# UNITED STATES <br> SECURITIES AND EXCHANGE COMMISSION 

Washington, D.C. 20549
FORM 10-Q 1934

For the quarterly period ended June 30, 2016
or

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

 1934For the transition period from $\qquad$ to $\qquad$
Commission file number 1-15399

## Delaware

(State or Other Jurisdiction of Incorporation or Organization)

36-4277050
(I.R.S. Employer Identification No.)

1955 West Field Court, Lake Forest, Illinois
(Address of Prinicpal Executive Offices)

60045
(Zip Code)

Registrant's telephone number, including area code (847) 482-3000

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

| Large accelerated filer | x | Accelerated filer |
| :--- | :--- | :--- |
| Non-accelerated filer | $\square$ (Do not check if a smaller reporting company) | Smaller reporting company |

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

As of July 29, 2016 the Registrant had outstanding 94,230,654 shares of common stock, par value $\$ 0.01$ per share.

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All reports we file with the Securities and Exchange Commission (SEC) are available free of charge via the Electronic Data Gathering Analysis and Retrieval (EDGAR) System on the SEC website at www.sec.gov. We also provide copies of our SEC filings at no charge upon request and make electronic copies of our reports available through our website at www.packagingcorp.com as soon as reasonably practicable after filing such material with the SEC.

## PART I

## FINANCIAL INFORMATION

## Item 1. FINANCIAL STATEMENTS

## Packaging Corporation of America

## Consolidated Statements of Income and Comprehensive Income

(unaudited, dollars in millions, except per-share data)

|  | Three Months Ended June 30 |  |  |  | Six Months Ended June 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  | 2015 |  | 2016 |  | 2015 |  |
| Statements of Income: |  |  |  |  |  |  |  |  |
| Net sales | \$ | 1,417.4 | \$ | 1,454.3 | \$ | 2,818.4 | \$ | 2,880.0 |
| Cost of sales |  | $(1,097.3)$ |  | (1,136.6) |  | $(2,199.3)$ |  | $(2,285.3)$ |
| Gross profit |  | 320.1 |  | 317.7 |  | 619.1 |  | 594.7 |
| Selling, general, and administrative expenses |  | (114.8) |  | (115.9) |  | (229.1) |  | (233.2) |
| Other expense, net |  | (5.1) |  | (4.2) |  | (9.0) |  | (6.8) |
| Income from operations |  | 200.2 |  | 197.6 |  | 381.0 |  | 354.7 |
| Interest expense, net |  | (22.5) |  | (22.2) |  | (44.1) |  | (41.4) |
| Income before taxes |  | 177.7 |  | 175.4 |  | 336.9 |  | 313.3 |
| Income tax provision |  | (61.8) |  | (61.4) |  | (117.3) |  | (108.5) |
| Net income | \$ | 115.9 | \$ | 114.0 | \$ | 219.6 | \$ | 204.8 |

Net income per common share:

| Basic | \$ | 1.23 | \$ | 1.16 | \$ | 2.32 | \$ | 2.09 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Diluted | \$ | 1.23 | \$ | 1.16 | \$ | 2.32 | \$ | 2.08 |
| Dividends declared per common share | \$ | 0.55 | \$ | 0.55 | \$ | 1.10 | \$ | 1.10 |
| Statements of Comprehensive Income: |  |  |  |  |  |  |  |  |
| Net income | \$ | 115.9 | \$ | 114.0 | \$ | 219.6 | \$ | 204.8 |
| Other comprehensive income, net of tax: |  |  |  |  |  |  |  |  |
| Foreign currency translation adjustment |  | - |  | 4.2 |  | - |  | 2.8 |
| Reclassification adjustments to cash flow hedges included in net income, net of tax of $\$ 0.6$ million, $\$ 0.5$ million, $\$ 1.1$ million, and $\$ 1.1$ million |  | 0.8 |  | 0.9 |  | 1.7 |  | 1.7 |
| Amortization of pension and postretirement plans actuarial loss and prior service cost, net of tax of $\$ 1.0$ million, $\$ 1.4$ million, $\$ 2.0$ million, and $\$ 2.8$ million |  | 1.6 |  | 2.2 |  | 3.2 |  | 4.4 |
| Changes in unfunded employee benefit obligations net of tax of $\$ 2.0$ million and $\$ 2.0$ million |  | 3.1 |  | - |  | 3.1 |  | - |
| Other comprehensive income |  | 5.5 |  | 7.3 |  | 8.0 |  | 8.9 |
| Comprehensive income | \$ | 121.4 | \$ | 121.3 | \$ | 227.6 | \$ | 213.7 |

See accompanying condensed notes to unaudited quarterly consolidated financial statements.

## Packaging Corporation of America

## Consolidated Balance Sheets

(unaudited, dollars and shares in millions, except per-share data)


See accompanying condensed notes to unaudited quarterly consolidated financial statements.

## Packaging Corporation of America

## Consolidated Statements of Cash Flows

(unaudited, dollars in millions)

|  | Six Months Ended June 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  | 2015 |  |
| Cash Flows from Operating Activities: |  |  |  |  |
| Net income | \$ | 219.6 | \$ | 204.8 |
| Adjustments to reconcile net income to net cash provided by operating activities: |  |  |  |  |
| Depreciation, depletion, and amortization of intangibles |  | 176.3 |  | 180.2 |
| Amortization of deferred financing costs |  | 3.8 |  | 3.8 |
| Share-based compensation expense |  | 10.3 |  | 9.1 |
| Deferred income tax provision |  | 1.3 |  | 7.0 |
| Pension and postretirement benefits expense, net of contributions |  | 8.7 |  | 15.6 |
| Other, net |  | 4.2 |  | (4.1) |
| Changes in operating assets and liabilities: |  |  |  |  |
| Decrease (increase) in assets - |  |  |  |  |
| Accounts receivable |  | (26.9) |  | (61.9) |
| Inventories |  | 5.5 |  | (2.6) |
| Prepaid expenses and other current assets |  | (27.5) |  | (24.8) |
| Increase (decrease) in liabilities - |  |  |  |  |
| Accounts payable |  | (4.0) |  | (10.4) |
| Accrued liabilities |  | (23.3) |  | (20.1) |
| Federal and state income taxes payable / receivable |  | 23.1 |  | 7.9 |
| Net cash provided by operating activities |  | 371.1 |  | 304.5 |
| Cash Flows from Investing Activities: |  |  |  |  |
| Additions to property, plant, and equipment |  | (121.8) |  | (141.9) |
| Proceeds from sale of a business |  | - |  | 23.0 |
| Additions to other long-term assets |  | (6.2) |  | (6.1) |
| Other |  | 0.3 |  | 1.1 |
| Net cash used for investing activities |  | (127.7) |  | (123.9) |
| Cash Flows from Financing Activities: |  |  |  |  |
| Repayments of debt and capital lease obligations |  | (3.8) |  | (3.8) |
| Common stock dividends paid |  | (104.9) |  | (93.5) |
| Repurchases of common stock |  | (100.3) |  | (43.3) |
| Excess tax benefits from stock-based awards |  | 5.1 |  | 5.4 |
| Shares withheld to cover employee restricted stock taxes |  | (10.1) |  | (7.4) |
| Other |  | - |  | 0.8 |
| Net cash used for financing activities |  | (214.0) |  | (141.8) |
| Net increase in cash and cash equivalents |  | 29.4 |  | 38.8 |
| Cash and cash equivalents, beginning of period |  | 184.2 |  | 124.9 |
| Cash and cash equivalents, end of period | \$ | 213.6 | \$ | 163.7 |

See accompanying condensed notes to unaudited quarterly consolidated financial statements.

## Condensed Notes to Unaudited Quarterly Consolidated Financial Statements

## 1. Nature of Operations and Basis of Presentation

Packaging Corporation of America ("we," "us," "our," PCA," or the "Company") was incorporated on January 25, 1999. In April 1999, PCA acquired the containerboard and corrugated packaging products business of Pactiv Corporation (Pactiv), formerly known as Tenneco Packaging, Inc., a wholly owned subsidiary of Tenneco Inc. We are a large diverse manufacturer of both packaging and paper products. We are headquartered in Lake Forest, Illinois and we operate primarily in the United States.

We report our business in three reportable segments: Packaging, Paper, and Corporate and Other. Our Packaging segment produces a wide variety of corrugated packaging products. The Paper segment manufactures and sells a range of white papers, including communication-based papers and pressure sensitive papers, and market pulp. Corporate and Other includes support staff services and related assets and liabilities, transportation assets, and activity related to other ancillary support operations. For more information about our segments, see Note 15 Segment Information.

In these consolidated financial statements, certain amounts in prior periods' consolidated financial statements have been reclassified to conform with the current period presentation. As previously disclosed in Note 20, Quarterly Results of Operations, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2015 Annual Report on Form 10-K, to correct an error in the 2015 presentation, a total of $\$ 6.0$ million was reclassified from "Selling, general, and administrative expenses" to "Cost of Sales" for both the three and six months ended June 30, 2015.

The consolidated financial statements of PCA as of June 30, 2016 and for the three and six months ended June 30, 2016 and 2015 are unaudited but include all adjustments (consisting only of normal recurring adjustments) that management considers necessary for a fair presentation of such financial statements. The preparation of the consolidated financial statements involves the use of estimates and accruals. Actual results may vary from those estimates. These financial statements have been prepared in accordance with accounting principles generally accepted in the United States for interim financial information and with Article 10 of SEC Regulation S-X. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States for complete audited financial statements. Operating results for the three and six months ended June 30, 2016 are not necessarily indicative of the results that may be expected for the year ending December 31, 2016. These consolidated financial statements should be read in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2015.

The consolidated financial statements include the accounts of PCA and its majority-owned subsidiaries after elimination of intercompany balances and transactions.

## 2. Earnings Per Share

The following table sets forth the computation of basic and diluted income per common share for the periods presented (dollars and shares in millions, except per share data):

|  | Three Months Ended June 30 |  |  |  | Six Months Ended June 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  | 2015 |  | 2016 |  | 2015 |  |
| Numerator: |  |  |  |  |  |  |  |  |
| Net income | \$ | 115.9 | \$ | 114.0 | \$ | 219.6 | \$ | 204.8 |
| Less: distributed and undistributed earnings allocated to participating securities |  | (1.2) |  | (1.4) |  | (2.3) |  | (2.6) |
| Net income attributable to common shareholders | \$ | 114.7 | \$ | 112.6 | \$ | 217.3 | \$ | 202.2 |
| Denominator: |  |  |  |  |  |  |  |  |
| Weighted average basic common shares outstanding |  | 93.2 |  | 96.8 |  | 93.6 |  | 97.0 |
| Effect of dilutive securities |  | 0.1 |  | 0.1 |  | 0.1 |  | 0.1 |
| Weighted average diluted common shares outstanding |  | 93.3 |  | 96.9 |  | 93.7 |  | 97.1 |
| Basic income per common share | \$ | 1.23 | \$ | 1.16 | \$ | 2.32 | \$ | 2.09 |
| Diluted income per common share | \$ | 1.23 | \$ | 1.16 | \$ | 2.32 | \$ | 2.08 |

## 3. Other Expense, Net

The components of other income (expense), net, were as follows (dollars in millions):

|  | Three Months Ended June 30 |  |  |  | Six Months Ended June 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  | 2015 |  | 2016 |  | 2015 |  |
| Facilities closure costs (a) | \$ | (1.4) | \$ | - | \$ | (3.3) | \$ | - |
| Acquisition-related costs (b) |  | (0.3) |  | - |  | (0.3) |  | - |
| Multiemployer pension withdrawal (c) |  | (0.9) |  | - |  | (0.9) |  | - |
| Asset disposals and write-offs |  | (1.1) |  | (3.7) |  | (2.9) |  | (4.7) |
| Integration-related and other costs (d) |  | - |  | (3.6) |  | - |  | (6.7) |
| DeRidder restructuring (e) |  | - |  | 1.0 |  | - |  | (0.2) |
| Refundable state tax credit (f) |  | - |  | - |  | - |  | 3.6 |
| Other |  | (1.4) |  | 2.1 |  | (1.6) |  | 1.2 |
| Total | \$ | (5.1) | \$ | (4.2) | \$ | (9.0) | \$ | (6.8) |

(a) The three and six months ended June 30, 2016 include facilities closure costs related to corrugated products facilities and a paper products facility.
(b) The three and six months ended June 30, 2016 include acquisition-related costs for the announced TimBar Corporation acquisition.
(c) The three and six months ended June 30, 2016 include costs related to our withdrawal from a multiemployer pension plan for one of our corrugated products facilities.
(d) The three and six months ended June 30, 2015 include Boise acquisition integration-related and other costs. These costs primarily relate to professional fees, severance, retention, relocation, travel, and other integration-related costs.
(e) The three and six months ended June 30, 2015 include amounts from restructuring activities at our mill in DeRidder, Louisiana.
(f) The six months ended June 30, 2015 include a tax credit from the State of Louisiana related to our capital investment and the jobs retained at the DeRidder, Louisiana mill.

## 4. Income Taxes

For the three months ended June 30, 2016 and 2015 we recorded $\$ 61.8$ million and $\$ 61.4$ million of income tax expense and had an effective tax rate of $34.8 \%$ and $35.0 \%$, respectively. The decrease in our effective tax rate for the three months ended June 30, 2016 compared with the same period in 2015, was primarily due to the 2016 benefit of federal income tax credits that were not available at June 30 , 2015 due to the expiration and later reinstatement on December 18, 2015 as part of the Protecting Americans from Tax Hikes Act (PATH Act).

For the six months ended June 30, 2016 and 2015, we recorded $\$ 117.3$ million and $\$ 108.5$ million of income tax expense and had an effective tax rate of $34.8 \%$ and $34.6 \%$, respectively. The increase in our effective tax rate for the six months ended June 30, 2016 compared with the same period in 2015, was primarily due to the 2015 favorable closure of a Federal audit for tax years 2010 through 2012 and the resulting release of uncertain tax positions and favorable state law changes, partially offset by expired federal income tax credits later reinstated in the PATH Act.

Our effective tax rate may differ from the federal statutory income tax rate of $35.0 \%$, due primarily to the effect of the domestic manufacturing deduction and state and local income taxes.

During the three and six months ended June 30, 2016 there were no significant changes to our uncertain tax positions. For more information, see Note 6, Income Taxes, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2015 Annual Report on Form 10-K.

During the six months ended June 30, 2016 and 2015 cash paid for taxes, net of refunds received, was $\$ 83.3$ million and $\$ 87.8$ million, respectively.

## 5. Inventories

We value our raw materials, work in process, and finished goods inventories using lower of cost, as determined by the average cost method, or market. Supplies and materials are valued at the first-in, first-out (FIFO) or average cost methods.

The components of inventories were as follows (dollars in millions):

|  | $\begin{gathered} \text { June 30, } \\ 2016 \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2015 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Raw materials | \$ | 256.5 | \$ | 260.6 |
| Work in process |  | 11.9 |  | 14.2 |
| Finished goods |  | 182.2 |  | 189.7 |
| Supplies and materials |  | 220.7 |  | 212.3 |
| Inventories | \$ | 671.3 | \$ | 676.8 |

## 6. Property, Plant, and Equipment

The components of property, plant, and equipment were as follows (dollars in millions):

|  | $\begin{gathered} \text { June 30, } \\ 2016 \\ \hline \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2015 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Land and land improvements | \$ | 147.8 | \$ | 146.4 |
| Buildings |  | 645.5 |  | 640.9 |
| Machinery and equipment |  | 4,800.0 |  | 4,747.1 |
| Construction in progress |  | 172.8 |  | 119.1 |
| Other |  | 63.7 |  | 61.3 |
| Property, plant, and equipment, at cost |  | 5,829.8 |  | 5,714.8 |
| Less accumulated depreciation |  | $(3,019.9)$ |  | $(2,882.7)$ |
| Property, plant, and equipment, net | \$ | 2,809.9 | \$ | 2,832.1 |

Depreciation expense for the three months ended June 30,2016 and 2015 was $\$ 79.9$ million and $\$ 78.7$ million, respectively. During the six months ended June 30, 2016 and 2015, depreciation expense was $\$ 160.6$ million and $\$ 163.9$ million, respectively. During the six months ended June 30, 2016 and 2015, we recognized $\$ 0.4$ million and $\$ 9.0$ million, respectively, of incremental depreciation expense from shortening the useful lives of assets related to facilities closures in 2016 and restructuring activities at our DeRidder, Louisiana mill in 2015.

At June 30, 2016 and December 31, 2015 purchases of property, plant, and equipment included in accounts payable were $\$ 33.1$ million and $\$ 15.0$ million, respectively.

## 7. Goodwill and Intangible Assets

## Goodwill

Goodwill represents the excess of the cost of an acquired business over the fair value of the identifiable tangible and intangible assets acquired and liabilities assumed in a business combination. At both June 30, 2016 and December 31, 2015 we had $\$ 488.8$ million of goodwill recorded in our Packaging segment and $\$ 55.2$ million of goodwill recorded in our Paper segment on our Consolidated Balance Sheets.

## Intangible Assets

Intangible assets are primarily comprised of customer relationships and trademarks and trade names.
The weighted average remaining useful life, gross carrying amount, and accumulated amortization of our intangible assets were as follows (dollars in millions):

|  | June 30, 2016 |  |  |  |  | December 31, 2015 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Weighted Average Remaining Useful Life (in Years) | Gross Carrying Amount |  | Accumulated Amortization |  | Weighted Average Remaining Useful Life (in Years) | Gross Carrying Amount |  | Accumulated Amortization |  |
| Customer relationships | 12.9 | \$ | 311.5 | \$ | 67.5 | 13.3 | \$ | 311.5 | \$ | 57.3 |
| Trademarks and trade names | 13.5 |  | 21.8 |  | 6.3 | 13.6 |  | 21.8 |  | 5.2 |
| Other | 0.7 |  | 0.2 |  | 0.2 | 1.2 |  | 0.2 |  | 0.2 |
| Total intangible assets (excluding goodwill) | 12.9 | \$ | 333.5 | \$ | 74.0 | 13.6 | \$ | 333.5 | \$ | 62.7 |

During the six months ended June 30, 2016 and 2015, amortization expense was $\$ 11.2$ million and $\$ 11.4$ million, respectively.

## 8. Accrued Liabilities

The components of accrued liabilities were as follows (dollars in millions):

|  | $\begin{gathered} \text { June 30, } \\ 2016 \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2015 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Compensation and benefits | \$ | 88.7 | \$ | 106.4 |
| Medical insurance and workers' compensation |  | 30.1 |  | 31.1 |
| Franchise, property, and sales and use taxes |  | 17.7 |  | 16.0 |
| Customer volume discounts and rebates |  | 16.4 |  | 15.3 |
| Environmental liabilities and asset retirement obligations |  | 7.4 |  | 7.9 |
| Severance, retention, and relocation |  | 2.7 |  | 7.3 |
| Other |  | 7.2 |  | 9.5 |
| Total | \$ | 170.2 | \$ | 193.5 |

During the six months ended June 30, 2016, we made principal payments of $\$ 3.3$ million on our seven-year term loan due October 2020 . For the six months ended June 30, 2016 and 2015 cash payments for interest were $\$ 43.1$ million and $\$ 42.9$ million, respectively.

Included in interest expense, net, are amortization of treasury lock settlements and amortization of financing costs. For both the three months ended June 30, 2016 and 2015 amortization of treasury lock settlements was $\$ 1.4$ million, and for both the six months ended June 30, 2016 and 2015 , amortization of treasury lock settlements was $\$ 2.8$ million. For the three months ended June 30, 2016 and 2015 amortization of financing costs was $\$ 0.5$ million and $\$ 0.4$ million, respectively, and during the six months ended for both June 30, 2016 and 2015, amortization of financing costs was $\$ 0.9$ million.

For more information on our long-term debt and interest rates on that debt, see Note 10, Debt, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2015 Annual Report on Form 10-K.

At June 30, 2016 we had $\$ 1,650.0$ million of fixed-rate senior notes and $\$ 658.8$ million of variable-rate term loans outstanding. At June 30 , 2016 the fair value of our fixed-rate debt was estimated to be $\$ 1,773.0$ million. The difference between the book value and fair value is due to the difference between the period-end market interest rate and the stated rate of our fixed-rate debt. We estimated the fair value of our fixed-rate debt using quoted market prices (Level 2 inputs) within the fair value hierarchy, which is further defined in Note 2, Summary of Significant Accounting Policies, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2015 Annual Report on Form 10-K. The fair value of our variable-rate term debt approximates the carrying amount as our cost of borrowing is variable and approximates current market rates.

## 10. Employee Benefit Plans and Other Postretirement Benefits

The components of net periodic benefit cost for our pension plans were as follows (dollars in millions):

|  | Pension Plans |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Three Months Ended June 30 |  |  |  | Six Months Ended June 30 |  |  |  |
|  | 2016 |  | 2015 |  | 2016 |  | 2015 |  |
| Service cost | \$ | 6.1 | \$ | 6.0 | \$ | 12.2 | \$ | 11.8 |
| Interest cost |  | 10.2 |  | 11.5 |  | 20.4 |  | 23.0 |
| Expected return on plan assets |  | (12.4) |  | (13.3) |  | (24.8) |  | (26.6) |
| Net amortization of unrecognized amounts |  |  |  |  |  |  |  |  |
| Prior service cost |  | 1.4 |  | 1.4 |  | 2.8 |  | 2.8 |
| Actuarial loss |  | 1.4 |  | 2.2 |  | 2.8 |  | 4.3 |
| Net periodic benefit cost | \$ | 6.7 | \$ | 7.8 | \$ | 13.4 | \$ | 15.3 |

In April 2016, the Company provided notice to eligible participants that the Salaried Retiree Medical Plan would be frozen as of December 31 , 2016. As a result of the freeze, eligible plan participants who do not retire and elect coverage before December 31, 2016 lose benefits attributable to service already rendered. In accordance with Accounting Standards Codification (ASC) 715, "Compensation--Retirement Benefits", the Company remeasured the Salaried Retiree Medical Plan benefit obligation using current assumptions, resulting in a decrease in the benefit obligation of $\$ 5.1$ million with a corresponding increase in accumulated other comprehensive income of $\$ 3.1$ million and deferred income taxes of $\$ 2.0$ million.

PCA makes pension plan contributions that are sufficient to fund its actuarially determined costs, generally equal to the minimum amounts required by the Employee Retirement Income Security Act (ERISA). During the three and six months ended June 30, 2016 and 2015 payments to our nonqualified pension plans were insignificant. We made a contribution of $\$ 3.7$ million to our qualified plans during the three and six months ended June 30 , 2016 ; however, we did not make a contribution to our qualified plans during the same periods in 2015 . We expect to contribute at least the estimated required minimum contributions to our qualified plans of approximately \$27.0 million in 2016.

The components of net periodic benefit cost for our postretirement plans were as follows (dollars in millions):

|  | Postretirement Plans |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Three Months Ended June 30 |  |  |  | Six Months Ended June 30 |  |  |  |
|  | 2016 |  | 2015 |  | 2016 |  | 2015 |  |
| Service cost | \$ | 0.2 | \$ | 0.4 | \$ | 0.4 | \$ | 0.8 |
| Interest cost |  | 0.2 |  | 0.3 |  | 0.4 |  | 0.6 |
| Net amortization of unrecognized amounts |  |  |  |  |  |  |  |  |
| Prior service cost |  | - |  | - |  | - |  | - |
| Actuarial loss |  | (0.2) |  | - |  | (0.4) |  | 0.1 |
| Net periodic benefit cost | \$ | 0.2 | \$ | 0.7 | \$ | 0.4 | \$ | 1.5 |

## 11. Share-Based Compensation

The Company has a long-term equity incentive plan, which allows for grants of restricted stock, performance awards, stock appreciation rights, and stock options to directors, officers, and employees, as well as others who engage in services for PCA. The Company has not granted option awards since 2007. The plan, as amended, terminates May 1, 2023 and authorizes 10.6 million shares of common stock for grant over the life of the plan. As of June 30 , 2016, 1.2 million shares were available for future issuance under the plan. Forfeitures are added back to the pool of shares of common stock available to be granted at a future date.

The following table presents restricted stock and performance unit award activity for the six months ended June 30, 2016:

|  | Restricted Stock |  |  | Performance Units |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shares | Weighted Average Grant- Date Fair Value |  | Shares | Weighted Average Grant- Date Fair Value |  |
| Outstanding at January 1, 2016 | 1,007,794 | \$ | 49.47 | 175,675 | \$ | 59.94 |
| Granted | 242,835 |  | 67.48 | 77,017 |  | 67.57 |
| Vested (a) | $(409,815)$ |  | 32.64 | $(20,604)$ |  | 57.58 |
| Forfeitures | $(14,440)$ |  | 56.69 | - |  | - |
| Outstanding at June 30, 2016 | 826,374 | \$ | 62.99 | 232,088 | \$ | 62.68 |

(a) Upon vesting of the performance unit awards, PCA issued 21,111 shares of its common stock, which included 507 shares for dividends accrued during the vesting period.

## Compensation Expense

Our share-based compensation expense is recorded in "Selling, general, and administrative expenses". Compensation expense for share-based awards recognized in the Consolidated Statements of Income, net of forfeitures, was as follows (dollars in millions):

|  | Three Months Ended June 30 |  |  |  | Six Months Ended June 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  | 2015 |  | 2016 |  | 2015 |  |
| Restricted stock | \$ | 3.9 | \$ | 4.4 | \$ | 8.8 | \$ | 8.0 |
| Performance units |  | 0.8 |  | 0.5 |  | 1.5 |  | 1.1 |
| Total share-based compensation expense |  | 4.7 |  | 4.9 |  | 10.3 |  | 9.1 |
| Income tax benefit |  | (1.8) |  | (1.9) |  | (4.0) |  | (3.5) |
| Share-based compensation expense, net of tax benefit | \$ | 2.9 | \$ | 3.0 | \$ | 6.3 | \$ | 5.6 |

The fair value of restricted stock and performance units is determined based on the closing price of the Company's common stock on the grant date. As PCA's Board of Directors has the ability to accelerate vesting of share-based awards upon
an employee's retirement, the Company accelerates the recognition of compensation expense for certain employees approaching normal retirement age.
The unrecognized compensation expense for all share-based awards at June 30, 2016 was as follows (dollars in millions):

|  | June 30, 2016 | Remaining Weighted <br> Average Recognition <br> Period (in years) |
| :--- | :--- | :--- |
| Restricted stock | Unrecognized <br> Compensation Expense | 3.0 <br> Performance units <br> Total unrecognized share-based compensation expense |

## 12. Stockholders' Equity

## Dividends

During the six months ended June 30, 2016, we paid $\$ 104.9$ million of dividends to shareholders. On May 18, 2016 PCA's Board of Directors declared a regular quarterly cash dividend of $\$ 0.55$ per share, which was paid on July 15, 2016 to shareholders of record as of June 15, 2016 . The July 2016 dividend payment was $\$ 51.8$ million.

## Repurchases of Common Stock

On February 25, 2016 PCA announced that its Board of Directors authorized the repurchase of an additional $\$ 200.0$ million of the Company's outstanding common stock. Repurchases may be made from time to time in open market or privately negotiated transactions in accordance with applicable securities regulations. The timing and amount of repurchases will be determined by the Company in its discretion based on factors such as PCA's stock price and market and business conditions.

During the six months ended June 30, 2016, we paid $\$ 100.3$ million to repurchase $1,987,187$ shares of common stock.

## Accumulated Other Comprehensive Income (Loss)

Changes in accumulated other comprehensive income (loss) (AOCI) by component were as follows. Amounts in parentheses indicate losses (dollars in millions):

|  | Unrealized Loss On Treasury Locks, Net |  |  | $\qquad$ |  | Unfunded <br> Employee <br> Benefit <br> Obligations |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at January 1, 2016 | \$ | (21.2) |  | \$ | (0.4) | \$ | (103.3) |  | \$ | (124.9) |
| Other comprehensive income (loss) before reclassifications, net of tax |  | - |  |  | - |  | 3.1 |  |  | 3.1 |
| Amounts reclassified from AOCI, net of tax |  | 1.7 | (a) |  | - |  | 3.2 | (b) |  | 4.9 |
| Balance at June 30, 2016 | \$ | (19.5) |  | \$ | (0.4) | \$ | (97.0) |  | \$ | (116.9) |

Reclassifications out of AOCI were as follows. Amounts in parentheses indicate expenses in the Consolidated Statements of Income (dollars in millions):

(a) This AOCI component is included in interest expense, net. Amount relates to the amortization of the effective portion of treasury lock derivative instruments recorded in AOCI. The net amount of settlement gains or losses on derivative instruments included in AOCI to be amortized over the next 12 months is a net loss of $\$ 5.7$ million ( $\$ 3.5$ million after tax). For a discussion of treasury lock derivative instrument activity, see Note 14, Derivative Instruments and Hedging Activities, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2015 Annual Report on Form 10-K.
(b) These AOCI components are included in the computation of net pension and postretirement benefit costs. See Note 10, Employee Benefit Plans and Other Postretirement Benefits, for additional information.

## 13. Concentrations of Risk

Our Paper segment has had a long-standing commercial and contractual relationship with Office Depot, our largest customer in the paper business. This relationship exposes us to a significant concentration of business and financial risk. Our sales to Office Depot represent approximately $8 \%$ and $10 \%$ of our total Company sales revenue, for the six months ended June 30, 2016 and 2015, respectively, and approximately $41 \%$ and $45 \%$ of our Paper segment sales revenue for both those periods, respectively. At June 30, 2016 and December 31, 2015 we had $\$ 28.9$ million and \$39.5 million of accounts receivable due from Office Depot, which represents $4 \%$ and $6 \%$ of our total Company accounts receivable, respectively.

In 2015, sales to Office Depot represented 45\% of our Paper segment sales. If these sales are reduced, we would need to find new customers. We may not be able to fully replace any lost sales, and any new sales may be at lower prices or higher costs. Any significant deterioration in the financial condition of Office Depot affecting its ability to pay or any other change that affects its willingness to purchase our products will harm our business and results of operations.

During the second quarter of 2016, Office Depot and Staples terminated their merger agreement, and the acquisition of Office Depot by Staples was not completed. We continue to do business in the ordinary course with Office Depot.

## 14. Transactions With Related Parties

Louisiana Timber Procurement Company, L.L.C. (LTP) is a variable-interest entity that is $50 \%$ owned by PCA and 50\% owned by Boise Cascade Company (Boise Cascade). LTP procures sawtimber, pulpwood, residual chips, and other residual wood fiber to meet the wood and fiber requirements of PCA and Boise Cascade in Louisiana. PCA is the primary beneficiary of LTP, and has the power to direct the activities that most significantly affect the economic performance of LTP. Therefore, we consolidate $100 \%$ of LTP in our financial statements in our Corporate and Other segment. The carrying amounts of LTP's assets and liabilities (which relate primarily to noninventory working capital items) on our Consolidated Balance Sheets were $\$ 3.9$ million at June 30, 2016 and $\$ 4.5$ million at December 31, 2015. During the three months ended June 30, 2016 and 2015, we recorded $\$ 17.1$ million and $\$ 23.2$ million, respectively, and during the six months ended June 30, 2016 and 2015 we recorded $\$ 39.3$ million and $\$ 45.1$ million, respectively, of LTP sales to Boise Cascade in "Net Sales" in the Consolidated Statements of Income and approximately the same amount of expenses in "Cost of Sales". The sales were at prices designed to approximate market prices.

During the three months ended June 30, 2016 and 2015 fiber purchases from related parties were $\$ 4.5$ million and $\$ 5.0$ million, respectively. Fiber purchases were $\$ 9.2$ million and $\$ 11.3$ million, respectively, during the six months ended June 30, 2016 and 2015. Most of these purchases related to chip and $\log$ purchases by LTP from Boise Cascade's wood products business. These purchases are recorded in "Cost of Sales" in the Consolidated Statements of Income.

## 15. Segment Information

We report our business in three reportable segments: Packaging, Paper, and Corporate and Other. These segments represent distinct businesses that are managed separately because of differing products and services. Each of these businesses requires distinct operating and marketing strategies.

Each segment's profits and losses are measured on operating profits before interest expense, net, and income taxes. For many of these allocated expenses, the related assets and liabilities remain in the Corporate and Other segment.

Selected financial information by reportable segment was as follows (dollars in millions):

| Three Months Ended June 30, 2016 | Sales, net |  |  |  |  |  | Operating Income (Loss) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Trade |  | Intersegment |  | Total |  |  |  |  |
| Packaging | \$ | 1,123.6 | \$ | 1.7 | \$ | 1,125.3 | \$ | 192.4 | (a) |
| Paper |  | 266.8 |  | - |  | 266.8 |  | 24.4 | (a) |
| Corporate and Other |  | 27.0 |  | 33.0 |  | 60.0 |  | (16.6) |  |
| Intersegment eliminations |  | - |  | (34.7) |  | (34.7) |  | - |  |
|  | \$ | 1,417.4 | \$ | - | \$ | 1,417.4 |  | 200.2 |  |
| Interest expense, net |  |  |  |  |  |  |  | (22.5) |  |
| Income before taxes |  |  |  |  |  |  | \$ | 177.7 |  |


| Three Months Ended June 30, 2015 | Sales, net |  |  |  |  |  | Operating Income (Loss) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Trade |  | Intersegment |  | Total |  |  |  |  |
| Packaging | \$ | 1,140.9 | \$ | 1.3 | \$ | 1,142.2 | \$ | 194.6 | (b) |
| Paper |  | 281.1 |  | - |  | 281.1 |  | 23.4 |  |
| Corporate and Other |  | 32.3 |  | 34.1 |  | 66.4 |  | (20.4) | (c) |
| Intersegment eliminations |  | - |  | (35.4) |  | (35.4) |  | - |  |
|  | \$ | 1,454.3 | \$ | - | \$ | 1,454.3 |  | 197.6 |  |
| Interest expense, net |  |  |  |  |  |  |  | (22.2) |  |
| Income before taxes |  |  |  |  |  |  | \$ | 175.4 |  |


| Six Months Ended June 30, 2016 | Sales, net |  |  |  |  |  | Operating Income (Loss) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Trade |  | Inter- segment |  | Total |  |  |  |  |
| Packaging | \$ | 2,217.4 | \$ | 3.4 | \$ | 2,220.8 | \$ | 353.9 | (a) |
| Paper |  | 547.3 |  | - |  | 547.3 |  | 60.5 | (a) |
| Corporate and Other |  | 53.7 |  | 69.0 |  | 122.7 |  | (33.4) |  |
| Intersegment eliminations |  | - |  | (72.4) |  | (72.4) |  | - |  |
|  | \$ | 2,818.4 | \$ | - | \$ | 2,818.4 |  | 381.0 |  |
| Interest expense |  |  |  |  |  |  |  | (44.1) |  |
| Income before taxes |  |  |  |  |  |  | \$ | 336.9 |  |


| Six Months Ended June 30, 2015 | Sales, net |  |  |  |  |  | Operating Income (Loss) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Trade |  | Inter-segment |  | Total |  |  |  |  |
| Packaging | \$ | 2,238.8 | \$ | 2.7 | \$ | 2,241.5 | \$ | 335.7 | (b) |
| Paper |  | 578.4 |  | - |  | 578.4 |  | 59.0 |  |
| Corporate and Other |  | 62.8 |  | 64.6 |  | 127.4 |  | (40.0) | (c) |
| Intersegment eliminations |  | - |  | (67.3) |  | (67.3) |  | - |  |
|  | \$ | 2,880.0 | \$ | - | \$ | 2,880.0 |  | 354.7 |  |
| Interest expense |  |  |  |  |  |  |  | (41.4) |  |
| Income before taxes |  |  |  |  |  |  | \$ | 313.3 |  |

(a) The three and six months ended June 30, 2016 include $\$ 1.7$ million and $\$ 4.5$ million, respectively, of closure costs related to corrugated products facilities and a paper products facility. The closure costs are recorded within "Other expense, net" and "Cost of sales", as appropriate.
The three and six months ended June 30, 2016 include $\$ 0.3$ million of acquisition-related costs for the announced TimBar Corporation acquisition, which we recorded in "Other expense, net".
The three and six months ended June 30, 2016 include $\$ 0.9$ million of costs related to our withdrawal from a multiemployer pension plan for one of our corrugated products facilities.
(b) The three and six months ended June 30, 2015 include $\$ 1.0$ million of income and $\$ 9.3$ million of expense, respectively, related to restructuring charges at our mill in DeRidder, Louisiana, which were recorded in "Other expense, net" and "Cost of sales", as appropriate.
The three and six months ended June 30, 2015 include $\$ 1.7$ million and $\$ 2.6$ million of Boise acquisition integration-related and other costs, respectively. These costs primarily relate to professional fees, severance, retention, relocation, travel, and other integration-related costs, and are mostly recorded in "Other expense, net".
(c) The three and six months ended June 30, 2015 include $\$ 2.0$ million and $\$ 4.6$ million, respectively, of Boise acquisition integration-related and other costs, mostly recorded in "Other expense, net". Boise acquisition integration-related and other costs, primarily recorded in "Other expense, net".

## 16. New and Recently Adopted Accounting Standards

In March 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-09 (Topic 718): Improvements to Employee Share-Based Payment Accounting. This ASU is intended to improve the accounting for share-based payment transactions as part of the FASB's simplification initiative. Under the ASU, all excess tax benefits and tax deficiencies will be recorded as an income tax benefit or expense in the income statement. The ASU is effective for fiscal years beginning after December 15, 2016, and interim periods within those years for public business entities. We are evaluating the timing and effects of the adoption of this ASU on our financial statements.

In February 2016, the FASB issued ASU 2016-02 (Topic 842): Leases. This ASU amends a number of aspects of lease accounting, including requiring lessees to recognize operating leases with a term greater than one year on their balance sheet as a right-of-use asset and corresponding lease liability, measured at the present value of the lease payments. This ASU will be effective for us beginning in our first quarter of 2019 and early adoption is permitted. This ASU is required to be adopted using a modified retrospective approach. We are evaluating the timing and effects of the adoption of this ASU on our financial statements.

Effective January 1, 2016, the Company adopted ASU 2015-03 (Topic 835): Simplifying the Presentation of Debt Issuance Costs. This ASU conforms the presentation of debt issuance costs with that required for debt discounts under U.S. Generally Accepted Accounting Principles (GAAP). Under the ASU, debt issuance costs are presented in the balance sheet as a direct deduction from the related liability rather than as an asset. We applied this guidance retrospectively, as required, and reclassified $\$ 12.3$ million from "Other long-term assets" to "Long-term debt" on our December 31, 2015 Consolidated Balance Sheet to conform with current period presentation. At June 30, 2016 deferred financing costs were $\$ 11.5$ million.

In July 2015, the FASB issued ASU 2015-11 (Topic 330): Simplifying the Measurement of Inventory. This ASU addresses only the measurement of inventory if its value declines or is impaired. The guidance on determining the cost of inventory is not amended. We continue to apply average cost to determine the cost of inventory and will then compare that to the net realizable value to determine if an inventory write-down is necessary. The ASU is effective January 1, 2017, and we do not expect it to have a material effect on our financial position or results of operations.

In May 2014, the FASB issued ASU 2014-09 (Topic 606): Revenue from Contracts with Customers. This ASU amends the guidance for revenue recognition to replace numerous, industry-specific requirements and converges areas under this topic with those of the International Financial Reporting Standards. The ASU implements a five-step process for customer contract revenue recognition that focuses on transfer of control, as opposed to transfer of risk and rewards. The amendment also requires enhanced disclosures regarding the nature, amount, timing, and uncertainty of revenues and cash flows from contracts with customers. In March 2016, the FASB issued ASU 2016-08, Revenue from Contracts with Customers - Principal versus Agent Considerations (Reporting revenue gross versus net), which clarifies gross versus net revenue reporting when another party is involved in the transaction. In April 2016, the FASB issued ASU 2016-10, Revenue from Contracts with Customers-Identifying Performance Obligations and Licensing, which amends the revenue guidance on identifying performance obligations and accounting for licenses of intellectual property. In May 2016, the FASB issued ASU 2016-12, Revenue from Contracts with Customers - Narrow-Scope Improvements and Practical Expedients, which provides narrow-scope improvements to the guidance on collectability, non-cash consideration, and completed contracts at transition. Entities can transition to the standard either retrospectively or as a cumulativeeffect adjustment as of the date of adoption. The standard will be effective for reporting periods beginning after December 15, 2017. We are still assessing the impact of ASU 2014-09, but we do not believe it will have a material effect on our financial position or results of operations.

There were no other accounting standards recently issued that had or are expected to have a material impact on our financial position or results of operations.

## 17. Commitments, Guarantees, Indemnifications and Legal Proceedings

We have financial commitments and obligations that arise in the ordinary course of our business. These include long-term debt, capital commitments, lease obligations, and purchase commitments for goods and services, and legal proceedings, all of which are discussed in Note 10, Debt, and Note 19, Commitments, Guarantees, Indemnifications, and Legal Proceedings, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2015 Annual Report on Form 10-K.

## Guarantees and Indemnifications

We provide guarantees, indemnifications, and other assurances to third parties in the normal course of our business. These include tort indemnifications, product guarantees, environmental assurances, and representations and warranties in commercial agreements. At June 30 , 2016 we are not aware of any material liabilities arising from any guarantee, indemnification, or financial assurance we have provided. If we determined such a liability was probable and subject to reasonable determination, we would accrue for it at that time.

## Legal proceedings

We are party to legal actions arising in the ordinary course of our business. These legal actions include commercial liability claims, premises liability claims, commercial disputes, and employment-related claims, among others. As of the date of this filing, we believe it is not reasonably possible that any of the legal actions against us will, either individually or in the aggregate, have a material adverse effect on our financial condition, results of operations, or cash flows.

## 18. Subsequent Events

The Company has disclosed the following subsequent event in accordance with Accounting Standards Codification (ASC) 855, "Subsequent Events." Subsequent events have been evaluated through the filing date of this Form 10-Q.

On July 1, 2016, we entered into a definitive agreement to acquire substantially all the assets of TimBar Corporation in a cash-free, debt-free transaction, for a cash purchase price of $\$ 386$ million. TimBar is a large independent corrugated products producer with $\$ 324$ million net sales for the year ended December 31, 2015. TimBar's operations include five corrugated products plants, two fulfillment centers and four design centers located primarily in the eastern and southeastern United States. Closing is subject to certain customary conditions and is expected in the third quarter of 2016. PCA expects to finance the transaction with a new term loan.

The operating results of TimBar will be included in PCA's results upon closing of the transaction.

Additionally, on July 29, 2016, we repaid in full the $\$ 25$ million that was outstanding under the five-year term loan due October 2018.

## Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This management's discussion and analysis includes statements regarding our expectations with respect to our future performance, expected business conditions, liquidity, and capital resources. Such statements, along with any other nonhistorical statements in the discussion, are forward-looking. These forward-looking statements are subject to numerous risks and uncertainties, including, but not limited to, the risks and uncertainties described in our 2015 Annual Report on Form 10-K, as well as those factors listed in other documents we file with the Securities and Exchange Commission (SEC). We do not assume any obligation to update any forward-looking statement. Our actual results may differ materially from those contained in or implied by any of the forward-looking statements in this Form 10-Q. Please see "Forward Looking Statements" elsewhere in this Item 2.

## Overview

PCA is the fourth largest producer of containerboard and corrugated packaging products in the United States and the third largest producer of uncoated freesheet paper in North America, based on production capacity. We operate five containerboard mills, three paper mills, and 90 corrugated products manufacturing plants. Our corrugated products manufacturing plants produce a wide variety of corrugated packaging products, including conventional shipping containers used to protect and transport manufactured goods, multi-color boxes and displays with strong visual appeal that help to merchandise the packaged product in retail locations, and honeycomb protective packaging. In addition, we are a large producer of packaging for meat, fresh fruit and vegetables, processed food, beverages, and other industrial and consumer products. We also manufacture and sell white papers, including both commodity and specialty papers, which may have custom or specialized features such as colors, coatings, high brightness, and recycled content. We operate primarily in the United States.

This Item 2 is intended to supplement, and should be read in conjunction with, "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our 2015 Annual Report on Form 10-K.

## Executive Summary

Second quarter net sales were $\$ 1.42$ billion in 2016 and $\$ 1.45$ billion in 2015 . We reported $\$ 116$ million of net income, or $\$ 1.23$ per diluted share, during the second quarter of 2016, compared with $\$ 114$ million of net income, or $\$ 1.16$ per diluted share, during the same period in 2015 . Excluding the special items discussed below, we recorded $\$ 118$ million of net income, or $\$ 1.25$ per diluted share, during the second quarter of 2016 , compared with $\$ 116$ million, or $\$ 1.18$ per diluted share, in the second quarter of 2015 . Increased earnings per share was driven primarily by higher corrugated product volumes and lower costs for energy, fiber, and freight in our packaging and paper segments, and a lower share count resulting from share repurchases. Gains were partially offset by lower domestic containerboard, corrugated products, and white paper prices and mix, lower containerboard export prices, and lower containerboard and pulp volume.

During the first six months of 2016 we reported $\$ 220$ million of net income, or $\$ 2.32$ per diluted share, compared with $\$ 205$ million, or $\$ 2.08$ per diluted share, during the same period in 2015. Excluding special items discussed below, we recorded $\$ 223$ million of net income, or $\$ 2.36$ per diluted share, during the first six months of 2016, compared with $\$ 215$ million, or $\$ 2.19$ per diluted share, in the first six months of 2015 . Increased earnings per share was driven primarily by higher volumes and lower maintenance costs in our packaging segment; energy, fiber and freight costs were lower in both our packaging and
paper segments, and a lower share count resulting from share repurchases. Gains were partially offset by lower prices and mix in white paper, containerboard, and corrugated products.

Packaging segment income from operations was $\$ 192$ million in the second quarter of 2016, compared to $\$ 195$ million in the second quarter of 2015. Packaging segment earnings before interest, taxes, depreciation, amortization, and depletion (EBITDA) excluding special items was $\$ 267$ million in each of the second quarters of 2016 and 2015. Compared to the second quarter of 2015, corrugated products shipments were higher while containerboard and corrugated prices and mix were down due to lower export prices and industry published price decreases. During the second quarter of 2016, we successfully completed scheduled maintenance outages at our Tomahawk, Counce, and Wallula mills.

Packaging segment income from operations was $\$ 354$ million in the first six months of 2016, compared to $\$ 336$ million in the first six months of 2015. Packaging segment EBITDA excluding special items was $\$ 503$ million in the first six months of 2016 , compared to $\$ 489$ million in the first six months of 2015. Compared to the first six months of 2015, both containerboard and corrugated products shipments were higher with lower mill outage and energy costs, while containerboard and corrugated prices and mix were down.

Paper segment income from operations was $\$ 24$ million in the second quarter of 2016, compared to $\$ 23$ million in the second quarter of 2015 . Paper segment EBITDA excluding special items increased to $\$ 39$ million in the second quarter of 2016, compared to $\$ 37$ million in the second quarter of 2015. White paper shipments were flat and pulp shipments were lower, compared with last year's second quarter. White paper prices and mix were unfavorable to last year’s second quarter; however, our mills ran efficiently and effectively managed costs throughout the quarter, leading to strong margin performance.

Paper segment income from operations was $\$ 61$ million in the first six months of 2016, compared to $\$ 59$ million in the first six months of 2015. Paper segment EBITDA excluding special items was $\$ 90$ million in the first six months of 2016, compared to $\$ 86$ million in the first six months of 2015. White paper shipments were flat and pulp shipments were lower, compared with the first six months of last year. White paper prices and mix were unfavorable; however, fiber and energy costs were lower, leading to increased margins.

## Special Items and Earnings per Diluted Share, Excluding Special Items

The second quarters of 2016 and 2015 both included $\$ 3$ million of pre-tax expense for special items. The special items in the second quarter of 2016 included $\$ 2$ million for to facilities closure costs related to corrugated manufacturing facilities and a paper distribution center and $\$ 1$ million related to our withdrawal from a multiemployer pension plan for one of our corrugated products facilities. The three months ended June 30, 2015 included $\$ 4$ million of Boise acquisition integration-related and other costs and $\$ 1.0$ million of income for insurance proceeds received related to the DeRidder mill restructuring.

The six months ended June 30, 2016 included $\$ 6$ million of pre-tax expense for special items, compared with $\$ 16$ million of pre-tax expense for special items during the same period in 2015. The six months ended June 30, 2016 included $\$ 5$ million for facilities closure costs related to corrugated manufacturing facilities and a paper distribution center and $\$ 1$ million related to our withdrawal from a multiemployer pension plan for one of our corrugated products facilities. The six months ended June 30, 2015 included $\$ 7$ million of Boise acquisition integration-related and other costs and $\$ 9$ million of expenses related to the DeRidder mill restructuring.

A reconciliation of reported earnings per diluted share to earnings per share, excluding special items, for the three and six months ended June 30 , 2016 and 2015 are as follows:

|  | Three Months Ended June 30 |  |  |  | Six Months Ended June 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  | 2015 |  | 2016 |  | 2015 |  |
| Earnings per diluted share, as reported | \$ | 1.23 | \$ | 1.16 | \$ | 2.32 | \$ | 2.08 |
| Special items (a): |  |  |  |  |  |  |  |  |
| Facilities closure costs |  | 0.01 |  | - |  | 0.03 |  | - |
| Multiemployer pension plan withdrawal |  | 0.01 |  | - |  | 0.01 |  | - |
| Acquisition-related costs |  | - |  | - |  | - |  | - |
| DeRidder restructuring |  | - |  | (0.01) |  | - |  | 0.06 |
| Integration-related and other costs |  | - |  | 0.03 |  | - |  | 0.05 |
| Total special items |  | 0.02 |  | 0.02 |  | 0.04 |  | 0.11 |
| Earnings per diluted share, excluding special items | \$ | 1.25 | \$ | 1.18 | \$ | 2.36 | \$ | 2.19 |

(a) See "Reconciliations of Non-GAAP Financial Measures to Reported Amounts" in this Management's Discussion and Analysis of Financial Condition and Results of Operations for more information on the special items.

Management excludes special items as it believes these items are not necessarily reflective of the ongoing results of operations of our business. We present these measures because they provide a means to evaluate the performance of our segments and our company on an ongoing basis using the same measures that are used by our management, because these measures assist in providing a meaningful comparison between periods presented and because these measures are frequently used by investors and other interested parties in the evaluation of companies and the performance of their segments. A reconciliation of diluted EPS to diluted EPS excluding special items is included above and the reconciliations of other non-GAAP measures used in this Management's Discussion and Analysis of Financial Condition and Results of Operations, to the most comparable measure reported in accordance with GAAP, are included in Item 2 under "Reconciliations of Non-GAAP Financial Measures to Reported Amounts." Any analysis of non-GAAP financial measures should be done in conjunction with results presented in accordance with GAAP. The non-GAAP measures are not intended to be substitutes for GAAP financial measures and should not be used as such.

## Industry and Business Conditions

Trade publications reported that industry-wide corrugated products shipments increased $1.8 \%$ during the second quarter of 2016, compared with the same quarter in 2015, and remained essentially flat per workday with one less workday in 2015. Reported industry containerboard production was flat compared with the second quarter of 2015, and reported industry containerboard inventories at the end of the second quarter of 2016 were approximately 2.4 million tons, down $2.6 \%$ compared to the same period in 2015. Reported containerboard export shipments were up $1.7 \%$ compared to the second quarter of 2015.

The market for communication papers competes heavily with electronic data transmission and document storage alternatives. Increasing shifts to these alternatives have reduced usage of traditional print media and communication papers. Trade publications reported that uncoated freesheet paper shipments were down $2.8 \%$ in the second quarter of 2016, compared with the same quarter in 2015. Average prices reported by a trade publication for cut size office papers were lower by $\$ 27$ per ton, or $2.7 \%$, in the second quarter of 2016 , compared with the second quarter of 2015.

## Outlook

Looking ahead to the third quarter 2016, we expect higher containerboard, corrugated products and white paper shipments. Paper prices should move higher reflecting continued realization of the announced price increases in first quarter 2016, and our annual outage costs will be lower. We expect a less rich mix in corrugated products and higher prices for recycled fiber, electricity and fuels. Considering these items, we expect third quarter earnings, excluding special items, to be higher than our second quarter earnings. We expect to complete the acquisition of TimBar later in the third quarter, subject to the satisfaction of customary conditions.

## Results of Operations

## Three Months Ended June 30, 2016, compared with Three Months Ended June 30, 2015

The historical results of operations of PCA for the three months ended June 30, 2016 and 2015 are set forth below (dollars in millions):

|  | Three Months Ended June 30 |  |  |  | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  | 2015 |  |  |  |
| Packaging | \$ | 1,125 | \$ | 1,142 | \$ | (17) |
| Paper |  | 267 |  | 281 |  | (14) |
| Corporate and Other |  | 60 |  | 66 |  | (6) |
| Intersegment eliminations |  | (35) |  | (35) |  | - |
| Net sales | \$ | 1,417 | \$ | 1,454 | \$ | (37) |
|  |  |  |  |  |  |  |
| Packaging | \$ | 192 | \$ | 195 | \$ | (3) |
| Paper |  | 24 |  | 23 |  | 1 |
| Corporate and Other |  | (16) |  | (21) |  | 5 |
| Income from operations | \$ | 200 | \$ | 197 | \$ | 3 |
| Interest expense, net |  | (22) |  | (22) |  | - |
| Income before taxes |  | 178 |  | 175 |  | 3 |
| Income tax provision |  | (62) |  | (61) |  | (1) |
| Net income | \$ | 116 | \$ | 114 | \$ | 2 |
| Non-GAAP Measures (a) |  |  |  |  |  |  |
| Net income excluding special items | \$ | 118 | \$ | 116 | \$ | 2 |
| Consolidated EBITDA |  | 288 |  | 284 |  | 4 |
| Consolidated EBITDA excluding special items |  | 290 |  | 287 |  | 3 |
| Packaging EBITDA |  | 264 |  | 267 |  | (3) |
| Packaging EBITDA excluding special items |  | 267 |  | 267 |  | - |
| Paper EBITDA |  | 39 |  | 37 |  | 2 |
| Paper EBITDA excluding special items |  | 39 |  | 37 |  | 2 |

(a) See "Reconciliations of Non-GAAP Financial Measures to Reported Amounts" included in this Item 2 for a reconciliation of non-GAAP measures to the most comparable GAAP measure.

## Net Sales

Net sales decreased $\$ 37$ million, or $2.5 \%$, to $\$ 1,417$ million during the three months ended June 30, 2016, compared with $\$ 1,454$ million during the same period in 2015.

Packaging. Net sales decreased $\$ 17$ million, or $1.5 \%$, to $\$ 1,125$ million, compared with $\$ 1,142$ million in the second quarter of 2015 , primarily due to lower export and domestic containerboard and corrugated products price and mix (\$30 million) and lower domestic and export containerboard volume (\$4 million), partially offset by increased corrugated products volume ( $\$ 17$ million). Our domestic and export containerboard prices in the second quarter of 2016 decreased $4.9 \%$ and $8.6 \%$, respectively, compared with the same quarter last year, due to published price decreases. In the second quarter of 2016 , our containerboard outside shipments decreased $8.0 \%$, and corrugated products shipments were up $2.2 \%$, compared with the second quarter of 2015 .

Paper. Net sales during the three months ended June 30, 2016 decreased $\$ 14$ million, or $5.0 \%$, to $\$ 267$ million, compared with $\$ 281$ million in the second quarter of 2015 . Sales decreased primarily due to lower volume ( $\$ 13$ million) and changes in price and mix ( $\$ 1$ million). White paper prices and mix in the second quarter of 2016 decreased $3.0 \%$ compared with
the same period last year. In the second quarter of 2016, our white paper shipments increased slightly, which was more than offset by lower pulp shipments ( 17,000 tons) compared to the second quarter of 2015.

## Gross Profit

Gross profit was relatively flat, increasing $\$ 2$ million during the three months ended June 30 , 2016, compared with the same period in 2015. The increase was primarily due to higher corrugated products volumes and lower energy, freight, and fiber, partially offset by lower prices and mix in white paper, containerboard and corrugated products. In the second quarters of 2016 and 2015, there were no significant special items impacting gross profit.

## Selling, General, and Administrative Expenses

Selling, general, and administrative expenses were relatively flat, decreasing $\$ 1$ million during the three months ended June 30, 2016, compared with the same period in 2015. The decrease was due primarily to lower administrative employee costs.

## Other Expense, Net

Other expense, net, during the three months ended June 30 , 2016 was $\$ 5$ million, compared with $\$ 4$ million during the three months ended June 30, 2015. The second quarter of 2016 included $\$ 1$ million of facilities closure costs, $\$ 1$ million of asset disposal expense, and $\$ 1$ million of costs related to our withdrawal from a multiemployer pension plan for one of our corrugated products facilities. The second quarter of 2015 included $\$ 4$ million of asset disposal expense and $\$ 4$ million of integration-related and other costs, partially offset by $\$ 1$ million of insurance proceeds received related to the DeRidder mill restructuring. We discuss these items in more detail in Note 3, Other Expense, Net of the Condensed Notes to Unaudited Quarterly Consolidated Financial Statements in "Part I, Item1. Financial Statements" of this Form 10-Q.

## Income from Operations

Income from operations increased $\$ 3$ million, or $1.5 \%$, during the three months ended June 30, 2016, compared with the same period in 2015. The second quarters of 2016 and 2015 each included $\$ 3$ million of expense from special items. The special items in the second quarter of 2016 included $\$ 2$ million related to facilities closure costs related to corrugated manufacturing facilities and a paper distribution center and $\$ 1$ million related to our withdrawal from a multiemployer pension plan for one of our corrugated products facilities. The three months ended June 30, 2015 included $\$ 4$ million of Boise acquisition integration-related and other costs and $\$ 1$ million of income for insurance proceeds received related to the DeRidder mill restructuring. In addition to the net difference resulting from special items of $\$ 3$ million discussed above, income from operations increased $\$ 3$ million during the three months ended June 30 , 2016, compared with the same period in 2015. The increase was primarily due to increased corrugated products volumes and lower operating costs, partially offset by lower prices and mix in white paper, containerboard and corrugated products.

Packaging. Packaging segment income from operations was relatively flat, decreasing $\$ 3$ million to $\$ 192$ million, compared with $\$ 195$ million during the three months ended June 30, 2015. The decrease in the second quarter of 2016 related primarily to lower domestic containerboard and corrugated products prices and mix ( $\$ 6$ million), lower domestic and export containerboard volume ( $\$ 6$ million), lower export prices ( $\$ 4$ million), higher depreciation and other fixed costs ( $\$ 3$ million), and higher labor costs ( $\$ 1$ million), offset by lower freight costs ( $\$ 6$ million), higher corrugated products volume ( $\$ 6$ million), and lower energy costs ( $\$ 6$ million). Special items included $\$ 1$ million of facilities closure costs and $\$ 1$ million related to our withdrawal from a multiemployer pension plan for one of our corrugated products facilities in the second quarter of 2016 and $\$ 1$ million of income for insurance proceeds received related to the DeRidder mill restructuring and $\$ 2$ million of integration-related and other costs related to the Boise acquisition for the same period in 2015.

Paper. Paper segment income from operations was relatively flat, increasing $\$ 1$ million to $\$ 24$ million, compared with $\$ 23$ million during the three months ended June 30, 2015. The increase primarily related to lower fiber ( $\$ 6$ million) and energy ( $\$ 3$ million) costs, partially offset by lower white paper prices and mix ( $\$ 2$ million), lower pulp volume ( $\$ 3$ million), and higher mill outage costs ( $\$ 2$ million).

## Interest Expense, Net, and Income Taxes

Interest expense, net, remained flat at \$22 million in both the three months ended June 30, 2016 and 2015.

During the three months ended June 30, 2016, we recorded $\$ 62$ million of income tax expense, compared with $\$ 61$ million of expense during the three months ended June 30, 2015. The effective tax rate for the three months ended June 30, 2016 and 2015 was $34.8 \%$ and $35.0 \%$, respectively.

Six Months Ended June 30, 2016, compared with Six Months Ended June 30, 2015

|  | Six Months Ended June 30 |  |  |  | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  | 2015 |  |  |  |
| Packaging | \$ | 2,221 | \$ | 2,242 | \$ | (21) |
| Paper |  | 547 |  | 578 |  | (31) |
| Corporate and Other |  | 122 |  | 127 |  | (5) |
| Intersegment eliminations |  | (72) |  | (67) |  | (5) |
| Net sales | \$ | 2,818 | \$ | 2,880 | \$ | (62) |
|  |  |  |  |  |  |  |
| Packaging | \$ | 354 | \$ | 336 | \$ | 18 |
| Paper |  | 61 |  | 59 |  | 2 |
| Corporate and Other |  | (34) |  | (40) |  | 6 |
| Income from operations | \$ | 381 | \$ | 355 | \$ | 26 |
| Interest expense, net |  | (44) |  | (42) |  | (2) |
| Income before taxes |  | 337 |  | 313 |  | 24 |
| Income tax provision |  | (117) |  | (108) |  | (9) |
| Net income | \$ | 220 | \$ | 205 | \$ | 15 |
| Non-GAAP Measures (a) |  |  |  |  |  |  |
| Net income excluding special items | \$ | 223 | \$ | 215 | \$ | 8 |
| Consolidated EBITDA |  | 557 |  | 535 |  | 22 |
| Consolidated EBITDA excluding special items |  | 563 |  | 542 |  | 21 |
| Packaging EBITDA |  | 499 |  | 487 |  | 12 |
| Packaging EBITDA excluding special items |  | 503 |  | 489 |  | 14 |
| Paper EBITDA |  | 89 |  | 86 |  | 3 |
| Paper EBITDA excluding special items |  | 90 |  | 86 |  | 4 |

(a) See "Reconciliations of Non-GAAP Financial Measures to Reported Amounts" included in this Item 2 for a reconciliation of non-GAAP measures to the most comparable GAAP measure.

## Net Sales

Net sales decreased $\$ 62$ million, or $2.2 \%$, to $\$ 2,818$ million during the six months ended June 30,2016 , compared with $\$ 2,880$ million during the same period in 2015.

Packaging. Net sales decreased $\$ 21$ million, or $0.9 \%$, to $\$ 2,221$ million, compared with $\$ 2,242$ million in the six months ended June 30, 2015, primarily due to lower export and domestic containerboard and corrugated products price and mix ( $\$ 48$ million), lower sales due to the divestiture of our Hexacomb operations in Mexico and Europe in 2015 ( $\$ 11$ million), and lower export and domestic containerboard volume ( $\$ 5$ million), partially offset by increased corrugated products volumes ( $\$ 43$ million). Domestic and export containerboard prices in the first six months of 2016 decreased $4.5 \%$ and $8.0 \%$, respectively, compared with the same period last year, due to published price decreases. In the first six months of 2016, our containerboard outside shipments decreased $4.7 \%$, and corrugated products shipments were up $2.8 \%$, compared with the first six months of 2015.

Paper. Net sales during the six months ended June 30, 2016 decreased $\$ 31$ million, or $5.4 \%$, to $\$ 547$ million, compared with $\$ 578$ million in the six months ended June 30, 2015. Sales decreased primarily due to lower volume ( $\$ 26$ million) and changes in price and mix ( $\$ 5$ million). White paper prices and mix in the first six months of 2016 decreased 3.0\%
compared with the same period last year. In the first six months of 2016, our white paper shipments were flat and pulp shipments decreased (27,000 tons) compared with the same period last year.

## Gross Profit

Gross profit increased $\$ 24$ million, or $4.0 \%$, during the six months ended June 30, 2016, compared with the same period in 2015 . The increase was primarily due to higher corrugated products volumes and lower energy, fiber, freight, and maintenance costs, partially offset by lower white paper, containerboard and corrugated products prices and mix, and lower pulp volume. In the first six months of 2016 and 2015, gross profit included special items of $\$ 1$ million for facilities closure costs and $\$ 9$ million for DeRidder mill restructuring charges, respectively, most of which related to incremental depreciation expense associated with changing the estimated useful lives of mill assets.

## Selling, General, and Administrative Expenses

Selling, general, and administrative expenses decreased $\$ 4$ million, or $1.7 \%$, during the six months ended June 30, 2016, compared with the same period in 2015. The decrease was due primarily to lower administrative employee costs from the headcount reductions related to the Boise integration.

## Other Expense, Net

Other expense, net, during the six months ended June 30, 2016 was $\$ 9$ million, compared with $\$ 7$ million during the six months ended June 30 , 2015. The six months ended June 30, 2016 included $\$ 3$ million of facilities closure costs, $\$ 3$ million of asset disposal expense, and $\$ 1$ million of costs related to our withdrawal from a multiemployer pension plan for one of our corrugated products facilities. The six months ended June 30, 2015 included $\$ 7$ million of integration-related and other costs relating to the Boise acquisition and $\$ 5$ million of asset disposal expense, partially offset by $\$ 4$ million of income from a refundable state tax credit received related to our investments and the jobs retained at DeRidder. We discuss these items in more detail in Note 3 , Other Expense, Net of the Condensed Notes to Unaudited Quarterly Consolidated Financial Statements in "Part I, Item1. Financial Statements" of this Form 10-Q.

## Income from Operations

Income from operations increased $\$ 26$ million, or $7.3 \%$, during the six months ended June 30, 2016, compared with the same period in 2015 . The first six months of 2016 included $\$ 6$ million of expense from special items, compared with $\$ 16$ million of expense from special items in the first six months of 2015. Special items for the six months ended June 30, 2016 included $\$ 4$ million related to facilities closure costs related to corrugated manufacturing facilities and a paper distribution center and $\$ 1$ million related to our withdrawal from a multiemployer pension plan for one of our corrugated products facilities. The six months ended June 30, 2015 included $\$ 9$ million of charges related to restructuring the DeRidder mill and $\$ 7$ million of Boise acquisition integration-related and other costs. In addition to the net difference resulting from special items of $\$ 6$ million discussed above, income from operations increased $\$ 16$ million during the six months ended June 30, 2016, compared with the same period in 2015. The increase was primarily due to increased corrugated products volumes and lower operating costs, partially offset by lower prices and mix in white paper, containerboard and corrugated products.

Packaging. Packaging segment income from operations increased $\$ 18$ million, or $5.4 \%$, to $\$ 354$ million, compared with $\$ 336$ million during the six months ended June 30, 2015. The increase in the first six months of 2016 related primarily to lower mill outage ( $\$ 13$ million), freight ( $\$ 12$ million), and energy ( $\$ 10$ million) costs, higher volume ( $\$ 5$ million), and lower expense for special items ( $\$ 8$ million) compared to the same period in 2015 , offset partially by lower containerboard and corrugated products prices and mix ( $\$ 19$ million), depreciation ( $\$ 4$ million), and labor ( $\$ 4$ million) costs, and a state incentive received in 2015 related to investments at our DeRidder mill ( $\$ 4$ million). Special items included $\$ 3$ million of facilities closure costs and $\$ 1$ million related to our withdrawal from a multiemployer pension plan for one of our corrugated products facilities in the first six months of 2016 and $\$ 9$ million of DeRidder restructuring charges and $\$ 3$ million of integration-related and other costs relating to the Boise acquisition for the same period in 2015.

Paper. Paper segment income from operations was relatively flat, increasing $\$ 2$ million to $\$ 61$ million, compared to the six months ended June 30 , 2015. Costs were lower for fiber ( $\$ 11$ million) and energy ( $\$ 8$ million) in the first half of 2016 compared to the same period in 2015, partially offset by lower white paper prices and mix ( $\$ 7$ million), lower pulp volume ( $\$ 6$ million), and higher mill outage ( $\$ 2$ million) costs and other costs that were individually insignificant.

## Interest Expense, Net, and Income Taxes

Interest expense, net, was $\$ 44$ million during the six months ended June 30, 2016, compared with $\$ 42$ million during the six months ended June 30 , 2015. The increase in interest expense was primarily due to lower interest rebate income related to one of our term loans recorded in the first quarter of 2016 compared to the first quarter of 2015.

During the six months ended June 30, 2016, we recorded $\$ 117$ million of income tax expense, compared with $\$ 108$ million of expense during the six months ended June 30, 2015. The effective tax rate for the six months ended June 30, 2016 and 2015 was 34.8\% and 34.6\%, respectively.

## Liquidity and Capital Resources

## Sources and Uses of Cash

Our primary sources of liquidity are net cash provided by operating activities and available borrowing capacity under our revolving credit facility. At June 30, 2016 we had $\$ 214$ million of cash and $\$ 326$ million of unused borrowing capacity under the revolving credit facility, net of letters of credit. Currently, our primary uses of cash are for operations, capital expenditures, debt service (including voluntary payments of debt), repurchases of common stock, and declared common stock dividends. We believe that net cash generated from operating activities, cash on hand, available borrowings under our revolving credit facility, and available capital through access to capital markets will be adequate to meet our liquidity and capital requirements, including payments of any declared common stock dividends, for the foreseeable future. As our debt or credit facilities become due, we will need to repay, extend, or replace such facilities. Our ability to do so will be subject to future economic conditions and financial, business, and other factors, many of which are beyond our control.

Below is a summary table of our cash flows, followed by a discussion of our sources and uses of cash through operating activities, investing activities, and financing activities (dollars in millions):

|  | Six Months Ended June 30 |  |  |  | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  | 2015 |  |  |  |
| Net cash provided by (used for): |  |  |  |  |  |  |
| Operating activities | \$ | 371 | \$ | 305 | \$ | 66 |
| Investing activities |  | (128) |  | (124) |  | (4) |
| Financing activities |  | (214) |  | (142) |  | (72) |
| Net increase in cash and cash equivalents | \$ | 29 | \$ | 39 | \$ | (10) |

## Operating Activities

During the six months ended June 30, 2016, net cash provided by operating activities was $\$ 371$ million, compared with $\$ 305$ million in the same period in 2015, an increase of $\$ 66$ million. Cash from operations excluding changes in cash used for operating assets and liabilities increased $\$ 8$ million, primarily due to higher income as discussed above. The remaining $\$ 58$ million increase from changes in cash used for operating assets and liabilities was primarily due to the following: (a) a smaller increase in our accounts receivable in the first six months of 2016 related to differences in the timing of collections of receivables, primarily in the Paper segment and (b) an increase in taxes payable resulting from higher taxable income levels in the first six months of 2016 compared to the same quarter in the prior period. Cash requirements for operating activities are subject to PCA's operating needs and the timing of collection of receivables and payments of payables and expenses.

## Investing Activities

Net cash used for investing activities during the six months ended June 30, 2016 decreased $\$ 4$ million, to $\$ 128$ million, compared with $\$ 124$ million during the same period in 2015. We spent $\$ 122$ million for capital investments during the six months ended June 30, 2016, compared with $\$ 142$ million during the same period in 2015. We received $\$ 23.0$ million of cash proceeds for the sale of our Hexacomb corrugated manufacturing operations in Mexico and Europe during the first six months of 2015.

We expect capital investments to be between $\$ 250$ million and $\$ 285$ million in 2016, excluding any acquisitions or other strategic activities. These expenditures could increase or decrease as a result of a number of factors, including our financial results, future economic conditions, and our regulatory compliance requirements. We currently estimate capital expenditures to comply with Boiler MACT regulations in 2016 of up to $\$ 3$ million, and we expect other environmental capital expenditures of about $\$ 5$ million in 2016. Our estimated environmental expenditures could vary significantly depending upon the enactment of new environmental laws and regulations, including those related to greenhouse gas emissions and industrial boilers. For additional information, see "Environmental Matters" in "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of our 2015 Annual Report on Form 10-K.

## Financing Activities

During the six months ended June 30, 2016, we used $\$ 214$ million for financing activities, compared with $\$ 142$ million during the same period in 2015. The increase in cash used for financing activities primarily related to an increase in share repurchases and a higher dividend payment. In the first six months of 2016, we paid $\$ 105$ million of dividends compared with $\$ 93$ million of dividends paid during the first six months of 2015. On February 26, 2015 PCA's Board of Directors increased the regular quarterly cash dividend to $\$ 0.55$ per share from the previous $\$ 0.40$ per share dividend, beginning with the dividend paid on April 15, 2015. During the six months ended June 30, 2016, we paid $\$ 100$ million to repurchase $1,987,187$ shares of common stock, compared with $\$ 43$ million of share repurchases in the same period in 2015 . We also withheld shares from vesting equity awards to cover employee tax liabilities of $\$ 10$ million in the first six months of 2016, compared with $\$ 7$ million in the same period of 2015.

As PCA completed share repurchases under its prior authorization, on February 25, 2016 PCA announced that its Board of Directors authorized the repurchase of an additional $\$ 200$ million of the Company's outstanding common stock. Repurchases may be made from time to time in open market or privately negotiated transactions in accordance with applicable securities regulations. The timing and amount of repurchases will be determined by the Company in its discretion based on factors such as PCA's stock price and market and business conditions.

For more information about our debt, see Note 10, Debt, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2015 Annual Report on Form 10-K.

## Contractual Obligations

On July 1, 2016 we entered into a definitive agreement to acquire substantially all of the assets of TimBar Corporation for a cash purchase price of $\$ 386$ million. Closing is subject to certain customary conditions and is expected in the third quarter of 2016.

There have been no other material changes to the contractual obligations table disclosed in Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" of our 2015 Annual Report on Form 10-K.

## Reconciliations of Non-GAAP Financial Measures to Reported Amounts

Income from operations excluding special items, net income excluding special items, EBITDA, and EBITDA excluding special items are non-GAAP financial measures. Management excludes special items as it believes that these items are not necessarily reflective of the ongoing operations of our business. These measures are presented because they provide a means to evaluate the performance of our segments and our Company on an ongoing basis using the same measures that are used by our management, because these measures assist in providing a meaningful comparison between periods and because these measures are frequently used by investors and other interested parties in the evaluation of companies and the performance of their segments. Any analysis of non-GAAP financial measures should be done in conjunction with results presented in accordance with GAAP. The non-GAAP measures are not intended to be substitutes for GAAP financial measures and should not be used as such. Reconciliations of the non-GAAP measures to the most comparable measure reported in accordance with GAAP for the three and six months ended June 30, 2016 and 2015 follow (dollars in millions):

|  | Three Months Ended June 30 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  |  |  |  |  | 2015 |  |  |  |
|  | Income before Taxes |  | Income Taxes |  | $\begin{gathered} \text { Net } \\ \text { Income } \end{gathered}$ |  | Income before Taxe | $\begin{aligned} & \text { Income } \\ & \text { Taxes } \end{aligned}$ |  | $\begin{gathered} \text { Net } \\ \text { Income } \end{gathered}$ |
| As reported in accordance with GAAP | \$ | 177.7 | \$ | (61.8) | \$ | 115.9 | \$ 175.4 | \$ | (61.4) | \$ 114.0 |
| Special items: |  |  |  |  |  |  |  |  |  |  |
| Facilities closure costs (a) |  | 1.7 |  | (0.7) |  | 1.0 | - |  | - | - |
| Acquisition-related costs (b) |  | 0.3 |  | (0.1) |  | 0.2 | - |  | - | - |
| Multiemployer pension plan withdrawal (c) |  | 0.9 |  | (0.3) |  | 0.6 | - |  | - | - |
| DeRidder restructuring (d) |  | - |  | - |  | - | (1.0) |  | 0.3 | (0.7) |
| Integration-related and other costs (e) |  | - |  | - |  | - | 3.7 |  | (1.4) | 2.3 |
| Total special items |  | 2.9 |  | (1.1) |  | 1.8 | 2.7 |  | (1.1) | 1.6 |
| Excluding special items | \$ | 180.6 | \$ | (62.9) | \$ | 117.7 | \$ 178.1 | \$ | (62.5) | \$ 115.6 |


|  | Six Months Ended June 30 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  |  |  |  |  | 2015 |  |  |  |
|  | Income before Taxes |  | Income Taxes |  | Net Income |  | Income before Taxes | Income Taxes |  | Net <br> Income |
| As reported in accordance with GAAP | \$ | 336.9 | \$ | (117.3) | \$ | 219.6 | \$ 313.3 | \$ | (108.5) | \$ 204.8 |
| Special items: |  |  |  |  |  |  |  |  |  |  |
| Facilities closure costs (a) |  | 4.5 |  | (1.6) |  | 2.9 | - |  | - | - |
| Acquisition-related costs (b) |  | 0.3 |  | (0.1) |  | 0.2 | - |  | - | - |
| Multiemployer pension plan withdrawal (c) |  | 0.9 |  | (0.3) |  | 0.6 | - |  | - | - |
| DeRidder restructuring (d) |  | - |  | - |  | - | 9.3 |  | (3.4) | 5.9 |
| Integration-related and other costs (e) |  | - |  | - |  | - | 7.2 |  | (2.7) | 4.5 |
| Total special items |  | 5.7 |  | (2.0) |  | 3.7 | 16.5 |  | (6.1) | 10.4 |
| Excluding special items | \$ | 342.6 | \$ | (119.3) | \$ | 223.3 | \$ 329.8 | \$ | (114.6) | \$ 215.2 |

(a) The three and six months ended June 30, 2016 include facilities closure costs related to a corrugated products facility and a paper products facility. The closure costs are recorded within "Other expense, net" and "Cost of sales", as appropriate.
(b) The three and six months ended June 30, 2016 include acquisition-related costs for the announced TimBar Corporation acquisition, which we recorded in "Other expense, net".
(c) The three and six months ended June 30, 2016 include costs related to our withdrawal from a multiemployer pension plan for one of our corrugated products facilities. The costs are recorded in "Other expense, net".
(d) The three and six months ended June 30, 2015 include restructuring charges at our mill in DeRidder, Louisiana. The restructuring charges primarily related to accelerated depreciation and were mostly recorded in "Cost of sales".
(e) The three and six months ended June 30, 2015 include Boise acquisition integration-related and other costs, mostly recorded in "Other income (expense), net". These costs primarily relate to professional fees, severance, retention, relocation, travel, and other integration-related costs.

The following table reconciles net income to EBITDA and EBITDA excluding special items for the periods indicated (dollars in millions):

|  | Three Months Ended June 30 |  |  |  | Six Months Ended June 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  | 2015 |  | 2016 |  | 2015 |  |
| Net income | \$ | 115.9 | \$ | 114.0 | \$ | 219.6 | \$ | 204.8 |
| Interest expense, net |  | 22.5 |  | 22.2 |  | 44.1 |  | 41.4 |
| Income tax provision |  | 61.8 |  | 61.4 |  | 117.3 |  | 108.5 |
| Depreciation, amortization, and depletion |  | 87.6 |  | 86.8 |  | 176.3 |  | 180.2 |
| EBITDA | \$ | 287.8 | \$ | 284.4 | \$ | 557.3 | \$ | 534.9 |
| Special items: |  |  |  |  |  |  |  |  |
| Facilities closure costs |  | 1.4 |  | - |  | 4.1 |  | - |
| Acquisition-related costs |  | 0.3 |  | - |  | 0.3 |  | - |
| Multiemployer pension plan withdrawal |  | 0.9 |  | - |  | 0.9 |  | - |
| DeRidder restructuring |  | - |  | (1.0) |  | - |  | 0.3 |
| Integration-related and other costs |  | - |  | 3.7 |  | - |  | 7.2 |
| EBITDA excluding special items | \$ | 290.4 | \$ | 287.1 | \$ | 562.6 | \$ | 542.4 |

The following table reconciles segment income (loss) to EBITDA and EBITDA excluding special items (dollars in millions):

|  | Three Months Ended June 30 |  |  |  | Six Months EndedJune 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 |  | 2015 |  | 2016 |  | 2015 |  |
| Packaging |  |  |  |  |  |  |  |  |
| Segment income | \$ | 192.4 | \$ | 194.6 | \$ | 353.9 | \$ | 335.7 |
| Depreciation, amortization, and depletion |  | 72.0 |  | 72.1 |  | 145.3 |  | 150.8 |
| EBITDA |  | 264.4 |  | 266.7 |  | 499.2 |  | 486.5 |
| Facilities closure costs |  | 1.4 |  | - |  | 3.3 |  | - |
| Multiemployer pension plan withdrawal |  | 0.9 |  | - |  | 0.9 |  | - |
| DeRidder restructuring |  | - |  | (1.0) |  | - |  | 0.3 |
| Integration-related and other costs |  | - |  | 1.7 |  | - |  | 2.6 |
| EBITDA excluding special items | \$ | 266.7 | \$ | 267.4 | \$ | 503.4 | \$ | 489.4 |


| Paper |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Segment income | \$ | 24.4 | \$ | 23.4 | \$ | 60.5 | \$ | 59.0 |
| Depreciation, amortization, and depletion |  | 14.3 |  | 13.7 |  | 28.5 |  | 27.4 |
| EBITDA |  | 38.7 |  | 37.1 |  | 89.0 |  | 86.4 |
| Facilities closure costs |  | - |  | - |  | 0.8 |  | - |
| EBITDA excluding special items | \$ | 38.7 | \$ | 37.1 | \$ | 89.8 | \$ | 86.4 |
|  |  |  |  |  |  |  |  |  |
| Corporate and Other |  |  |  |  |  |  |  |  |
| Segment loss | \$ | (16.6) | \$ | (20.4) | \$ | (33.4) | \$ | (40.0) |
| Depreciation, amortization, and depletion |  | 1.3 |  | 1.0 |  | 2.5 |  | 2.0 |
| EBITDA |  | (15.3) |  | (19.4) |  | (30.9) |  | (38.0) |
| Acquisition-related costs |  | 0.3 |  | - |  | 0.3 |  | - |
| Integration-related and other costs |  | - |  | 2.0 |  | - |  | 4.6 |
| EBITDA excluding special items | \$ | (15.0) | \$ | (17.4) | \$ | (30.6) | \$ | (33.4) |
|  |  |  |  |  |  |  |  |  |
| EBITDA excluding special items | \$ | 290.4 | \$ | 287.1 | \$ | 562.6 | \$ | 542.4 |

## Market Risk and Risk Management Policies

PCA is exposed to the impact of interest rate changes and changes in the market value of its financial instruments. We periodically enter into derivatives to minimize these risks, but not for trading purposes. At June 30, 2016 we had no derivative instruments outstanding. For a discussion of derivatives and hedging activities, see Note 14, Derivative Instruments and Hedging Activities, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2015 Annual Report on Form 10-K.

The interest rates on approximately $70 \%$ of PCA's debt are fixed. A one percent increase in interest rates related to variable-rate debt would have resulted in an increase in interest expense and a corresponding decrease in income before taxes of approximately $\$ 7$ million annually.

## Off-Balance-Sheet Activities

The Company does not have any off-balance sheet arrangements as of June 30, 2016.

## Environmental Matters

There have been no material changes to the disclosure set forth in Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations - Environmental Matters" filed with our 2015 Annual Report on Form 10-K.

## Critical Accounting Policies and Estimates

Management's discussion and analysis of financial condition and results of operations are based upon the Company's consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities. On an ongoing basis, PCA evaluates its estimates, including those related to pensions and other postretirement benefits, goodwill and intangible assets, long-lived asset impairment, and income taxes, among others. PCA bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

PCA has included in its 2015 Annual Report on Form 10-K a discussion of its critical accounting policies and estimates which require management's most difficult, subjective, or complex judgments used in the preparation of its consolidated financial statements. PCA has not had any changes to these critical accounting estimates during the first six months of 2016.

## New and Recently Adopted Accounting Standards

For a listing of our new and recently adopted accounting standards, see Note 16, New and Recently Adopted Accounting Standards, of the Condensed Notes to Unaudited Quarterly Consolidated Financial Statements in "Part I, Item 1. Financial Statements" of this Form 10-Q.

## Forward-Looking Statements

Some of the statements in this Quarterly Report on Form 10-Q, and in particular, statements found in this Management's Discussion and Analysis of Financial Condition and Results of Operations, that are not historical in nature are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are often identified by the words "will," "should," "anticipate," "believe," "expect," "intend," "estimate," "hope," or similar expressions. These statements reflect management's current views with respect to future events and are subject to risks and uncertainties. There are important factors that could cause actual results to differ materially from those in forward-looking statements, many of which are beyond our control. These factors, risks and uncertainties include the following:

- the impact of general economic conditions;
- the impact of acquired businesses and risks and uncertainties regarding operation, expected benefits and integration of such businesses;
- containerboard, corrugated products, and white paper general industry conditions, including competition, product demand, product pricing, and input costs;
- fluctuations in wood fiber and recycled fiber costs;
- fluctuations in purchased energy costs;
- the possibility of unplanned outages or interruptions at our principal facilities; and
- legislative or regulatory actions or requirements, particularly concerning environmental or tax matters.

Our actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements, and accordingly, we can give no assurances that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do occur, what impact they will have on our results of operations or financial condition. Given these uncertainties, investors are cautioned not to place undue reliance on these forward-looking statements. We expressly disclaim any obligation to publicly revise any forward-looking statements that have been made to reflect the occurrence of events after the date hereof. For a discussion of other factors, risks and uncertainties that may affect our business, see Item 1A. Risk Factors included in our Annual Report on Form 10-K for the year ended December 31, 2015.

For a discussion of market risks related to PCA, see Part I, Item 2, "Management’s Discussion and Analysis of Financial Condition and Results of Operations - Market Risk and Risk Management Policies" in this Quarterly Report on Form 10-Q.

## Item 4. CONTROLS AND PROCEDURES

PCA maintains disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934) that are designed to provide reasonable assurance that information required to be disclosed in PCA's filings under the Securities Exchange Act is recorded, processed, summarized and reported within the periods specified in the rules and forms of the SEC and that such information is accumulated and communicated to PCA's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Prior to filing this report, PCA completed an evaluation under the supervision and with the participation of PCA's management, including PCA's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of PCA's disclosure controls and procedures as of June 30, 2016. The evaluation of PCA's disclosure controls and procedures included a review of the controls' objectives and design, PCA's implementation of the controls, and the effect of the controls on the information generated for use in this report. Based on this evaluation, PCA's Chief Executive Officer and Chief Financial Officer concluded that PCA’s disclosure controls and procedures were effective at the reasonable assurance level as of June $30,2016$.

During the quarter ended June 30, 2016 there were no changes in internal controls over financial reporting that have materially affected, or are reasonably likely to materially affect, PCA’s internal control over financial reporting.

## PART II <br> OTHER INFORMATION

## Item 1. LEGAL PROCEEDINGS

The disclosure set forth under the caption "Legal Proceedings" in Note 17, Commitments, Guarantees, Indemnifications and Legal Proceedings, of the Condensed Notes to Unaudited Quarterly Consolidated Financial Statements in "Part I, Item 1. Financial Statements" of this Form 10-Q is incorporated herein by reference.

## Item 1A. RISK FACTORS

There have been no material changes to the risk factors disclosed in "Part I, Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2015.

## Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

The following table presents information related to our repurchases of common stock made under share repurchase authorizations approved by our board of directors on February 25, 2016 and shares withheld to cover taxes on vesting of equity awards, during the three months ended June 30, 2016:

| Issuer Purchases of Equity Securities |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period | Total Number of Shares Purchased (a) | Average Price Paid Per Share |  | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | Approximate <br> Dollar Value of Shares <br> That May Yet Be Purchased Under the Plans or Programs (in millions) |  |
| April 1-30, 2016 | 2,344 | \$ | 60.18 | - | \$ | 193.0 |
| May 1-31, 2016 | 551 |  | 64.90 | - |  | 193.0 |
| June 1-30, 2016 | 114,263 |  | 68.14 | - |  | 193.0 |
| Total | 117,158 | \$ | 67.97 | - | \$ | 193.0 |

(a) All shares were withheld from employees to cover income and payroll taxes on equity awards that vested during the period.

## Item 3. DEFAULTS UPON SENIOR SECURITIES

None

## Item 4. MINE SAFETY DISCLOSURES

Not applicable.

## Item 5. OTHER INFORMATION

None.

## Item 6. EXHIBITS

## Exhibit

Number Description
10.1 Form of executive officer restricted stock award (June 20, 2016) $\dagger$
$10.2 \quad$ Form of executive officer performance unit award (June 20, 2016) $\dagger$
31.1 Certification of Chief Executive Officer, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. $\dagger$
31.2 Certification of Chief Financial Officer, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. $\dagger$

32 Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. §1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. $\dagger$
101 The following financial information from Packaging Corporation of America's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Statements of Income and Comprehensive Income for the three months ended June 30, 2016 and 2015, (ii) Consolidated Balance Sheets at June 30, 2016 and December 31, 2015, (iii) Consolidated Statements of Cash Flows for the three months ended June 30, 2016 and 2015, and (iv) the Condensed Notes to Unaudited Quarterly Consolidated Financial Statements. $\dagger$
$\dagger$ Filed herewith.

## SIGNATURES

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

Packaging Corporation of America
/s/ Mark W. Kowlzan
Mark W. Kowlzan
Chief Executive Officer
/s/ Robert P. Mundy
Robert P. Mundy
Senior Vice President and Chief Financial Officer

# Packaging Corporation of America <br> Amended and Restated 1999 Long-Term Equity Incentive Plan <br> Executive Officer Restricted Stock Award Agreement 

By this agreement, Packaging Corporation of America ("PCA" or the "Company") grants to you the following restricted shares of the Company's common stock, $\$ .01$ par value, subject to the terms and conditions set forth below, in the attached Plan Prospectus, and in the Amended and Restated 1999 Long-Term Equity Incentive Plan, as may from time to time be amended and/or restated (the "Plan"), all of which are an integral part of this Agreement. A copy of the Amended and Restated 1999 Long-Term Equity Incentive Plan may be obtained from the Company upon request. Capitalized terms used and not defined herein have the meanings given to them in the Plan.

## Grant Date: June 20, 2016

## Number of Restricted Shares Awarded :

Fair Market Value at Grant:
Restriction expires: June 20, 2020

The shares of restricted stock granted under the Plan will be held in escrow by the Company on the participant's behalf during any period of restriction and will bear an appropriate legend specifying the applicable restrictions thereon, and, if requested, the participant will be required to execute a blank stock power therefor. During the period of restriction the participant shall have all of the rights of a holder of Common Stock, including but not limited to the rights to receive dividends and to vote, and any stock or other securities received as a distribution with respect to such participant's restricted stock shall be subject to the same restrictions as then in effect for the restricted stock.

This award is subject to the "Performance-Based Award Pool for Executive Officers" provisions (the "Pool Provisions") adopted by the Section 162(m) Subcommittee of the Compensation Committee on June 20, 2016. If the number of shares of restricted stock available to be awarded to you under the Pool Provisions (as certified by the Compensation Committee or the Section 162(m) Subcommittee) is less than the number of restricted shares awarded hereby, then the excess number of shares (i.e. the number by which this award exceeds the number certified by the Compensation Committee or the Section 162(m) Subcommittee) will be forfeited at the time of such certification, and only the number certified by the Compensation Committee or the Section 162(m) Subcommittee will vest at the time the restrictions herein expire.

This award is further subject to the Company's compensation recovery policy in effect from time to time.
Except as otherwise provided by the Board of Directors:
(1) at such time as a Participant ceases to be a director, officer, or employee of, or to otherwise perform services for, the Company and its Subsidiaries due to death or Disability, during any period of restriction, all restrictions on the shares granted to the Participant shall lapse;
(2) at such time as a Participant ceases to be, or in the event a participant does not become, a director, officer, or employee of, or otherwise perform services for, the Company or its Subsidiaries for any other reason, all shares of restricted stock granted to such Participant on which the restrictions have not lapsed shall be immediately forfeited to the Company.

If a Change in Control occurs prior to the fourth anniversary of the Date of Grant, then all restrictions on the shares granted to the Participant will lapse on the date of such Change in Control. Notwithstanding the foregoing, the restrictions will not lapse upon a Change in Control if an award meeting the following requirements (the "Replacement Award") is provided in substitution hereof:
(i) it relates to equity securities of the Company or its successor following the Change in Control or another entity that is affiliated with the Company or its successor following the Change in Control and such equity securities are publicly traded and registered under the Securities Exchange Act of 1934;
(ii) it has a value at least equal to the value of this award as of the date of the Change in Control as determined by the Committee;
(iii) it does not contain any performance goals and vesting is subject only to continued service with the Company or its successor following the Change in Control through the fourth anniversary of the original Grant Date. If a Change of Control occurs prior to certification of the number of shares available for this award pursuant to the Pool Provisions, then the Pool Provisions shall not be applicable and this award shall cover the full number of shares identified on the first page hereof.
(iv) its forfeiture provisions, transfer restrictions and any other restrictions lapse upon the fourth anniversary of the original Date of Grant; provided, however, that such restrictions will lapse, and the shares will fully vest, if within two years after the date of the Change in Control, the Participant's employment is terminated by the Company without Cause or the Participant resigns for Good Reason; and
(v) the terms and conditions of the Replacement Award with respect to dividends and a subsequent change in control are not less favorable to the Participant than the terms and conditions of this award.

Without limiting the generality of the foregoing, the Replacement Award may take the form of a continuation of this award or such other form approved by the Committee provided that the preceding requirements of this subsection are satisfied. The determination of whether the
requirements are satisfied shall be made by the Committee, as constituted immediately prior to the Change in Control, in its sole discretion. In the event of a Change in Control, Participant agrees to accept a Replacement Award meeting the above conditions in substitution of this award.
"Good Reason" means: (i) a change in the Participant’s job title or position, which results in a material diminution in authority, duties or responsibilities; (ii) any material breach of this agreement by the Company of any material obligation of the Company for the payment or provision of compensation or other benefits to the Participant; (iii) a material diminution in Participant’s compensation or a failure by the Company to provide an arrangement for the Participant for any fiscal year of the Company giving the Participant the opportunity to earn an incentive award for such year; or (iv) the Company requires Participant to materially change the location of Participant's principal office; provided such new location is one in excess of 35 miles from the location of Participant's principal office before such change.

Please indicate your acceptance of this Agreement by signing in the space provided below and returning this page to Halane Young, Executive Director, Total Rewards \& HRIS, located in Lake Forest.

## Packaging Corporation of America

By:

Title:

Date:

## Packaging Corporation of America

## 2016 Performance-Based Equity Award Pool for Executive Officers

## Adopted June 20, 2016

1. Purpose. The Committee intends to grant the Full Value Awards described herein (the "Awards") to the executive officers of Packaging Corporation of America (the "Company") named herein (the "Participants") pursuant to the Company’s Amended and Restated 1999 Long-Term Equity Incentive Plan (the "Plan") on or around the date hereof. The Section 162(m) Subcommittee desires to designate such Awards as Performance-Based Compensation and hereby adopts an award pool (the "Award Pool") of Shares available for such Awards subject to the Performance Criterion and other terms and conditions provided herein. Capitalized terms not otherwise defined herein shall have the meanings given to them in the Plan.
2. Performance Criterion. The Company's Earnings before Interest, Taxes, Depreciation and Amortization ("EBITDA") shall be established as the Performance Criterion for the Award Pool.
3. Award Pool Shares. The aggregate amount of Shares (the "Award Pool Shares") available for award to all Participants in the Award Pool shall be the number equal to (i) $3.0 \%$ of the Corporation's EBITDA for the period beginning April 1, 2016 and ending March 31, 2017 (the "EBITDA Performance Period"); divided by (ii) the closing price of a Share on the New York Stock Exchange on the date hereof.
4. Awards. Awards shall be in the form of "Restricted Stock Awards" (pursuant to the Restricted Stock Award Agreements attached hereto as Exhibit A) and "Performance Unit Awards" (pursuant to the Performance Unit Agreement attached hereto as Exhibit B).
5. Participant Percentages and Maximums. The percentage of Award Pool Shares (the "Award Pool Percentage") and the maximum number of Award Pool Shares (the "Participant

Maximum") available to be awarded to each Participant for each Award, shall be as set forth in the following table. For each Participant, half of his percentage of Award Pool shares is allocated to each type of Award.

| Participant | Percentage of Award Pool <br> Shares | Maximum for Restricted <br> Stock Awards (in shares) | Maximum for <br> Performance Units (in <br> shares)* |
| :--- | :---: | :---: | :---: |
| Mark W. Kowlzan | $40 \%$ | 33,469 | 40,163 |
| Thomas A. Hassfurther | $25 \%$ | 21,459 | 25,751 |
| Robert P. Mundy | $10 \%$ | 6,660 | 7,992 |
| Charles J. Carter | $12.5 \%$ | 6,913 | 8,296 |
| Thomas W.H. Walton | $6.25 \%$ | 4,255 | 5,106 |
| Kent A. Pflederer | $6.25 \%$ | 4,255 | 5,106 |

6. Certification of Award Pool. The Committee (or the Section 162(m) Subcommittee) shall certify the number of Award Pool Shares available for each Participant for each Award (the "Certified Share Number") within 75 days after the end of the EBITDA Performance Period, which shall be calculated by (a) multiplying (i) the Award Pool Percentage for such Participant for such Award by (ii) the aggregate number of Award Pool Shares and (b) if applicable, reducing the number calculated pursuant to subsection (a) to the Participant Maximum for such Award.
7. Award Agreement. The Committee (or the Section 162(m) Subcommittee) will reduce (but not increase) the actual number of Shares to be awarded to a Participant on vesting of an Award from the Certified Share Number for such Award to the extent necessary to achieve the level of vesting provided in the Award agreements attached hereto.
8. Plan Provisions. The Award Pool and Awards described herein are subject to, and made pursuant to, the terms and conditions of the Plan. If there is any inconsistency between the terms of the Award Pool or any Award agreement and the terms of the Plan, the terms of the Plan shall control unless expressly stated that an exception to the Plan is being made.

# PACKAGING CORPORATION OF AMERICA AMENDED AND RESTATED 1999 LONG-TERM EQUITY INCENTIVE PLAN PERFORMANCE UNIT AGREEMENT 

## PARTICIPANT:

DATE OF GRANT: June 20, 2016
NUMBER OF PERFORMANCE UNITS:
PERFORMANCE PERIOD: 2017-2019
VESTING DATE
June 20, 2020

This Agreement is entered into between Packaging Corporation of America., a Delaware corporation (the "Company"), and the Participant named above. In consideration of the mutual covenants hereinafter set forth and for other good and valuable consideration, the Company and the Participant hereby agree as follows:

1. Grant of Performance Units. Subject to the restrictions, terms and conditions of this Agreement and the Plan Documents (as hereafter defined), the Company hereby awards to the Participant the number of performance units stated above (the "Performance Units").
2. Governing Documents. This Agreement and the Performance Units awarded hereby are subject to all the restrictions, terms and provisions of the Amended and Restated 1999 Long-Term Equity Incentive Plan (the "Plan") and the 2016 Performance-Based Equity Award Pool for Executive Officers (the "Award Pool") adopted by the Section 162(m)
Subcommittee of the Compensation Committee on June 20, 2016 (together with the Plan, the "Plan Documents") which are herein incorporated by reference and to the terms of which the Participant hereby agrees. Capitalized terms used in this Agreement that are not defined herein shall have the meaning set forth in the Plan Documents.
3. No Stockholder Rights. The Performance Units will be a book entry credited in the name of the Participant representing a Full Value Award under the Plan and are not actual Shares. The Participant will not have the right to vote the Performance Units.
4. Vesting. Except as otherwise provided in the Plan Documents and subject to paragraphs 6 and 8 hereof, all of the Participant's Performance Units covered hereby shall (to the extent not previously forfeited) vest as of the occurrence of a Vesting Date (as defined on Exhibits A and B). The terms and conditions of vesting shall be as provided on Exhibit A and Exhibit B, which are separate and independent from each other, with the amount of Shares being paid out on vesting to equal the sum of: (i) the number of Shares vesting pursuant to Exhibit A; and (ii) the number of Shares vesting pursuant to Exhibit B. Payout on any vesting shall be in the form of Shares.
5. Forfeiture Upon Separation from Service. Except as provided by the Company's Compensation Committee or the Board of Directors, upon the Participant's cessation of employment (or provision of other services as permitted under the Plan Documents) prior to a Vesting Date for any reason, all Performance Units granted hereunder shall be forfeited.
6. Recovery of Unearned Compensation. The Performance Units are subject to the Company's compensation recovery policy as shall be in effect from time to time.
7. Dividend Equivalents. Dividend equivalents are hereby granted on the Performance Units, which shall accrue to the extent that dividends are declared on the Shares of the Company's common stock. Accrued dividend equivalents shall be paid out on the Vesting Date in Shares equal in value to the amount of dividends declared between the date of award and the Vesting Date on the number of Shares actually paid out pursuant to these Performance Units on such Vesting Date pursuant to Exhibits A and B (howsoever such vesting occurs).

Pool Provisions. This award is subject to the Award Pool. The number of Shares to be awarded on any Vesting Date may in no event exceed the number of Shares to which Participant is entitled under the Award Pool for this Award as 8. certified by the Committee in accordance with the Award Pool (the "Certified Share Amount"). In the event the number of Performance Units awarded hereby exceeds the Certified Share Amount, then such excess will be forfeited as of the date of such certification.

Miscellaneous. The Committee may from time to time modify or amend this Agreement in accordance with the provisions of the Plan Documents. This Agreement shall be binding upon and inure to the benefit of the Company and its successors and assigns and shall be binding upon and inure to the benefit of the Participant and his or her legatees,
9. distributees and personal representatives. By signing this Agreement, the Participant acknowledges and expressly agrees that the Participant has read the Agreement and the Plan Documents and agrees to their terms. This Agreement may be executed by the Company and the Participant by means of electronic or digital signatures, which shall have the same force and effect as manual signatures. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware.
10. Section 409A Compliance. It is the intention that this Agreement conform and be administered in all respects in a manner that complies with Section 409A of the Code; provided, however, that the Company does not make any representations or guarantees of the tax treatment of the award under Section 409A or otherwise.

Notwithstanding any provision contained in this Agreement to the contrary, if (i) any payment hereunder is subject to Section 409A of the Code, (ii) such payment is to be paid on account of the Participant's separation from service (within the meaning of Section 409A of the Code) and (iii) the Participant is a "specified employee" (within the meaning of Section 409A(a)(2)(B) of the Code), then such payment shall be delayed, if necessary, until the first day of the seventh month following the Participant's separation from service (or, if later, the date on which such payment is otherwise to be paid under this Agreement). With respect to any payments hereunder that are subject to Section 409A of the Code and that are payable on account of a separation from service, the determination of whether the Recipient has had a separation from service shall be determined in accordance with Section 409A of the Code.

IN WITNESS WHEREOF, the Company has caused this Agreement to be duly executed by its officer thereunto duly authorized, and the Participant has hereunto set his or her hand, all as of the Date of Grant written above.

## PACKAGING CORPORATION OF AMERICA

BY:
Participant

## Exhibit A

## Vesting Provision-Formula Component

1. Vesting Date. Vesting Date means, with respect to the vesting of Performance Units pursuant to this Exhibit A, the fourth anniversary of the Date of Grant, with the amount of Shares to be paid out to be determined pursuant to paragraph 2 below. Notwithstanding the foregoing: (a) in the event of the Participant's death or termination on account of Disability, the Vesting Date and amount of Shares to be paid out will be determined pursuant to paragraph 3 below: and (b) in the event of a Change in Control, the Vesting Date and amount of Shares to be paid out will be determined pursuant to paragraph 4 below. Dividend equivalents shall be paid on all Shares paid out upon vesting pursuant to Section 7 of the Performance Unit Agreement.
2. ROIC Peer Group Rank: In determining the actual number of Shares to be paid out pursuant to this Exhibit A on the Vesting Date, the Committee will determine the Company's average ROIC (as hereinafter defined) over the three years comprising the Performance Period (i.e., the arithmetic mean of ROICs for the three individual years) and compare such number against the average ROIC for the companies included in the Peer Group (as hereinafter defined). Based on the ranking of the Company’s ROIC with the Peer Group, Shares equal to the Applicable Percentage of the number of Performance Units will be paid out as follows:

Peer Group Ranking
Top quartile
Applicable Percentage
100\%

Second quartile 80\%
Third quartile 40\%
Fourth quartile

The "Peer Group" will include Aptargroup, Bemis, Berry Plastics, Cascades, Clearwater Paper, Crown Holdings, Domtar, Glatfelter, Graphic Packaging, Grief, International Paper, KapStone, Owens Illinois, Resolute Forest Products, Sealed Air, Silgan, Sonoco and Westrock. The Committee may modify the Peer Group for significant or extraordinary events outside the ordinary course of business, such as mergers or acquisitions, recapitalizations, bankruptcy or other events in which a Peer Group company ceases reporting financial results to the public.
"ROIC" means return on invested capital, which is calculated by dividing (a) operating profit by (b) average invested capital over the applicable period. In calculating ROIC for the Company or a Peer Group company, the Committee may adjust for reported special, non-recurring or non-
operating items or the effects of mergers, acquisitions or extraordinary transactions. The Committee may establish rules for calculating ROIC for purposes of ensuring consistency in calculations across the Company and the Peer Group.
3. Vesting Upon Death or Disability. The Performance Units shall vest in the event of the Participant's death or termination on account of Disability prior to the fourth anniversary of the date of the Date of Grant. In such case, the Vesting Date shall be the date of death or termination, as the case may be; and the number of Shares to be paid out to such Participant shall equal $100 \%$ of the number of Performance Units.
4. Vesting Upon Change in Control. Upon a Change in Control prior to the fourth anniversary of the Date of Grant, the Performance Units will vest, with the Vesting Date being the date of such Change in Control. In such case, the number of Shares to be paid out will equal $100 \%$ of the number of Performance Units. Notwithstanding the foregoing, the Performance Units will not vest and will not be paid out upon a Change in Control if an award meeting the following requirements (the "Replacement Award") is provided in substitution hereof:
(i) it relates to equity securities of the Company or its successor following the Change in Control or another entity that is affiliated with the Company or its successor following the Change in Control and such equity securities are publicly traded and registered under the Securities Exchange Act of 1934;
(ii) it has a value at least equal to the value of this award as of the date of the Change in Control as determined by the Committee, assuming payout at $100 \%$ of the number of Performance Units on the date of the Change in Control;
(iii) it does not contain any performance goals and will be paid out at $100 \%$ of the number of Performance Units awarded (without regard to paragraph 2 above) subject only to continued service with the Company or its successor following the Change in Control through the fourth anniversary of the original Date of Grant. If a Change of Control occurs prior to certification of the number of shares available for this award pursuant to Section 8 of the Performance Unit Agreement, then the Pool Provisions shall not be applicable and this award shall cover the full number of Performance Units on the first page hereof.
(iv) its forfeiture provisions, transfer restrictions and any other restrictions lapse upon the fourth anniversary of the original Date of Grant; provided, however, that such restrictions will lapse, and the award will fully vest and be paid out at $100 \%$ of the number of Performance Units, if within two years after the date of the Change in Control, the Participant's employment is terminated by the Company without Cause or the Participant resigns for Good Reason; and
(v) its other terms and conditions relating to the service condition, dividend equivalents and a subsequent change in control are not less favorable to the Participant than the terms and conditions of this award.

Without limiting the generality of the foregoing, the Replacement Award may take the form of a continuation of this award or such other form approved by the Committee provided that the preceding requirements of this subsection are satisfied. The determination of whether the requirements are satisfied shall be made by the Committee, as constituted immediately prior to the Change in Control, in its sole discretion. In the event of a Change in Control, Participant agrees to accept a Replacement Award meeting the above conditions in substitution of this award.
"Good Reason" means: (i) a change in the Participant’s job title or position, which results in a material diminution in authority, duties or responsibilities; (ii) any material breach of this agreement by the Company of any material obligation of the Company for the payment or provision of compensation or other benefits to the Participant; (iii) a material diminution in Participant's compensation or a failure by the Company to provide an arrangement for the Participant for any fiscal year of the Company giving the Participant the opportunity to earn an incentive award for such year; or (iv) the Company requires Participant to materially change the location of Participant's principal office; provided such new location is one in excess of 35 miles from the location of Participant's principal office before such change.

## Exhibit B

## Vesting Provision-Committee Determination Component

1. Vesting Date. Vesting Date means, with respect any vesting of Performance Units pursuant to this Exhibit B, the fourth anniversary of the Date of Grant, and in such case only if the number of Shares to be paid out under Exhibit A is determined pursuant to paragraph 2 of Exhibit A. No vesting shall occur or Shares paid out pursuant to this Exhibit B if vesting pursuant to Exhibit A occurs as a result of the Participant's death or termination due to Disability; or if a Change in Control occurs prior to the fourth anniversary of the Date of Grant. Dividend equivalents shall be paid on all Shares paid out upon vesting pursuant to Section 7 of the Performance Unit Agreement.
2. Committee Determination. The Committee shall have the right to determine, on or around the Vesting Date, to pay out a number of Shares vested pursuant to this Exhibit B. The number of Shares that the Committee may pay out on vesting pursuant to this Exhibit B will depend upon the Company's ranking on average ROIC against the Peer Group (as determined pursuant to Exhibit A). The Committee is not obligated to award any Shares pursuant to this Exhibit B. The maximum number of Shares that may be paid out pursuant to vesting under this Exhibit B are as follows:

Peer Group Ranking
Top quartile

## Applicable Percentage

Up to 20\% of the Performance Units

Up to 20\% of the Performance Units
Up to $40 \%$ of the Performance Units No Performance Units may be vested under this Exhibit B

The Committee shall determine whether to pay out any Shares and the amount of Shares to be paid out. In making such determination, the Committee may consider the level of ROIC performance within the quartile, the business conditions relating to the Company's and the Peer Group companies’ performance during the Performance Period and such other factors that the Committee determines to be appropriate for purposes of assessing performance over the Performance Period.

## Packaging Corporation of America

## 2016 Performance-Based Equity Award Pool for Executive Officers

Adopted June 20, 2016

1. Purpose. The Committee intends to grant the Full Value Awards described herein (the "Awards") to the executive officers of Packaging Corporation of America (the "Company") named herein (the "Participants") pursuant to the Company’s Amended and Restated 1999 Long-Term Equity Incentive Plan (the "Plan") on or around the date hereof. The Section 162(m) Subcommittee desires to designate such Awards as Performance-Based Compensation and hereby adopts an award pool (the "Award Pool") of Shares available for such Awards subject to the Performance Criterion and other terms and conditions provided herein. Capitalized terms not otherwise defined herein shall have the meanings given to them in the Plan.
2. Performance Criterion. The Company's Earnings before Interest, Taxes, Depreciation and Amortization ("EBITDA") shall be established as the Performance Criterion for the Award Pool.
3. Award Pool Shares. The aggregate amount of Shares (the "Award Pool Shares") available for award to all Participants in the Award Pool shall be the number equal to (i) 3.0\% of the Corporation's EBITDA for the period beginning April 1, 2016 and ending March 31, 2017 (the "EBITDA Performance Period"); divided by (ii) the closing price of a Share on the New York Stock Exchange on the date hereof.
4. Awards. Awards shall be in the form of "Restricted Stock Awards" (pursuant to the Restricted Stock Award Agreements attached hereto as Exhibit A) and "Performance Unit Awards" (pursuant to the Performance Unit Agreement attached hereto as Exhibit B).
5. Participant Percentages and Maximums. The percentage of Award Pool Shares (the "Award Pool Percentage") and the maximum number of Award Pool Shares (the "Participant Maximum") available to be awarded to each Participant for each Award, shall be as set forth in the following table. For each Participant, half of his percentage of Award Pool shares is allocated to each type of Award.

| Participant | Percentage of Award Pool <br> Shares | Maximum for Restricted <br> Stock Awards (in shares) | Maximum for <br> Performance Units (in <br> shares)* |
| :--- | :---: | :---: | :---: |
| Mark W. Kowlzan | $40 \%$ | 33,469 | 40,163 |
| Thomas A. Hassfurther | $25 \%$ | 21,459 | 25,751 |
| Robert P. Mundy | $10 \%$ | 6,660 | 7,992 |
| Charles J. Carter | $12.5 \%$ | 6,913 | 8,296 |
| Thomas W.H. Walton | $6.25 \%$ | 4,255 | 5,106 |
| Kent A. Pflederer | $6.25 \%$ | 4,255 | 5,106 |

## 6. Certification of Award Pool. The Committee (or the Section 162(m)

Subcommittee) shall certify the number of Award Pool Shares available for each Participant for each Award (the "Certified Share Number") within 75 days after the end of the EBITDA Performance Period, which shall be calculated by (a) multiplying (i) the Award Pool Percentage for such Participant for such Award by (ii) the aggregate number of Award Pool Shares and (b) if applicable, reducing the number calculated pursuant to subsection (a) to the Participant Maximum for such Award.
7. Award Agreement. The Committee (or the Section 162(m) Subcommittee) will reduce (but not increase) the actual number of Shares to be awarded to a Participant on vesting of an Award from the Certified Share Number for such Award to the extent necessary to achieve the level of vesting provided in the Award agreements attached hereto.
8. Plan Provisions. The Award Pool and Awards described herein are subject to, and made pursuant to, the terms and conditions of the Plan. If there is any inconsistency between the

## CEO CERTIFICATION PURSUANT TO SECTION 302 <br> OF THE SARBANES-OXLEY ACT OF 2002

I, Mark W. Kowlzan, certify that:
(1) I have reviewed this quarterly report on Form 10-Q of Packaging Corporation of America (PCA);
(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of PCA as of, and for, the periods presented in this report;
(4) PCA's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for PCA and have:
a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to PCA, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
c) evaluated the effectiveness of PCA's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
d) disclosed in this report any change in PCA's internal control over financial reporting that occurred during PCA's most recent fiscal quarter (PCA's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, PCA's internal control over financial reporting; and
(5) PCA's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to PCA's auditors and the Audit Committee of PCA's Board of Directors (or persons performing the equivalent functions):
a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect PCA's ability to record, process, summarize and report financial information; and
b) any fraud, whether or not material, that involves management or other employees who have a significant role in PCA's internal control over financial reporting.

/s/ Mark W. Kowlzan

## Mark W. Kowlzan

Chief Executive Officer
Date: August 5, 2016

## CFO CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Robert P. Mundy, certify that:
(1) I have reviewed this quarterly report on Form 10-Q of Packaging Corporation of America (PCA);
(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of PCA as of, and for, the periods presented in this report;
(4) PCA's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for PCA and have:
a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to PCA, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
c) evaluated the effectiveness of PCA's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
d) disclosed in this report any change in PCA's internal control over financial reporting that occurred during PCA's most recent fiscal quarter (PCA's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, PCA's internal control over financial reporting; and
(5) PCA's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to PCA’s auditors and the Audit Committee of PCA's Board of Directors (or persons performing the equivalent functions):
a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect PCA's ability to record, process, summarize and report financial information; and
b) any fraud, whether or not material, that involves management or other employees who have a significant role in PCA's internal control over financial reporting.

| /s/ Robert P. Mundy |
| :--- |
| Robert P. Mundy |
| Senior Vice President and Chief Financial Officer |

Date: August 5, 2016

# CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER AND <br> CHIEF FINANCIAL OFFICER <br> PURSUANT TO 18 U.S.C. §1350, <br> AS ADOPTED PURSUANT TO <br> SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002 

I, Mark W. Kowlzan, Chief Executive Officer of Packaging Corporation of America (the "Company"), certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:
(1) The Quarterly Report of the Company on Form 10-Q for the period ended June 30, 2016 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
(2) The information contained in such Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

| /s/ Mark W. Kowlzan |
| :--- |
| Mark W. Kowlzan |
| Chief Executive Officer |

Date: August 5, 2016

I, Robert P. Mundy, Chief Financial Officer of Packaging Corporation of America (the "Company"), certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:
(1) The Quarterly Report of the Company on Form 10-Q for the period ended June 30, 2016 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
(2) The information contained in such Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

