0.80 percentage points. The total plan assets' five-year annualized return was 8.9%, which exceeded the customized index by 0.60 percentage points.

Plan Assets

The Company's qualified, defined benefit pension plan weighted-average asset allocations at December 31, 2016 and 2015, by asset category, are as follows:

Asset category	2016	2015	Target
U.S. equity securities	10%	16%	11%
International equity securities	10%	18%	11%
Global equity securities	7%	11%	7%
Fixed-income securities and bonds	60%	50%	60%
Real estate and private equity	13%	5%	11%
Total	100%	100%	100%

The Company has a Statement of Pension Investment Policies and Objectives (the "Statement") that guides the retirement plan committee in its mission to effectively monitor and supervise the pension plan assets. In accordance with the Statement, the Committee wishes to structure a portfolio that will:

1. Provide liquidity to meet the Plan benefit payments and expenses payable from the Plan under ERISA;
2. Offer a reasonable probability of achieving a growth of assets that will assist in closing the Plan's funding gap; and
3. Manage the Plan's assets in a liability framework.

The Company expects to receive above-average performance relative to applicable benchmarks for the actively managed portfolios and track the applicable benchmarks for the passive or index strategies. All portfolio strategies will be provided at competitive, institutional management fees.

Cash Flow

The Company expects to contribute approximately \$25.0 million to its qualified defined benefit pension plans and \$9.7 million to its non-qualified defined benefit pension plans and other postretirement benefits plan in 2017.

The benefits anticipated to be paid from the benefit plans, which reflect expected future years of service are as follows:

	Qualified Pension Plans	Non-qualified Pension Plans	Other Postretirement Benefits
2017	\$44,207	\$6,966	\$2,700
2018	47,327	7,064	2,690
2019	50,750	7,890	2,661
2020	53,801	8,695	2,616
2021	56,143	9,662	2,554
2022-2026	319,446	58,030	11,856

Multiemployer Pension Plans

The Company contributes to multiemployer defined contribution pension benefit plans under the terms of collective-bargaining agreements that cover certain unionized employee groups in the United States. The risks of participating in multiemployer pension plans are different from single-employer plans. Assets contributed to a multiemployer plan by one employer may be used to provide benefits to employees of other participating employers. If a participating employer stops contributing to the plan, the unfunded obligations of the plan may be borne by the remaining participating employers.

The Company's participation in multiemployer pension plans for the year ended December 31, 2016 is outlined in the table below. The "EIN/PN" column provides the Employee Identification Number ("EIN") and the three-digit plan number ("PN"). The most recent Pension Protection Act ("PPA") zone status available for 2015 and 2014 is for the plan year-ends as indicated below. The zone status is based on information that the Company received from the plan and is certified by the plan's actuary. Among other factors, plans in the red zone are generally less than 65 percent funded, plans in the yellow zone are between 65 percent and 80 percent funded, and plans in the green zone are at least 80 percent funded. The "FIP/RP Status Pending/Implemented" column indicates plans for which a financial improvement plan ("FIP") or a rehabilitation plan ("RP") is either pending or has been implemented. In addition, the Company may be subject to a surcharge if the plan is in the red zone. The "Surcharge Imposed" column indicates whether a surcharge has been imposed on contributions to the plan. The last column lists the expiration date(s) of the collective-bargaining agreement(s) ("CBA") to which the plans are subject.

Pension Fund	EIN/PN	PPA Zone Status		FIP/RP Status Pending/Implemented	Contributions by the Company			Surcharge Imposed	Expiration Date of CBA
		2015	2014		2016	2015	2014		
Central States Southeast and Southwest Areas Pension Fund (a)	36-6044243 / 001	Red	Red	RP Implemented	\$2,494	\$2,632	\$2,893	No	2/28/2018 to 9/1/2018
Western Conference of Teamsters Pension Plan	91-6145047 / 001	Green	Green	N/A	4,344	3,314	3,223	No	8/1/2020
Other plans					9	341	369		
Total contributions					\$6,847	\$6,287	\$6,485		

(a) The Company is party to multiple CBAs requiring contributions to this fund, each with its own expiration date. Approximately 70 percent of the Company's participants in this fund are covered by a single CBA that expires on April 30, 2018.

Our contributions to these plans did not exceed 5% of total plan contributions for the years ended 2015 and 2014, the most recently available Forms 5500 for these plans.

Other Benefit Plans

Certain eligible employees are covered by defined contribution plans. The expense for these plans was \$42.1 million, \$40.6 million and \$36.1 million for 2016, 2015 and 2014, respectively.

17. SHARE-BASED COMPENSATION

Accounting for share-based payments requires the recognition of the intrinsic value of share-based compensation in net earnings. Share-based compensation consists solely of VAR Units ("Units") granted to certain eligible employees under a Company-sponsored incentive plan (the "VAR plan"). The Units are not traditional stock and do not provide the recipient any voting rights in the Company nor any right to receive assets of the Company. A maximum of 200,000 Units may be granted annually to certain employees at a price based on a formula that includes earnings, debt levels and cash payments to members for the five-year period ending at the close of the preceding year. Generally, Units fully vest four years from the grant date per the VAR plan. Vested Units are settled upon the earlier of a predetermined date chosen by the employee at the date of grant, retirement or termination. Participants can also elect to settle, per the VAR plan provisions, by converting fully vested Units to interest-bearing deferred compensation. The Company recognizes compensation expense for the estimated intrinsic value appreciation of Units over the vesting period using the graded vesting method. The Units are reflected as a liability in the consolidated balance sheets.

For the years ended December 31, 2016, 2015 and 2014, compensation expense for the share-based payment plan was \$7.4 million, \$12.4 million and \$8.3 million, respectively. Cash payments for Units settled for 2016, 2015 and 2014 were \$1.6 million, \$2.5 million and \$1.7 million, respectively. The actual income tax benefit realized from this plan was \$0.6 million, \$1.0 million and \$0.7 million, for 2016, 2015 and 2014, respectively.

For 2016, the number of Units granted, canceled and settled in cash was 77,850, 0 and 19,338, respectively. The number of Units converted to interest-bearing deferred compensation in 2016 was 34,069 with an intrinsic value of \$3.0 million. The number of Units vested during 2016 was 80,488 with an intrinsic value of \$2.6 million. The number of vested Units outstanding at December 31, 2016 was 530,013 with an intrinsic value of \$32.9 million. The number of non-vested Units at December 31, 2016 was 111,438 and the total remaining unrecognized compensation cost related to non-vested Units was \$0.6 million. As of December 31, 2016, 54,050 of the non-vested Units were held by participants who had reached the age and years of service required for early retirement eligibility. For any such participant, prior to the date that the non-vested Units will vest through the normal course, the non-vested Units will immediately vest upon the voluntary termination of the participant. As of December 31, 2016, the weighted-average remaining service period for the non-vested Units was 2.4 years.

For 2015, the number of Units granted, canceled and settled in cash was 84,650, 12,400 and 36,788, respectively. The number of Units converted to interest-bearing deferred compensation in 2015 was 20,064 with an intrinsic value of \$1.9 million. The number of Units vested during 2015 was 118,238 with an intrinsic value of \$4.2 million. The number of vested Units outstanding at December 31, 2015 was 514,969 with an intrinsic value of \$35.6 million. The number of non-vested Units at December 31, 2015 was 102,038 and the total remaining unrecognized compensation cost related to non-vested Units was \$0.6 million. As of December 31, 2015, 38,375 of the non-vested Units were held by participants who had reached the age and years of service required for early retirement eligibility. For any such participant, prior to the date that the non-vested Units will vest through the normal course, the non-vested Units will immediately vest upon the voluntary termination of the participant. As of December 31, 2015, the weighted-average remaining service period for the non-vested Units was 2.4 years.

For 2014, the number of Units granted, canceled and settled in cash was 73,300, 2,712 and 19,906, respectively. The number of Units converted to interest-bearing deferred compensation was 5,750 with an intrinsic value of \$0.2 million. The number of Units vested during 2014 was 112,326 with an intrinsic value of \$2.7 million. The number of vested Units outstanding at December 31, 2014 was

460,458.5 with an intrinsic value of \$26.3 million. The number of non-vested Units at December 31, 2014 was 141,150, and the total remaining unrecognized compensation cost related to non-vested Units was \$0.7 million. As of December 31, 2014, 77,225 of the non-vested Units were held by participants who had reached the age and years of service required for early retirement eligibility. For any such participant, prior to the date that the non-vested Units will vest through the normal course, the non-vested Units will immediately vest upon the voluntary termination of the participant. As of December 31, 2014, the weighted-average remaining service period for the non-vested Units was 2.0 years.

18. EQUITIES

The authorized common stock at December 31, 2016 consisted of 2,000 shares of Class A Common, \$1,000 par value; 50,000 shares of Class B Common, \$1 par value; 500 shares of non-voting Class C Common, \$1,000 par value; and 10,000 shares of non-voting Class D Common, \$1 par value.

As of December 31, 2016, the Company is authorized to issue up to 350,000 shares of preferred stock, \$1,000 par value per share.

The following table reflects the activity in membership shares during the three years ended December 31:

	Number of Shares				
	Common				Preferred
	A	B	C	D	
December 31, 2013	713	2,901	143	778	—
New members	4	136	—	64	—
Transfers between classes	—	(2)	—	2	—
Redemptions	(32)	(232)	(2)	(73)	—
December 31, 2014	685	2,803	141	771	—
New members	5	88	2	43	—
Preferred stock issuance	—	—	—	—	200,000
Transfers between classes	—	(47)	—	47	—
Redemptions	(26)	(167)	(7)	(13)	—
December 31, 2015	664	2,677	136	848	200,000
New members	5	70	3	12	—
Preferred stock issuance	—	—	—	—	115,000
Redemptions	(23)	(408)	(3)	(160)	—
December 31, 2016	646	2,339	136	700	315,000

On an annual basis, the board of directors will establish the total allowable payments for the current year cash to members, including cash patronage, age and estate payments, and equity revolvments for our members. We have three plans through which we pay cash patronage and revolve equity to our members: the Equity Target Program for our Dairy Foods segment, the Ag Service member equity program for our Feed segment, and the Winfield base capital plan for our Crop Inputs segment. To acquire and maintain adequate capital to finance our business, our by-laws allow us to retain up to 25% of our earnings from member business as additions to retained earnings (permanent equity) or offsets to deferred member equities. In 2016, the holdback percentage for all patronage pools was 10%. In 2015, the Dairy Foods holdback percentage was 10% and the holdback percentage for the Feed and Crop Inputs segments was 25%.

The Equity Target Program provides a mechanism for determining the capital requirements of our Dairy Foods operations and each dairy member's share of those requirements. The board of directors

has established an equity target investment of \$2.75 per hundred pounds of milk (or milk equivalent) delivered per year by that member to us. We distribute 20% of allocated patronage income as cash to a dairy member annually until the investment target is reached by that member. The remaining 80% of allocated patronage income is retained as member equities. When the member's equity investment reaches the target, and for as long as the member's equity target investment is maintained, we distribute 100% of the member's allocated patronage income as cash. When members become inactive, their equities are revolved within twelve years. The equity target as well as the revolvment period may be changed at the discretion of the board.

The Feed segment member equity program currently provides for a cash payment of 40% of allocated patronage income. The remaining allocated patronage income is retained as equities. The Ag Service equity revolvment program is based on a percentage of the total equity for the eligible equity accounts. The percentage is calculated by dividing the funds available for revolvment by the total eligible equity. The funds available for revolvment are determined by the board of directors on an annual basis. Account eligibility for revolvment is based on a 10 year waiting period.

The Crop Inputs business utilizes a base capital plan to determine the capital requirements of our Crop Inputs operations and each member's share of those requirements. The board of directors has established equity targets of \$1.0 million each for eligible seed and crop protection product purchases (\$2.0 million in total) and distributes cash patronage using a three-tiered approach based on each member's current equity in relation to the target. Annual cash patronage percent increases at each tier, with 40% cash patronage paid on tier 1 (equity of \$0 to \$0.5 million), 75% cash patronage paid in tier 2 (equity of \$0.5 million to \$1.0 million), and 90% cash patronage paid in tier 3 (equity of more than \$1.0 million). The Crop Inputs revolvment program is based on a percentage of the total equity for the eligible equity accounts. The percentage is calculated by dividing the funds available for revolvment by the total eligible equity. The funds available for revolvment are determined by the board of directors on an annual basis. Revolvments are limited to two times the current year patronage allocation.

Allocated patronage to members of \$182.0 million, \$184.8 million and \$178.3 million for the years ended December 31, 2016, 2015 and 2014, respectively, is based on earnings in specific patronage or product categories and in proportion to the business each member does within each category. For 2016, the Company intends to issue \$182.0 million of qualified patronage and \$0 of non-qualified patronage equities. Qualified patronage equities are tax deductible by the Company when qualified written notices of allocation are issued, and non-qualified patronage equities are tax deductible when redeemed with cash.

The allocation to retained earnings of \$63.0 million in 2016, \$122.7 million in 2015 and \$88.2 million in 2014 represents earnings or losses generated by non-member businesses plus amounts under the retained earnings program as provided in the bylaws of the Company.

On July 16, 2015, in a private placement, the Company issued 200,000 shares of Series A Cumulative Redeemable Preferred Stock with a par value of \$1,000. After deducting issuance costs, the proceeds totaled \$195.4 million. The preferred stock has a stated dividend rate of 8%, payable quarterly. The preferred stock is redeemable for cash at the Company's option at a redemption price of \$1,000 per share, plus accumulated and unpaid dividends, on or after July 16, 2025. On April 18, 2016, in a follow-on transaction, the Company issued an additional 115,000 shares for proceeds of \$112.4 million, net of issuance costs.

19. OTHER EXPENSE (INCOME), NET

	2016	2015	2014
Gain on sale of investments	\$(609)	\$(14,288)	\$(6,072)
Impairment of investment	2,500	—	3,273
Total other income, net	\$1,891	\$(14,288)	\$(2,799)

In 2016, the Company impaired its investment in International Ag Insurance Solutions by \$2.5 million. The remaining book value of the investment is \$2.5 million. In 2015, the Company sold its ownership interest in Advanced Food Products, LLC for \$62.0 million, resulting in a gain of \$14.3 million. In 2014, Moark sold its ownership interest in Delta Egg Farm, LLC for \$17.0 million, resulting in a gain of \$5.0 million and sold its ownership interest in Moark/Ft. Recovery Egg Marketing, LLC for \$2.5 million, resulting in a gain of \$0.5 million. Also in 2014, the Company impaired its investment in Universal by \$3.3 million.

20. RESTRUCTURING AND IMPAIRMENT

	2016	2015	2014
Restructuring	\$7,370	\$—	\$7,889
Asset write-downs	4,723	2,386	5,871
Total restructuring and impairment	\$12,093	\$2,386	\$13,760

In 2016, the Company wrote the value of various assets to be sold down to salvage value. Also in 2016, the Company offered voluntary retirement programs to select corporate and Winfield departments resulting in expense of \$7.4 million.

On May 1, 2014, the Company announced a realignment of its Eastern Wisconsin milk supply strategy. As part of the realignment, the Denmark manufacturing facility in the Dairy Foods segment ceased production and closed on July 1, 2014 and member milk that was shipped to the Denmark facility is now being shipped to the Kiel manufacturing location or sold to an unrelated third party beginning that same date. In the year ended December 31, 2014, the Company recorded a \$4.6 million impairment of the plant assets and recorded severance expense of \$2.1 million.

In March 2014, the Company offered a voluntary retirement incentive program to certain employees of the Feed sales force and recorded restructuring expense of \$5.4 million.

Restructuring and impairment charges are included within selling, general and administrative expenses in the consolidated statements of operations.

21. DISCONTINUED OPERATIONS

In 2015, the Company completed its exit of the commodity shell egg business through the sale of Moark's Northeast region. Beginning in 2013, Moark adopted plans to divest of substantially all of its assets and liabilities. In the second and third quarters of 2014, the West and Midwest regions were sold in multiple transactions for a total of \$165.8 million, which resulted in a net gain of \$5.9 million. Concurrently with these transactions, the proceeds were used to repay Moark's outstanding term loan and pay off outstanding borrowings under and terminate Moark's revolving credit facility. In the third quarter of 2015, the Northeast region was sold for \$91.0 million, resulting in a loss of \$9.1 million. The only remaining assets classified as assets held for sale are two non-operating properties which the Company expects to complete the sale of in 2016.

The reconciliation of the major classes of line items constituting pretax earnings (loss) of discontinued operations to the after-tax earnings or loss that is presented in the statements of operations for the years ended December 31 is as follows:

	2016	2015	2014
Major line items constituting pretax profit (loss) of discontinued operations			
Revenue	\$ —	\$153,151	\$505,256
Cost of sales	—	112,371	433,568
Selling, general and administrative	—	17,742	44,641
Interest expense	—	1,480	4,654
Other expense, net	—	—	1,149
Pretax earnings (loss) of discontinued operations	—	21,558	21,244
Pretax (loss) gain on sale	—	(9,055)	7,878
Total pretax loss on discontinued operations	—	12,503	29,122
Income tax benefit (expense)	—	(6,245)	(13,002)
Total earnings (loss) on discontinued operations that is presented in the consolidated statement of operations	\$ —	\$6,258	\$16,120

Significant operating and investing noncash items of the discontinued operation in the consolidated statements of cash flows are as follows:

	2016	2015	2014
Operating activities:			
Depreciation and amortization	\$ —	\$4,215	\$11,950
Restructuring and impairment	—	305	1,634
Investing activities:			
Additions to property, plant and equipment	—	1,438	4,165

22. COMMITMENTS AND CONTINGENCIES

The Company leases various equipment and real properties under long-term operating leases. Total rental expense was \$126.2 million in 2016, \$109.3 million in 2015 and \$101.4 million in 2014. Most of the leases require payment of operating expenses applicable to the leased assets. Management expects that in the normal course of business most leases that expire will be renewed or replaced by other leases.

Minimum future lease commitments required under noncancelable operating leases at December 31, 2016 are as follows:

Year	Amount
2017	\$45,608
2018	32,027
2019	20,652
2020	12,520
2021	7,388
2022 and thereafter	13,407
Total minimum future lease payments	\$131,602

The Company has noncancelable commitments to purchase raw materials in the Dairy Foods, Feed and Crop Inputs segments. These purchase commitments are contracted on a short-term basis, typically one year or less, and totaled \$2.7 billion at December 31, 2016. Of this amount, \$2.2 billion relates to contracts with members to acquire raw milk. The Feed segment has also contracted commitments to purchase weaner and feeder pigs, which are sold to producers or local cooperatives under long-term supply contracts. At December 31, 2016, future minimum payments under noncancelable purchase obligations are as follows:

Year	Materials Purchase Obligations	Swine Purchase Obligations	Other Contractual Obligations	Total Purchase Obligations
2017	\$2,596,862	\$35,220	\$5,769	\$2,637,851
2018	41,847	788	5,931	48,566
2019	15,461	—	6,099	21,560
2020	—	—	3,164	3,164
2021	—	—	3,248	3,248
2022 and thereafter	—	—	13,539	13,539
Total	\$2,654,170	\$36,008	\$37,750	\$2,727,928

The Company is currently and from time to time involved in litigation and environmental claims incidental to the conduct of business. The damages claimed in some of these cases are substantial.

In a letter dated January 18, 2001, the Company was identified by the United States Environmental Protection Agency ("EPA") as a potentially responsible party in connection with hazardous substances and wastes at the Hudson Refinery Superfund Site in Cushing, OK (the "Site"). The letter invited the Company to enter into negotiations with the EPA for the performance of a remedial investigation and feasibility study at the Site and also demanded that the Company reimburse the EPA approximately \$8.9 million for removal costs already incurred at the Site. In March 2001, the Company responded to the EPA denying any responsibility with respect to the costs incurred for the remediation expenses incurred through that date. On February 25, 2008, the Company received a Special Notice Letter ("Letter") from the EPA inviting the Company to enter into negotiations with the EPA to perform selected remedial action for remaining contamination and to resolve the Company's potential liability for the Site. In the Letter, the EPA claimed that it has incurred approximately \$21.0 million in response costs at the Site through October 31, 2007 and is seeking reimbursement of these costs. The Company maintains that the costs incurred by the EPA were the direct result of damage caused by owners subsequent to the Company, including negligent salvage activities and lack of maintenance. On January 6, 2009, the EPA issued a Unilateral Administrative Order ("UAO") directing the Company to perform remedial design and remedial action ("RD/RA") at the Site. The Company filed its Notice of Intent to Comply with the UAO on February 10, 2009. On April 20, 2009, the EPA issued its authorization to proceed with RD/RA activities. The Company substantially completed the remedial action at the Site on October 8, 2010, but final closeout remediation activities continued into 2013. In 2014, the Company submitted its RA Completion Report, which the EPA reviewed in 2015. While the cleanup activities required by the UAO have been completed, the EPA is conducting a "5 Year Review" of the Site, which could result in additional clean-up activities. On June 23, 2015, the Company received a demand for reimbursement from the EPA in excess of \$28.2 million, which included the EPA's response costs, oversight costs and interest. On the same date, the Company initiated litigation against the EPA.

In the years ended December 31, 2016, 2015 and 2014, the Company incurred expenses related to this matter of \$0, \$1.2 million and \$0.6 million, respectively, with the expense in selling, general and administrative expense. As of December 31, 2016 and 2015, \$1.7 million and \$1.7 million, respectively, remained in accrued liabilities in the Company's consolidated balance sheets.

Between September 2008 and January 2009, a total of 22 related class action lawsuits were filed against a number of producers of eggs and egg products in three different jurisdictions alleging violations of antitrust laws. The cases were consolidated for pretrial proceedings in the District Court for the Eastern District of Pennsylvania (the "Court"), and two separate consolidated amended class action complaints were filed: one on behalf of those persons who purchased eggs or egg products directly from defendants, and the second on behalf of "indirect" purchasers (i.e., persons who purchased eggs, egg products, or products containing eggs from defendants' customers). The consolidated amended complaints allege concerted action by producers of shell eggs to restrict output and thereby increase the price of shell eggs and egg products.

As of December 31, 2016, no direct-action complaints remained filed against Moark, Norco and the Company.

The indirect purchaser class action plaintiffs have filed five amended consolidated complaints. Moark and Norco have answered all five versions. The indirect purchaser class action plaintiffs previously dismissed the Company from their suit. In addition, Moark and Norco joined other defendants in moving to partially dismiss the indirect purchasers' complaint on statute of limitations grounds, and that motion was granted on March 19, 2013. On September 18, 2015, the court denied the indirect purchasers' motion for class certification. The indirect purchasers renewed their motion to certify an injunctive relief class on October 23, 2015. The motion is fully briefed and the court has not ruled. Separately, the indirect purchasers petitioned the Third Circuit Court of Appeals to accept an immediate appeal of the district court's denial of their motion for class certification. The Third Circuit deferred its consideration of the petition until the district court rules on the renewed motion to certify an injunctive relief class. Absent a full settlement with all Plaintiffs, the Company cannot predict what, if any, the impact of these lawsuits could have on the future financial position or results of operations of Moark, Norco or the Company. As of December 31, 2016 and 2015, the Company had reserved \$0.5 million related to this matter.

Some of our businesses depend upon the protections of the Capper-Volstead Act, 7 U.S.C. § 291 ("Capper-Volstead"), which provides limited exemptions for certain cooperatives and other associations of agricultural producers from the application of antitrust laws. In reliance in part on these exemptions, we and several other dairy cooperatives participated in various dairy initiatives operated by the Cooperatives Working Together ("CWT") program, which is organized and administered by the National Milk Producers Federation. Also relying in part on these exemptions, several of the Company's direct and indirect wholly owned subsidiaries participated in various egg-related programs administered by United Egg Producers ("UEP") and United States Egg Marketers ("USEM").

The scope of the Capper-Volstead antitrust exemption has been challenged in various litigation proceedings in recent years. In September and October of 2011, several putative class action lawsuits were filed in the Northern District of California against us and several other dairy cooperatives participating in CWT. The plaintiffs seek to represent classes of indirect purchasers of milk and fresh dairy products and allege that CWT's dairy herd retirement program violates the antitrust and other laws of various states. In December 2012, a similar putative class action lawsuit was filed on behalf of purported direct purchasers of milk and fresh dairy products in the United States District Court for the Southern District of Illinois. That lawsuit alleges that the herd retirement program and other CWT initiatives violate federal antitrust law. As noted above, since the fall of 2008, numerous putative class action and direct action lawsuits have been filed in state and federal courts against us and several of our subsidiaries as well as egg cooperatives and other producers of eggs and egg products. These lawsuits allege that the defendants violated state and federal antitrust laws by conspiring through UEP and USEM to limit the supply of eggs thereby artificially increasing prices. The plaintiffs claim that a variety of practices were used in furtherance of the conspiracy, including an animal welfare program, egg exports, and coordinated flock reductions. At this point we are not able to estimate possible losses. Although we believe we have meaningful defenses in all of these matters, including the aforementioned Capper-Volstead defense, we may incur judgments and be subject to injunctions or enter into settlements in these and similar matters, which could have a material adverse effect on us.

23. RELATED PARTY TRANSACTIONS

The Company has related party transactions, primarily with equity investees. The Company purchased aseptic products and sold dairy ingredients to AFP advanced food products, LLC, a 35% voting interest joint venture with a subsidiary of Bongrain, S.A, until December 31, 2015, at which time the Company sold its 35% voting interest to Bongrain, S.A., a 50% voting interest joint venture. Additionally, the Company's Purina and Winfield subsidiaries purchase products from and sell products to other equity investees and related parties. The Company also collected license fees from and Moark paid marketing service fees to Egglund's Best, LLC, a 50% voting interest joint venture, and Moark also purchased products from and sold products to equity method investees.

Related party transactions and balances for the years ended December 31, 2016, 2015 and 2014, respectively, and as of December 31, 2016 and 2015, respectively, are as follows:

	2016	2015	2014
Sales	\$486,466	\$517,511	\$674,654
Purchases	21,813	82,884	171,430
Marketing service fees paid to related party	—	6,767	18,784
	2016	2015	
Notes receivable	\$49	\$10,084	
Accounts receivable	40,806	47,755	
Accounts payable	83,091	66,933	

24. SUBSEQUENT EVENTS

The Company has evaluated all subsequent events through February 22, 2017, the date the financial statements were issued.

On January 27, 2017, the Company entered into a \$200.0 million ten-year Term B Loan (the "Term B Loan"), which is secured on a pari passu basis with the Revolving Credit Facility and the Private Placement notes in the event the Company does not maintain an investment grade rating from two nationally recognized rating agencies. The Term B Loan bears interest at a fixed rate of 4.50%.

25. SEGMENT INFORMATION

The Company operates in three segments: Dairy Foods, Feed and Crop Inputs.

Dairy Foods produces, markets and sells products such as butter, spreads, cheese and other dairy-related products. Products are sold under well-recognized national brand names including *LAND O LAKES*, the *Indian Maiden* logo, *Kozy Shack* and *Alpine Lace*, as well as under regional brand names such as *New Yorker*.

Feed largely comprises the operations of Purina, the Company's wholly owned subsidiary. Purina develops, produces, markets and distributes animal feeds such as ingredient feed, formula feed, milk replacers, vitamins and additives.

Crop Inputs primarily consists of activities conducted by the Company's majority owned subsidiary, Winfield. Winfield is a supplier and distributor of crop seed and crop protection products, primarily in the United States. Winfield sells a variety of crop seed, primarily corn, soybeans and alfalfa. Crop protection products sold includes herbicides, pesticides, fungicides and adjuvants. As discussed in Note 3, United CP is reported as part of the Crop Inputs segment.

Corporate and Other includes the Company's remaining operations. Other operations consist of a captive insurance company; LOL Finance Co., which provides operating and term loans to producers; Geosys Technology Holding, LLC, which develops and provides decision support services for agriculture professionals through the use of geographic information systems and other forms of technology; FLM+, an advertising agency focused on the agriculture industry; Villa Crop Protection, a South African based crop protection products wholesaler; and the SPE. Corporate and Other also includes unrealized hedging gains and losses on energy trades as those transactions are managed on an enterprise-wide basis.

Transactions between segments are made at market prices to more accurately evaluate the profitability of the individual business segments. The elimination of these transactions are reflected in Eliminations.

The Company's management uses earnings before income taxes to evaluate a segment's performance. The Company allocates corporate administrative expense, interest expense and centrally managed expenses, including insurance and employee benefits expense, to all of its business segments, both directly and indirectly. Corporate administrative functions that are able to determine actual services provided to each segment allocate expense on a direct basis. Interest expense is allocated based on invested capital usage. All other corporate administrative functions and centrally managed expenses are allocated indirectly based on a predetermined measure such as a percentage of total invested capital or head count.

In 2016, Land O'Lakes derived 97% of its net sales in the United States, and 98% of the Company's assets were located within the United States. In 2015, Land O'Lakes derived 98% of its net sales in the United States, and 98% of the Company's assets were located within the United States.

Segment information for the years ended December 31, 2016, 2015 and 2014 is as follows:

SEGMENT INFORMATION

	Dairy Foods	Feed	Crop Inputs	Corporate and Other	Eliminations	Consolidated
For the year ended December 31, 2016:						
Net sales	\$3,805,043	\$3,844,279	\$5,483,295	\$121,936	\$(21,109)	\$13,233,444
Cost of sales (1)	3,444,073	3,371,672	4,818,299	76,398	(18,246)	11,692,196
Selling, general and administrative	292,178	378,869	452,842	44,913	(2,130)	1,166,672
Interest expense (income), net	26,452	25,451	14,098	(1,315)	—	64,686
Other (income) expense, net	(306)	(1)	2,500	(302)	—	1,891
Equity in earnings of affiliated companies	(27,418)	(4,595)	(7,331)	(152)	—	(39,496)
Earnings (loss) before income taxes	\$70,064	\$72,883	\$202,887	\$2,394	\$(733)	\$347,495
For the year ended December 31, 2015:						
Net sales	\$4,037,148	\$4,211,023	\$4,757,728	\$40,201	\$(38,396)	\$13,007,704
Cost of sales (1)	3,705,368	3,757,802	4,184,809	6,856	(34,350)	11,620,485
Selling, general and administrative	267,621	371,375	389,510	29,999	(3,039)	1,055,466
Interest expense (income), net	29,529	28,886	1,013	(3,816)	—	55,612
Other income, net	(14,112)	(176)	—	—	—	(14,288)
Equity in earnings of affiliated companies	(34,319)	(4,670)	(7,178)	(650)	—	(46,817)
Earnings (loss) before income taxes	\$83,061	\$57,806	\$189,574	\$7,812	\$(1,007)	\$337,246
For the year ended December 31, 2014:						
Net sales	\$5,098,148	\$4,688,171	\$4,917,910	\$23,621	\$(34,304)	\$14,693,546
Cost of sales (1)	4,805,612	4,298,704	4,343,330	25,258	(28,485)	13,444,419
Selling, general and administrative	247,820	336,263	366,815	27,386	(1,607)	976,677
Interest expense (income), net	30,409	26,802	4,309	1,640	—	63,160
Other expense (income), net	—	1,556	1,135	(5,490)	—	(2,799)
Equity in earnings of affiliated companies	(25,410)	(2,977)	(17,368)	(6,610)	—	(52,365)
Earnings (loss) before income taxes	\$39,717	\$27,823	\$219,689	\$(18,563)	\$(4,212)	\$264,454
2016:						
Total assets	\$1,452,752	\$1,446,788	\$4,973,376	\$456,272	\$(24,177)	\$8,305,011
Intersegment sales	6,338	2,876	914	10,981	(21,109)	—
Depreciation and amortization	58,348	58,940	47,405	15,329	—	180,022
Investments in equity method affiliates	131,162	15,034	90,045	4,324	—	240,565
Capital expenditures	77,535	64,279	32,929	67,664	—	242,407
2015:						
Total assets	\$1,396,020	\$1,420,039	\$4,481,938	\$714,712	\$(12,744)	\$7,999,965
Intersegment sales	17,348	8,161	730	12,157	(38,396)	—
Depreciation and amortization	51,904	54,666	32,162	13,158	—	151,890
Investments in equity method affiliates	133,695	14,189	86,434	6,179	—	240,497
Capital expenditures	101,302	73,919	26,305	48,974	—	250,500
2014:						
Total assets	\$1,408,972	\$1,338,792	\$3,112,637	\$1,120,329	\$(11,415)	\$6,969,315
Intersegment sales	12,073	8,459	2,328	11,444	(34,304)	—
Depreciation and amortization	46,951	50,050	25,282	19,155	—	141,438
Investments in equity method affiliates	176,394	15,642	79,007	5,530	—	276,573
Capital expenditures	60,590	52,077	22,155	29,096	—	163,918
(1) Cost of sales includes the year-to-year change in unrealized hedging (gains) losses of:						
2016	\$4,616	\$(2,250)	\$(3,003)	\$(10,781)	\$—	\$(11,418)
2015	(8,396)	(835)	1,509	(9,026)	—	(16,748)
2014	8,379	3,679	551	19,153	—	31,762

INDEPENDENT AUDITORS' REPORT

The Board of Directors

Land O'Lakes, Inc.:

We have audited the accompanying consolidated balance sheets of Land O'Lakes, Inc. and its subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive earnings, cash flows, and equities, for each of the years in the three-year period ended December 31, 2016. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the auditing standards of the Public Company Accounting Oversight Board (United States) and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Land O'Lakes, Inc. and its subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2016 in conformity with U.S. generally accepted accounting principles.

KPMG LLP

Minneapolis, Minnesota

February 22, 2017

LAND O'LAKES, INC.

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